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# TOEFL®

## READING

iBT Edition

David Cho

학습자료 제공 goHackers.com / 동영상강의 ChampStudy.com

iBT 실전 문제 최다수록, 실제 시험과 가장 유사한 지문과 문제 구성

iBT 대비 실전용 CD 포함

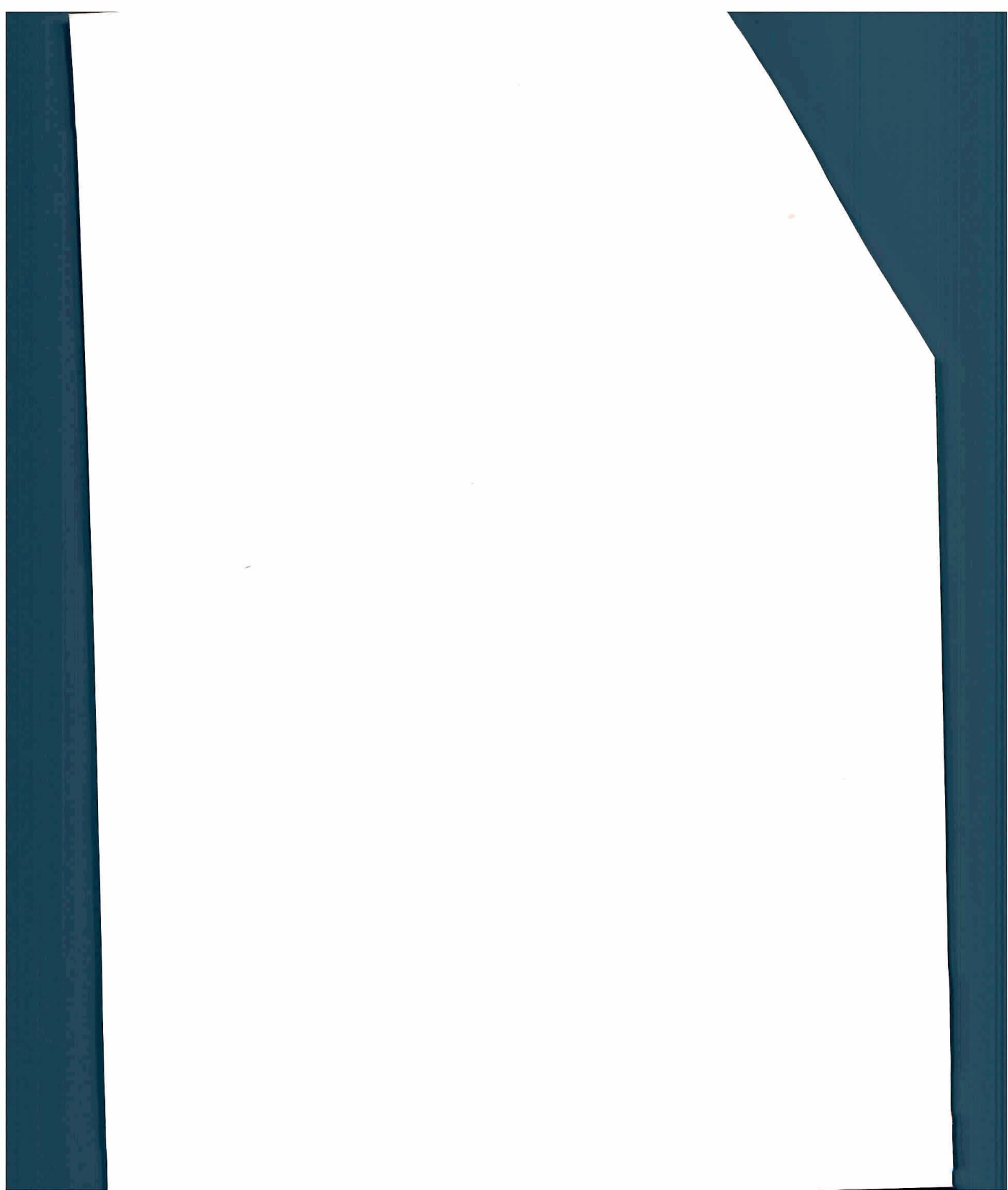


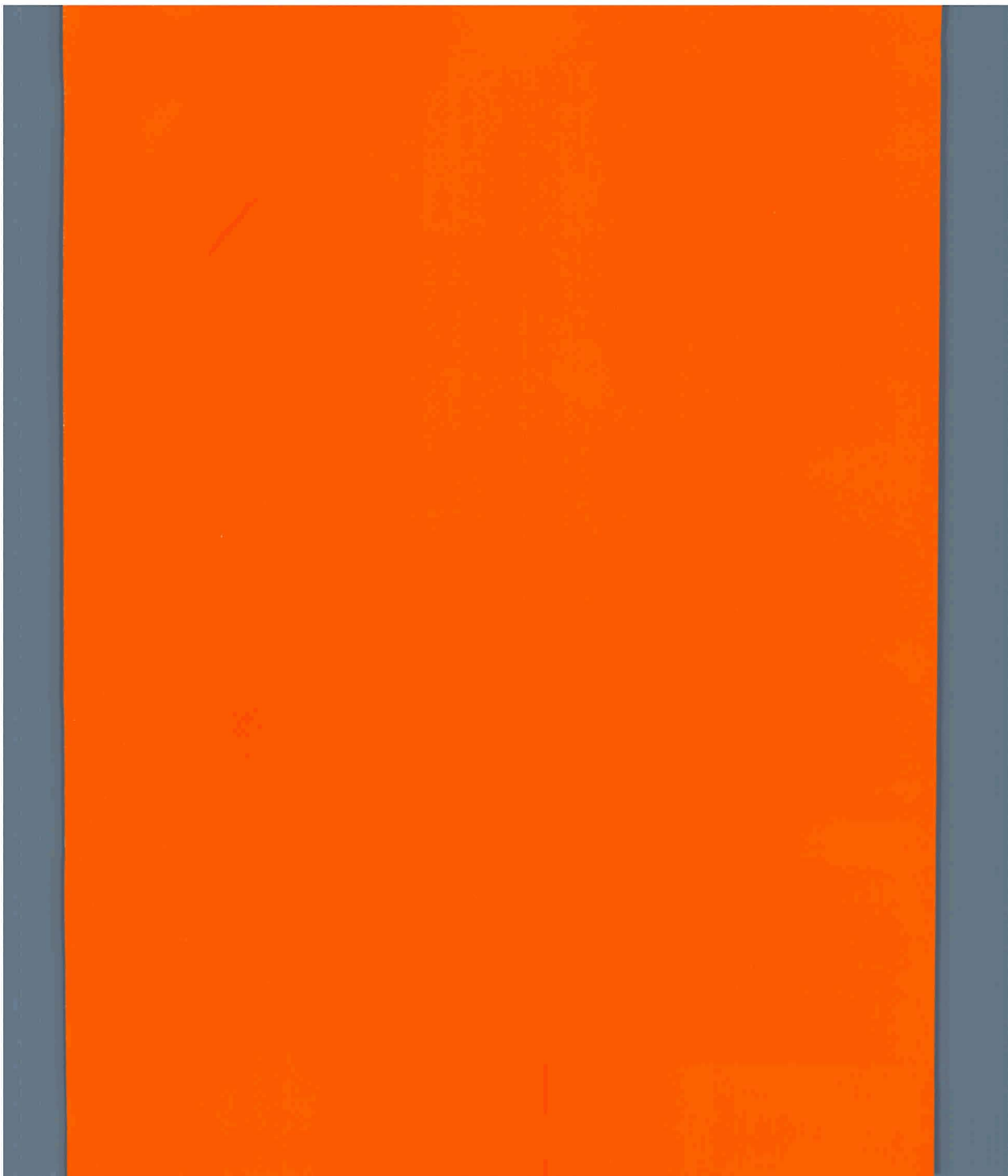
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## Hackers TOEFL Reading

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## PREFACE

토플이 단순히 시험 준비뿐 아닌 실제의 영어 실력 향상을 통해 사회에 공헌을 한다는 마음으로 집필을 시작했던 해커스 토플 시리즈가 이제는 10권이 넘어섰습니다. 이 모든 학습교재가 모든 서점의 토플 학습 분야에서 1위 ~10위를 점하며 베스트셀러를 넘어 스테디셀러로 당당히 입지를 굳히고 있음은 해커스 토플 교재에 내재하는 교육 철학의 방향이 옳음을 증명하기에 기쁩니다.

또한, 해커스 가족들과 함께한 초기의 작은 정보나눔터 goHackers.com은 엄청난 속도로 발전하는 인터넷 시대를 선도하는 최고의 사이트로 자리매김하고 있습니다. 이러한 해커스의 발전은 시간의 흐름에 의해 저절로 이루어졌거나 한순간의 우연이 아닌, 수많은 해커스 가족들이 잠 못 이루고 흘린 땀과 눈물의 결실이기에 더욱 뿌듯하고 자랑스럽게 생각합니다.

'원리와 공식'으로 대표되는 해커스 토플 그래머나, '논리적 사고 발달을 위한 토론식 독해서'인 해커스 토플 리딩을 비롯한 해커스 토플 시리즈로 학습한 많은 분들이 원하는 점수를 획득했을 뿐 아니라, 실제 유학 생활의 실력으로도 이어져 도움을 받았다고 합니다. 시험 성적 상상을 위한 단순 수험서가 아닌 제대로 된 영어 학습의 고전서를 세상에 선보이겠다는 꿈을 가지고 해커스를 일궈 온 것이 제대로 검증받고 있다는 생각입니다.

iBT 토플에서는 기존의 문법(Structure) 섹션이 폐지되고 Speaking 섹션이 추가됨과 더불어 여러 영역을 통합적으로 평가하여 기존 시험의 부족한 점을 보완하고 있습니다. 기존에 실행되던 CBT 토플 시험에는 언어의 4영역인 Reading, Listening, Writing, Speaking 중 Speaking, 즉 말하기 영역을 평가하는 부분이 빠져 있어 안타깝던 차에 이러한 변화에 발맞추어 오랜 기간 과학적이고 심층적인 분석을 통해 기존 CBT 해커스 시리즈들을 언어 학습을 위해 더욱 통합적이며 효율적인 방향으로 업그레이드하였습니다.

특히 해커스 iBT 토플 리딩은 최신 토플 경향의 실전 문제들을 최다 수록하고 있으며, 핵심적인 리딩 전략을 제시함으로써 고득점과 실제 독해 실력 향상을 동시에 이룰 수 있도록 하였습니다. 또한 각 문제 유형을 단계별로 학습할 수 있도록 체계적 구성을 갖추고 있으며, 실제 대학 수업에서 접할 수 있는 지문들을 다양하게 다루어 학습자들이 이 책 한 권으로 완벽하게 실전을 대비할 뿐 아니라 유학 생활에 도움이 되도록 하였습니다.

오랜 연구와 시도로 새로운 감동을 두른 또 하나의 고전 해커스 토플 iBT 리딩 책이 여러분이 낯설어할지도 모를 새로운 시험의 확실한 해결책이 되어 주리라 믿으며, 나아가 여러분이 꿈을 이루어나가는 길에 밝은 빛과 길잡이가 되기를 기원합니다.

*David Cho*



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TOEFL  
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reading

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# iBT TOEFL이란?

토플 출제기관인 ETS에서는 2005년 9월부터 미국을 시작으로 차세대 토플(Next Generation TOEFL)인 iBT TOEFL (Internet-based test)을 시행하고 있다. iBT TOEFL이란 인터넷을 통해 실시되는 시험으로 유학생들이 토플 시험에서 고득점을 얻음에도 불구하고 실제 미국 대학 생활에서 영어 구사 능력이 떨어진다는 기존 테스트의 문제점을 보완하고자 한 것이다.

## iBT TOEFL의 특징

### 1. 문법영역이 사라지고 말하기 영역이 평가된다

듣기(Listening), 말하기(Speaking), 읽기(Reading), 쓰기(Writing)의 네 개 영역이 두루 평가됨에 따라 문법(Structure)영역이 없어지고 기존에 없었던 말하기(Speaking) 영역이 새로 추가되었다.

### 2. 통합 평가 영역이 출제된다

iBT TOEFL에서는 듣기(Listening), 말하기(Speaking), 읽기(Reading), 쓰기(Writing) 각 영역의 한 가지 능력만을 평가하는 유형의 문제 외에 '읽고 들은 후 질문에 대한 답변 말하기', '들은 후 질문에 대한 답변 말하기', '읽고 들은 후 질문에 대한 답을 글로 쓰기'와 같은 신개념의 통합형 문제가 출제된다.

### 3. Note-taking이 허용된다

네 개 시험영역 모두 시험 도중 Note-taking을 허용하고 있어, 문제를 풀 때 Note-taking 내용을 참고 할 수 있다. 단, Note-taking 용지는 시험이 끝나면 모두 수거된다.

### 4. 온라인 성적 확인이 가능하며 성적표에 실력평가와 피드백 항목이 주어진다

시험일로부터 15일(주말, 공휴일 제외)이 지나면 온라인 상에서 본인의 성적을 확인할 수 있다. 이때 iBT TOEFL 성적표에는 총점과 함께 각 영역별 수험자의 실력 정도가 표시되며, 시험 성적에 근거하여 수험자가 실제로 어느 정도의 영어를 구사할 수 있는가에 대한 설명이 함께 주어진다.

### 5. CAT (Computer Adaptive Test) 출제방식이 아니다

응시자의 실력에 따라 난이도가 컴퓨터상에서 조절되어 출제되는 CAT (Computer Adaptive Test) 방식이 아니라, 정해진 문제들이 일정한 조합에 따라 출제된다. 따라서 기존 CAT 방식에서 가졌던 시험초반 문제를 반드시 잘 맞추어야 고득점을 얻는다는 부담감이 없다.

## iBT TOEFL의 구성

시험영역	출제 지문 및 문항 수	시험 시간	점수 범위	iBT TOEFL상의 변화 및 특징
Reading	<ul style="list-style-type: none"> <li>• 3-5개 지문 출제</li> <li>• 1지문당 길이: 700단어</li> <li>• 각각 12-14문항 출제</li> </ul>	60-100분	0 - 30	<ul style="list-style-type: none"> <li>• 지문 길이가 길어졌으며, 다양한 구조(multiple-focus)의 지문이 출제됨</li> <li>• 문장 간략화하기(Sentence Simplification), 요약표 완성하기(Summary), 범주표 완성하기(Category Chart) 문제 추가</li> </ul>
Listening	<ul style="list-style-type: none"> <li>• 2-3개 대화 출제</li> <li>• 1대화당 길이: 3분</li> <li>• 각각 5문항 출제</li> <li>• 4-6개 강의 출제</li> <li>• 1강의당 길이: 3-5분</li> <li>• 각각 6문항 출제</li> </ul>	60-90분	0 - 30	<ul style="list-style-type: none"> <li>• 대화 및 강의의 길이가 길어지고, 실제 상황에 더욱 가까워짐</li> <li>• 들으면서 Note-taking하는 것이 허용됨</li> <li>• 화자의 태도, 목적 및 동기를 묻는 문제 추가</li> <li>• 미국 이외의 영어권 국가 네이티브의 발음 도입</li> </ul>
휴식	10분			
Speaking	2개 독립 문제 (independent tasks) 4개 통합 문제 (integrated tasks)	20분 준비시간: 15~30초 답변시간: 45~60초	0 - 4 (총점은 0 - 30)	<ul style="list-style-type: none"> <li>• 독립형 문제(1-2번) 익숙한 주제에 대해 의견 말하기</li> <li>• 통합형 문제(3-6번) 읽고 들은 내용에 기초하여 말하기</li> </ul>
Writing	1개 통합 문제 (integrated task) 1개 독립 문제 (independent task)	20분 30분	0 - 5 (총점은 0 - 30)	<ul style="list-style-type: none"> <li>• 통합형 문제가 추가됨</li> <li>• 반드시 타이핑 해야 함</li> </ul>



## iBT 토플 관련 제반사항

시험 소요 시간	약 4시간
총점	120점
진행 순서	읽기(Reading), 듣기(Listening), 말하기(Speaking), 쓰기(Writing) 순으로 진행
실시일	시험은 1년에 30~40회 정도 실시되며, 각 나라와 지역별로 시험일의 차이가 있음
시험장소	시험은 전용 컴퓨터 단말기가 마련된 ETS의 Test center에서 치러짐
접수 방법	<ul style="list-style-type: none"> <li>• 인터넷 접수 시험 응시일로부터 최소 7일 전까지 인터넷상에서 등록. 신용 카드 및 전자 수표로 결제 가능. 상시 등록 가능. 등록 확인 e-mail 발송됨(www.etskorea.or.kr)</li> <li>• 전화 접수 시험 응시일로부터 최소 7일 전까지 전화로 등록. 신용 카드가 필요하며 접수 번호(registration number), 시험 일자, 리포팅 횟수, 시험장 주소를 전화상에서 알려줌(Tel. 82-2-3211-1233)</li> <li>• 우편 접수 iBT TOEFL Bulletin에 있는 등록 신청서(registration form)를 작성하여, 지불 결제 수단(수표 및 우편환만 허용, 현금을 보내면 추가 비용이 있음)과 함께 우편으로 시험 응시일로부터 최소 4주 전까지 등록(주소: 서울시 마포구 염리동 168-15번지 한미 교육 위원단, 프로메트릭 홀브라이트 빌딩 121-874)</li> </ul>
시험 비용	<ul style="list-style-type: none"> <li>• iBT TOEFL 시험 비용: US \$170</li> <li>• 취소한 성적 복원 신청 비용: US \$20</li> <li>• 시험 일자 조정 비용: US \$60</li> <li>• 추가 리포팅 비용: US \$17 (1 대학 당)</li> </ul>
지불 수단	<ul style="list-style-type: none"> <li>• 신용 카드</li> <li>• 미국 달러 수표를 비롯한 기타 통용 수표</li> <li>• 전자 수표(e-check) (미국 구좌 소지자에 한함)</li> <li>• 우편환</li> </ul>
시험 등록 취소	<ul style="list-style-type: none"> <li>• 등록 센터를 직접 방문하거나 웹사이트에 접속하여 등록을 취소, 우편이나 e-mail로는 불가능</li> <li>• 시험일로부터 최소 4일 전까지 등록을 취소해야 \$85를 환불받을 수 있음</li> </ul>
시험 당일 주의사항	<ul style="list-style-type: none"> <li>• 반드시 공인된 신분증(여권, 운전 면허증, 주민등록증, 군인 신분증) 원본 지참</li> <li>• 접수 번호(Registration Number) 지참</li> </ul>
시험 관련 절차	<ul style="list-style-type: none"> <li>• 각 영역에서 최소 한 개 이상의 질문에 답해야 공식 성적표가 발송됨</li> <li>• 10분간의 휴식 시간이 주어지며, 주어진 시간 초과시 퇴장 당하거나 성적이 취소될 수 있음</li> </ul>
성적 및 리포팅	<ul style="list-style-type: none"> <li>• 시험 응시일로부터 15일(주말, 공휴일 제외) 후에는 온라인상에서 성적 확인 가능</li> <li>• 시험일에 자동적으로 4개 기관까지 성적 리포팅 가능. 시험 응시일로부터 15일 후 응시자와 리포팅 장소로 성적이 발송되며 7~10일 정도 소요됨</li> <li>• 성적표의 유효기간은 2년</li> <li>• 시험이 끝날 때 성적을 취소할 수가 있으며 만약 취소한 성적을 다시 받아보고자 한다면 시험 응시일로부터 10일 이내로 주최기관측에 연락을 취해야 함</li> <li>• 추가로 리포팅을 하고자 할 때에는 www.ets.org/toefl로 접속하여, 토플 성적 리포팅 신청서(TOEFL Score Report Request Form)를 작성하면 됨</li> </ul>

\* www.goHackers.com의 토플길라잡이를 참고하시면 꾸준히 업데이트 되는 iBT TOEFL 관련 정보를 확인하실 수 있으며, 시험 접수와 결과 확인 등 각종 관련 링크가 정리되어 편하게 이용하실 수 있습니다.

## iBT와 CBT의 비교

	iBT	CBT
시험 영역	Listening Speaking Reading Writing	Listening Structure (Grammar) Reading Writing
시험 시간	4시간	3.5시간
Note-taking	허용됨	허용 안됨
Computer 적응 방식	CAT 방식이 아님	CAT 방식
총 점수 범위	0 - 120	0 - 300

## iBT와 CBT의 점수 비교

iBT Total	CBT Total	iBT Total	CBT Total	iBT Total	CBT Total
120	300	86-87	227	53	153
120	297	84-85	223	52	150
119	293	83	220	51	147
118	290	81-82	217	49-50	143
117	287	79-80	213	48	140
116	283	77-78	210	47	137
114-115	280	76	207	45-46	133
113	277	74-75	203	44	130
111-112	273	72-73	200	43	127
110	270	71	197	41-42	123
109	267	69-70	193	40	120
106-108	263	68	190	39	117
105	260	66-67	187	38	113
103-104	257	65	183	36-37	110
101-102	253	64	180	35	107
100	250	62-63	177	34	103
98-99	247	61	173	33	100
96-97	243	59-60	170	32	97
94-95	240	58	167	30-31	93
92-93	237	57	163	29	90
90-91	233	56	160	28	87
88-89	230	54-55	157	26-27	83

iBT Reading 영역에서는 학생들이 대학 교재 수준의 지문을 읽고 얼마나 제대로 이해하고 있는지를 평가한다. 다양한 분야의 지문이 등장하지만, 문제에 답하기 위해 해당 지문에 관한 특별한 배경 지식이 필요하지는 않다. 문제를 풀기 위해 필요한 모든 정보는 지문에 포함되어 있다.

## iBT Reading 구성

- 지문의 수

시험은 2개 또는 3개의 파트로 구성되며, 2개 파트로 나뉠 때는 총 3개의 지문이 출제되고 3개 파트로 나뉠 때는 총 5개의 지문이 출제된다. 각각의 경우, 첫 파트에는 1개의 지문이 등장하고 두 번째, 세 번째 파트에는 2개의 지문씩 나온다.

- 지문의 성격

주로 exposition(설명), argumentation(논증), historical biographical/event narrative(역사적 인물 또는 사건에 관한 서술) 등의 성격을 가지고 있는 지문이 출제된다.

- 지문의 구조

다양한 구조를 가진 지문이 출제되며 특히 classification(분류), comparison/contrast(비교/대조), cause/effect(원인/결과), problem/solution(문제/해결), analysis(분석) 등의 구조를 가진 지문이 자주 등장한다.

- 문제 형식

크게 사지선다, 지문 클릭(지문에 문장 삽입하기), 또는 주요 정보를 분류하여 요약표(Summary)나 범주표(Category Chart)에 넣기 등 3가지 형식의 문제가 출제된다.

## iBT Reading 특이사항

- Note-taking이 허용됨

- 새로운 문제 유형

Sentence Simplification, Summary, Category Chart

- Glossary 기능

전문 용어나 해당 토픽의 문맥 내에서 특별한 의미를 가지고 있는 어휘의 경우, 지문에 파란색으로 밑줄이 그어져 있고 이 단어를 클릭하면 해당 어휘의 definition(정의)이 화면에 나타난다.

- Review 기능

Review 버튼을 이용하여 현재 풀고 있는 파트 내의 모든 문제의 답 체크 여부(Answered, Not Answered, Not Seen)를 한 눈에 확인할 수 있다.

- 지문의 title이 제시됨

## iBT Reading 문제 유형 분석

문제 형태	해당 문제 유형	유형 분석	배점	지문당 문항수
Identifying Details 지문 내용에 대한 기본적인 이해를 요하는 문제	Sentence Simplification	한 문장의 핵심 정보를 가장 간결하게 바꾸어 쓴 것을 선택하는 유형	1점	1개
	Fact & Negative Fact	지문에 명시적으로 제시된 세부 정보를 지문에서 찾아 가장 정확하게 답한 것을 선택하는 유형으로 Fact 문제는 지문의 내용과 일치하는 것, Negative Fact 문제는 그 반대의 것을 선택해야 함	1점	3-4개
	Vocabulary	주어진 어휘 또는 구의 의미를 알아내고 이와 가장 유사한 의미를 가진 어휘를 선택하는 유형	1점	3-4개
	Reference	지시어가 가리키는 지시대상을 선택하는 유형	1점	1개
Making Inference 지문 내용의 기저에 놓인 실질적인 의미를 파악하는 문제	Rhetorical Purpose	작가가 사용한 특정 표현의 의도를 가장 잘 나타내고 있는 것을 선택하는 유형	1점	1-2개
	Inference	지문에 명백하게 드러나 있지는 않지만 제시된 정보를 바탕으로 추론 가능한 것을 선택하는 유형	1점	1-2개
Recognizing Organization 지문 내용을 종합해서 풀어야 하는 문제	Insertion	주어진 한 문장을 지문에 지정되어 있는 4개의 [■]에 삽입하는 유형	1점	1개
	Summary	6개의 보기 중, 지문의 주요 내용을 언급하고 있는 3개를 골라 지문 요약을 완성시키는 유형	2점 (부분점수 있음)	0-1개
	Category Chart	지문에서 비교 대조되고 있는 정보들을 각 category (범주)에 맞게 분류하여 정리하는 유형으로 보기가 7개일 때는 5개, 보기가 9개일 때는 7개를 선택하여 분류해야 함	3점 또는 4점 (부분점수 있음)	0-1개



### What to Practice First

#### 1. 토플에 자주 출제되는 토플에 관한 배경지식을 쌓는다

배경 지식을 많이 알고 있을수록 글의 내용을 이해하는 것이 수월하므로 시험에 자주 출제되는 토플과 관련된 내용을 많이 알아둔다.

#### 2. 어휘력을 기른다

어휘력이 풍부해야 글을 읽는데 막힘이 없으므로 평소에 많은 어휘를 외워두도록 한다. 어휘 암기 외에도 글에 사용된 어휘 중 익숙하지 않은 것을 골라 주위 문맥을 이용하여 그 뜻을 추측해 보는 연습을 병행한다.

#### 3. 글을 읽을 때 skimming과 scanning을 한다

글의 대략의 주제를 빨리 파악하기 위해서는 각 단락의 앞부분만을 빠르게 훑어 읽는 skimming을 하는 것이 좋다. 또한 keyword를 지문에서 빠르게 찾아보는 scanning을 통해 지문에서 특정 정보에 관한 내용을 찾아 확인해보는 연습을 함께 한다.

#### 4. Paraphrase 연습을 한다

시험에 출제되는 거의 모든 문제와 답은 paraphrase 되어 있으므로 한 단어부터 시작해 한 문장, 한 단락 전체를 paraphrase 해보는 연습을 한다. paraphrase를 할 때는, 단순히 어휘만 동의어로 바꾸어 쓰는 것이 아니라 문장 구조까지 바꾸어서 표현해 보는 것이 효과적이다.

#### 5. 글의 구조를 파악한다

글이 어떤 방식으로 구성되어 있는지 파악하면 글 전체의 흐름을 이해하는데 도움이 된다. 문장간 관계 확인부터 시작하여 여러 단락으로 이루어진 글의 경우 각 단락이 어떻게 유기적으로 연결되어 있는지 확인해본다.

#### 6. 요약 연습을 한다

글을 읽고 글 전체의 내용을 이해한 후 요약(summary)을 해본다. 글을 요약할 때는 세부 정보는 빼고 중심 정보만을 추려내어 글의 주제가 무엇이었는지 정리한다. 이 때, 글에 사용된 표현을 그대로 쓰지 말고 paraphrase를 하여 자신의 표현으로 정리해 보는 것이 좋다.

#### 7. 영문으로 된 글을 자주 읽는다

독해력은 많이 읽을수록 향상되므로 평소에 다양한 분야의 글을 자주 접하도록 하되, 대학 교과과정에 사용될만한 학술적 스타일의 글을 특히 많이 읽도록 한다.

#### 8. 시험을 보기 전에 시험과 관련된 Direction을 미리 숙지해둔다

시험을 볼 때 필요한 컴퓨터 사용법 및 리딩 섹션의 Direction 등은 시험 전에 미리 확인하고 익혀두어 시험을 볼 때는 시험에만 정신을 쏟을 수 있도록 한다. 책에 들어있는 실전 CD를 활용하도록 한다.

## How to Improve Your Score

### 1. Note-taking을 활용한다

지문을 읽을 때, 글 전체의 주제 및 각 단락의 중요 정보 등을 Note-taking 해 놓으면 지문의 중심 정보와 세부 정보를 구분하여 이해하고 각 단락간 관계를 효율적으로 파악할 수 있다. 특히, Summary 문제와 Category Chart 문제를 풀 때, Note-taking 내용을 참고하여 답을 고르면 효과적이다.

### 2. 시간 분배를 효율적으로 한다

한 파트에 지문 1개가 있으면 20분, 2개가 있으면 40분 내에 해당 파트의 모든 지문을 읽고 문제를 풀어야 한다. 지문이 2개가 들어있을 경우, 첫 번째 지문에 너무 많은 시간을 소비해 두 번째 지문을 제대로 풀지 못하는 상황이 발생할 수도 있으므로 화면 상단의 시간 카운트를 활용하여 각 지문에 적절한 시간 분배를 하도록 한다.

### 3. 배점이 높은 문제에 좀 더 많은 시간을 투자한다

각 지문의 마지막에 출제되는 Summary 문제와 Category Chart 문제의 경우, Summary 문제에는 2점, Category Chart 문제에는 3~4점이 배점되므로 이 두 유형에 좀 더 많은 시간을 배분하여 문제를 풀어야 높은 점수를 받을 수 있다. 앞 문제에서 너무 오랜 시간을 끌어 이 두 유형을 풀지 못하고 넘어가는 일이 발생하지 않도록 한다.

### 4. 시간이 모자랄 때는 다소 난이도가 낮은 문제부터 공략한다

Vocabulary 문제나 Reference 문제는 다른 유형에 비해 상대적으로 문제를 풀기가 쉽다. 특히 Vocabulary 문제는 한 지문당 3~4개가 출제되어 점수 비중이 높다. 시간이 모자랄 경우에는 이들 유형부터 먼저 답을 골라놓고 다른 문제를 푸는 것이 유리하다.

### 5. Review 기능을 활용한다

Review 버튼을 누르면 현재 풀고 있는 파트 내의 모든 문제의 답 체크 여부가 나오므로 어떤 문제를 안 풀고 넘어갔는지를 바로 확인할 수 있다. 오답에 대한 감점이 없으므로 정답을 확신하지 못하더라도 모든 문제를 답하고 넘어가야 한다.

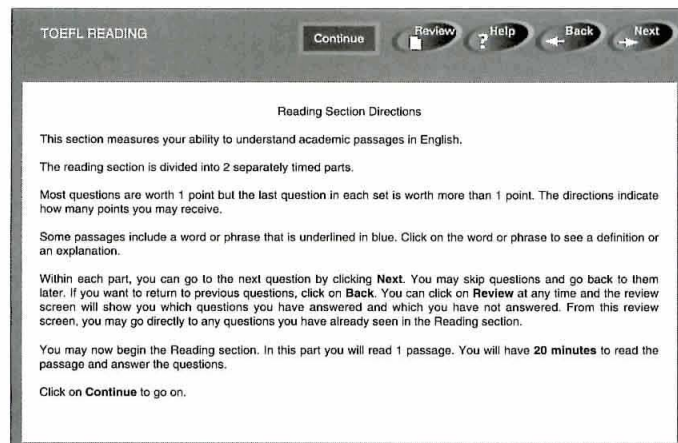
### 6. 집중력을 유지한다

한 지문의 길이가 길어서 글을 읽는 도중 자칫 흐름을 잃기가 쉽다. 마지막 문제를 푸는 순간까지 집중력을 잃지 않도록 해야 한다.

## iBT Reading 화면 구성

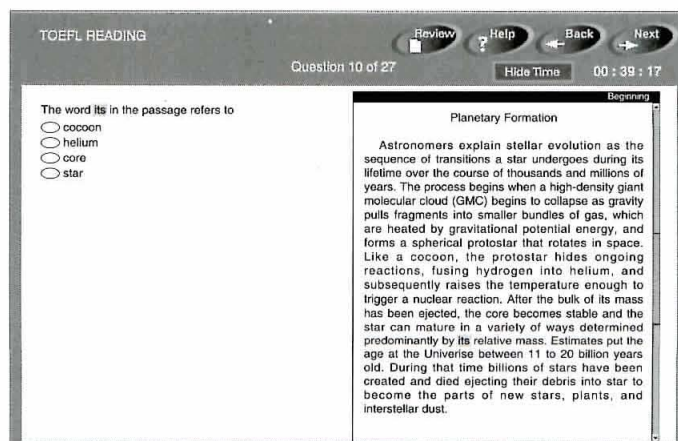
### 1. Reading Direction 화면

리딩 시험 진행 방식에 대한 전반적인 디렉션이 주어진다. Tool Bar 이용에 관한 간단한 설명과 첫 번째 파트에 관한 설명이 이어진다.



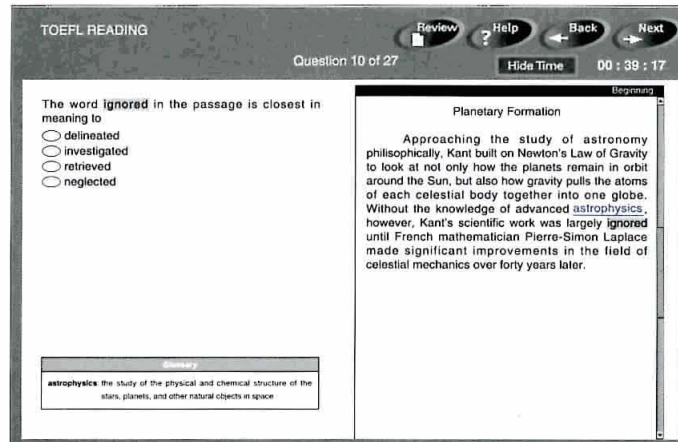
### 2. 지문과 문제 화면

처음에는 지문만 화면의 오른쪽에 등장하며 스크롤을 내려 지문 전체를 한 번 읽은후 Continue 버튼을 눌러야 문제로 넘어갈 수 있다. 문제가 등장하면 지문이 화면의 오른쪽, 문제가 화면의 왼쪽에 한 문제씩 나타난다. 다음 문제로 넘어가려면 Next 버튼을 누른다.



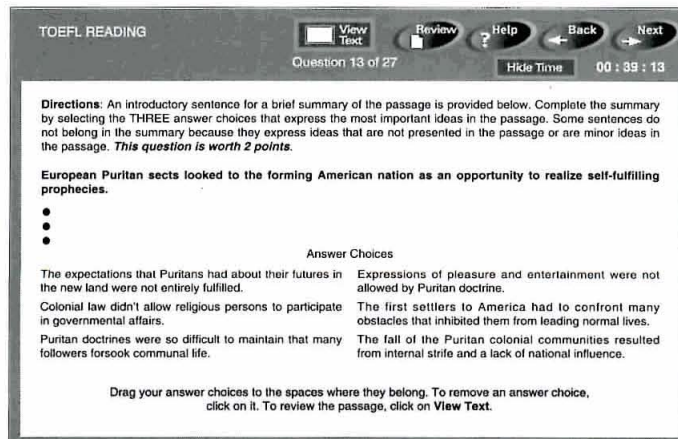
### 3. Glossary 화면

지문에 파란 색으로 밑줄이 그어져 있는 단어를 클릭하면, 좌측의 문제 화면 아래에 해당 단어의 의미가 작은 표로 나타난다.



### 4. Summary 문제 화면

Summary 문제가 나올 때는 화면에서 지문이 사라지고 문제가 화면 전체에 나타난다. 상단에 있는 View Text 버튼을 누르면 지문이 등장하는 화면으로 바뀌고 이 때 다시 문제로 돌아가고 싶으면 상단의 View Question 버튼을 누른다. 답을 선택할 때는 Answer Choices 아래 있는 보기를 정답 자리에 끌어다 붙이고, 답을 바꾸고 싶을 때는 선택했던 보기를 한 번 더 클릭하면 정답 자리에서 사라진다.





## 5. Category Chart 문제 화면

Category Chart 문제가 나올 때 역시 화면에서 지문이 사라지고 문제가 화면 전체에 나타난다. 상단에 있는 View Text 버튼을 누르면 지문이 등장하는 화면으로 바뀌고 이 때 다시 문제로 돌아가고 싶으면 상단의 View Question 버튼을 누른다. 답을 선택할 때는 Answer Choices 아래 있는 보기를 해당 category 아래에 끌어다 붙이고, 답을 바꾸고 싶을 때는 선택했던 보기를 한 번 더 클릭하면 정답 자리에서 사라진다.

TOEFL READING

Question 12 of 12

Hide Time 00 : 19 : 04

Directions: Select the appropriate phrases from the answer choices and match them to the type of people to which they relate. *This question is worth 3 points.*

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on View Text.

Answer Choices

- Claimed that during the fourth stage, children begin to consider future in terms of life decisions
- Believed that the first five stages of humans' mental development occurs during childhood
- Observed that children achieve logical, problem-solving abilities around the age of 10
- Theorized that humans develop in five separate stages
- Observed that during second stage, children begin visualizing objects as other objects
- During the formal operation stage, children under 3 begin to explore their independence
- Emphasized that it was crucial to establish trust within the first year of a baby's life

Piaget

Erickson

## 6. Review 화면

Review 버튼을 누르면 현재 풀고 있는 파트의 문제 목록이 나타나며 각 문제 별로 답을 체크했는지의 여부가 Answered, Not Answered, Not Seen의 3개 형태로 보여진다. 목록에 있는 각 문제를 클릭하면 해당 문제가 음영처리 되며, 이 상태에서 우측 상단의 Go To Question 버튼을 누르면 해당 문제로 바로 이동할 수 있다. Review 버튼을 누르기 전의 화면으로 돌아가려면 Return 버튼을 누른다.

- 문제의 답을 클릭하고 넘어갔을 경우 - 'Answered'로 표시됨
- 문제의 답을 클릭하지 않고 넘어갔을 경우 - 'Not Answered'로 표시됨
- 문제를 아직 보지 않았을 경우 - 'Not Seen'으로 표시됨

TOEFL READING

Question 3 of 12

Return Go To Question

Hide Time 00 : 19 : 36

Below is the list of questions in this part of Reading section. The question you were looking at last is highlighted when you enter Review. The Status column shows if a question has been answered, not answered, or not seen. When a question is worth more than 1 point, the Status column will indicate that the question has been answered, even if it is only partially answered.

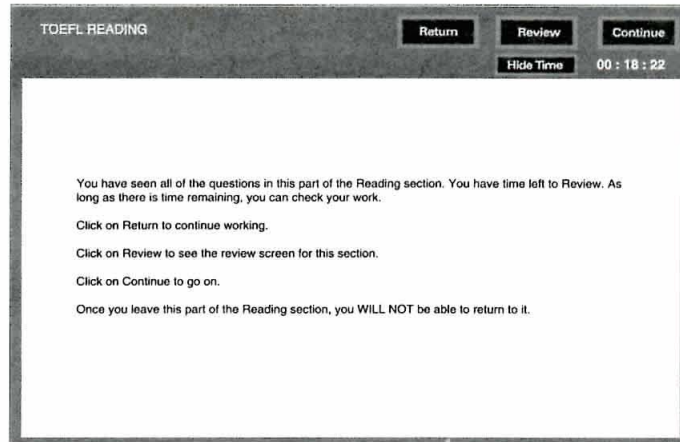
To review a specific question from the list, click on the question to highlight it, then click on Go to Question at the top of the screen. When there are more questions than will fit on the screen, you can use the scroll bar to view the others.

To leave Review and return to where you were in the test, click on Return.

Number	Description	Status
1	The word sequence in the passage is closest in meaning to	Answered
2	The word some in the passage refers to	Not Answered
3	According to the passage, which of the following is true of	Answered
4	The word transition in the passage is closest in meaning to	Answered
5	According to paragraph 2, which of the following can be	Not answered
6	The word variety in the passage is closest in meaning to	Answered
7	Why does the author mention interstellar dust in the	Answered
8	Which of the sentences below best expresses the essential	Answered
9	In paragraph 3, the author states that the following step	Answered
10	Which of the following can be inferred about the Orion	Answered
11	Look at the four squares [■] that indicate where the	Not Seen
12	Directions: An introductory sentence for a brief summary	Not Seen

## 7. 한 개의 파트가 끝났을 때 나오는 화면

한 개 파트가 끝나고 나오는 디렉션 화면에서 Continue 버튼을 눌러 다음 파트로 넘어가면 이전 파트로 되돌아갈 수 없다. 따라서 다음 파트로 넘어가기 전에 Review 기능을 활용하여 현재 풀고 있는 파트의 모든 문제에 답했는지를 다시 한번 확인한다.



## 8. 화면 상단 Tool Bar

화면 상단에 시험 진행 과정을 보조하는 도구 창이 나타난다. 도구 창을 통해, 현재 풀고 있는 문제가 몇 번 문항인지, 남은 시간이 얼마인지 등을 알 수 있다.



Review 버튼을 누르면 답 체크 여부를 확인할 수 있다.



Help 버튼을 누르면 시험 진행 과정과 관련된 정보를 볼 수 있다. 이 때 시험 시간은 계속해서 카운트 된다.



Back 버튼을 누르면 같은 파트 내에서 이전 문제로 돌아갈 수 있다.



Next 버튼을 누르면 다음 문제로 넘어갈 수 있다.



Hide Time 버튼을 누르면 시간 카운트가 창에서 사라지고 Show Time 버튼이 나타나며, Show Time 버튼을 누르면 시간 카운트가 Hide Time 버튼과 함께 창에 다시 나타난다.



View Text 버튼은 Summary 또는 Category Chart 문제가 출제될 때 등장하며, 이 버튼을 누르면 지문 전체가 나타나는 화면으로 바뀐다. 다시 문제 화면으로 돌아가려면 View Question 버튼을 누른다.

# Note-taking for iBT Reading

iBT 토플 리딩에서는 시험을 보는 동안 Note-taking이 허용된다. Note-taking은 지문의 전체적인 흐름에 따라 중심 정보와 세부 정보를 구분하여 이해하도록 해주며 각 단락이 어떤 관계를 가지고 있는지를 보다 명확하게 파악할 수 있도록 해준다. 각 지문의 마지막 문제로 번갈아 출제되는 Summary 문제와 Category Chart 문제를 풀 때 Note-taking 해놓은 것을 참고하면 큰 도움이 된다. Note-taking을 효과적으로 이용하기 위해서는 지문의 모든 내용을 정리하는 것 보다는 중심 정보를 바탕으로 하여 핵심만을 간략하게 정리하는 요령이 필요하다.

## Note-taking 방법

### 1. 지문의 main topic을 간단히 쓴다.

지문의 도입부를 읽으면서 keyword를 이용하여 main topic을 간략히 적는다. 도입부에는 앞으로 지문에서 전개될 내용이 제시되므로 글의 방향 및 주제를 대략 알 수 있다. 자주 등장하는 keyword를 사용하여 main topic을 적어둔다. 이 때, 완전한 문장으로 적을 필요는 없다.

### 2. 각 단락의 중심 정보와 세부 정보를 구분하여 적는다.

글 전체에 하나의 주제가 있는 것처럼 각 단락 역시 하나의 중심 정보를 가지고 단락이 구성된다. 따라서 각 단락 별로 중심 정보를 먼저 적고 그 아래에 그와 관련된 세부 정보를 구분하여 정리한다.

#### • 단락별 Note-taking의 예

•	P1. 2 types of planets: Terrestrial vs. Jovian
•	P2. Terrestrial
	- Mercury, Venus, Earth, Mars
	- metallic (mostly iron) core & silicate mantle
	- translucent atmosphere ∴ crust is observable clearly
	- rings or satellites X
•	P3. Jovian
	- Jupiter, Saturn, Uranus, Neptune
	- massive rock & ice cores
	- heavy H & He atmospheres
	- rings & satellites

### 3. 기호 및 약어를 이용한다.

Note-taking을 할 때 지문에 언급된 모든 단어를 적는 것이 아니므로, 가능한 경우에는 약어와 기호를 이용한다. 본인이 쓴 내용을 못 알아보는 일이 없도록 지문에 자주 등장하는 표현 등의 기호와 약어는 완전히 익혀둔다.

#### ① 기호

기호를 쓸 때는 널리 통용되는 것을 사용하여 나중에 혼동하는 일이 없도록 한다.

=	equals, to be	∴	therefore, so
+	and, plus	∵	because
&	and	←	from
>	more than	→	become, result, change to
<	less than	@	at
↑	increase	#	number (of)
↓	decrease	/	per, each
~	approximately, about	X	not, no

#### ② 약어

약어를 만들 때 다양한 방법이 있는데, 일관되게 적용될 수 있는 방식을 사용하여 나중에 혼동하는 일이 발생하지 않는다. 약어를 만드는 기본적인 방법은 다음과 같다.

• 뒷부분 생략: regular → reg.    • 모음 생략: movement → mvmt    • 중간 철자 생략: government → gov't

b.f.	before	intro.	introduction
bldg	building	imprt.	important
c.	century	max.	maximum
cf.	compare	min.	minimum
ea.	each	ppl.	people
edu.	education	prob.	problem
e.g.	for example	rsn	reason
env't	environment	sum.	summary
etc.	and so on	tech.	technology
fr.	from	vs.	versus
i.e.	that is, in other words	w/	with
info.	information	w/o	without



### 지문

The Puritans from Europe, mostly England, came to America in the 17<sup>th</sup> century in search of religious freedom and to avoid the prosecution they were experiencing across the continent. Influenced by the teachings of John Calvin, these people had given up attempts to reform the Church of England and laid their sights on turning America into a land of prosperous Puritan faith. The first Puritan colony, the Plymouth Colony, set a precedent for the coming of two more major waves of immigrants in 1630 (Massachusetts Bay Colony) and 1645 (Virginia). The population grew steadily as more and more immigrants formed individual colonies, resulting in a substantial increase from the 17,800 Puritans in America in 1640, to the 106,000 in 1700.

When the first Puritans left their native lands for opportunity in the far West, they envisioned that America would be a place where they could establish their communities with little or no resistance and spread their religious beliefs to other Christians. They envisaged communitarian societies in which all property was communally owned. Leaders of the Massachusetts Bay Colony perpetuated the westward movement of Puritan settlements in order to ensure the spread of their way of life. Although each of the communities differed slightly in their interpretation of the Puritan way of life, they were held together by a belief that the Bible was literal instruction about how to properly live. Members of their communities thus set out to make America the best example of a Puritan nation.

However, the reality of early American Puritan life did not match up with ideals. The communities found considerable difficulties dealing with the combination of typical frontier life, plagued by physical and economic hardship, and maintaining their exclusive and rigidly structured society. Puritan belief in a strict adherence to Biblical instruction meant that any kind of deviance from a strictly devout lifestyle was punishable. People were to abstain from such activities as laughing, gambling, singing, and any other kind of enjoyable endeavor. To keep such high standards of moral behavior, the Puritans had to isolate themselves from the rest of the society. Even more, the limited financial opportunities led many Puritan followers to leave in search of economic betterment, a pursuit that went against the order's traditions and caused dramatic dispersals that made it increasingly difficult to uphold necessary church life and discipline.

By the early 18<sup>th</sup> century, the Puritan lifestyle began to be held in poor favor on American soil, mostly due to a restructuring of the political system. Before then, a large percentage of the governmental positions, especially the Parliament, was held by those of Puritan denomination. The American political structure, however, started to adopt a less religiously-affiliated system that allowed for freer elections and a higher level of political professionalism. As a result, many of the Puritan leaders who were able to get into parliament based on their religious strongholds were not elected for further terms. Although the Puritan beliefs influenced and propelled the formation of the American society, its communities were almost obsolete by the beginning of the 1900s.

위 지문은 미국으로 이주해 온 청교도에 관한 내용으로 도입부인 1단락에 청교도가 박해를 피하고 종교적 자유를 찾아 유럽에서 미국으로 건너왔다는 글의 주제가 나와 있다. 그 아래 3개 단락에 걸쳐 초기 청교도의 이상 및 이상과 현실과의 괴리, 청교도 생활 양식의 쇠퇴와 같은 주제와 관련된 글의 중심 정보가 설명되어 있다.



## Possible Notes

•	P1. The Puritans fr. Europe came to America in 17 <sup>th</sup> c. for religious freedom & to avoid prosecution	Main Topic
•	P2. The 1 <sup>st</sup> P envisioned America as place to establish communities & spread religious beliefs	중심 정보 1
•	– envisaged communitarian s.c.t	
•	– perpetuated W mvmt of P settlement	
•	– the Bible = literal instruction	
•	P3. Reality ≠ ideals	중심 정보 2
•	– difficulties	
•	e.g. frontier life, physical + econo. hardship	
•	maintain exclusive & rigidly structured s.c.t	
•	– deviance fr. devout lifestyle → punishable	
•	– isolated fr. the rest of the s.c.t	
•	– left for econo. betterment ∴ dispersals	
•	P4. In early 18 <sup>th</sup> c. the P lifestyle was in poor favor	중심 정보 3
•	∴ restructuring of political system	
•	– ↓ religiously-affiliated political structure	
•	→ P leaders were not elected	
•	– almost obsolete in early 1900s	

앞 지문의 내용을 Note-taking한 예로, 단락별로 메모가 정리되어 있다. 1단락에 글의 주제가 적혀 있고 2, 3, 4 단락의 첫 줄에 단락별 중심 정보가 적혀 있으며 각 중심 정보 아래 세부 정보들이 약어와 기호를 사용하여 간략하게 정리되어 있다.

# Hackers TOEFL iBT Reading 특징

## 1

### IBT 실전 문제 최다수록

Diagnostic Test, Hackers Practice, Hackers Test, Actual Test, CD에 들어있는 지문과 문제를 통틀어 27회분 상당의 실전 문제가 수록되어 있으므로 이를 통해 실제 시험에 완벽하게 대비할 수 있다.

## 2

### 실제 시험과 가장 유사한 지문과 문제 구성

이 책에 실려있는 모든 지문은 실제 시험과 가장 유사한 내용들로 채워져 있으며, 이러한 지문들을 이용하여 제작된 문제 역시 실제 시험과 동일한 수준으로 구성되어 있다.

## 3

### IBT 출제 경향 완전 분석

IBT 리딩의 출제 경향을 철저히 분석하여 시험에 출제되는 지문과 모든 문제 유형이 제시되어 있어 학습에 큰 도움이 된다.

## 4

### 유형별 pattern에 따른 문제 접근

모든 문제 유형의 완전 분석을 통해 파악된 문제 유형별 pattern이 상세히 정리되어 있어 각 문제 유형에 충분히 익숙해지고 문제 접근을 쉽게 할 수 있다.

## 5

### 고득점을 위한 완벽한 전략 제시

각 문제 유형 해결을 위한 핵심 전략이 Hackers Strategy에 제시되고 이를 Hackers Practice 및 Hackers Test에 있는 문제들을 통해 실제 적용해 봄으로써 학습 효과를 극대화한다.

## 6

### 전분야의 지문 수록

실제 시험에 출제되는 광범위한 지문의 주제와 유사한 내용을 포함한 지문이 교재 전체에 수록되어 있어 토플 시험에 필요한 배경 지식을 충분히 쌓을 수 있다. 이러한 다양한 분야의 지문을 총체적으로 이해할 수 있도록 정독을 통해 독해력을 향상시키도록 한다.

## 7

### 단계별 학습을 통해 기본부터 실전까지 완벽 대비

각 chapter 별로 Hackers Practice에서는 Hackers Strategy에 제시된 전략을 단계적으로 연습해보고 실전 길이의 지문으로 이루어져 있는 Hackers Test에서는 이를 심화 학습한다. 마무리 학습으로 실제 시험 난이도와 문제 유형으로 구성된 Actual Test를 통해 실전에 완벽하게 대비한다.

## 8

### 효과적 학습 플랜 제시

이 책의 학습 플랜은 학습 속도와 구성에 따라 네 가지로 나뉘어 있다. TOEFL Reading에 익숙하지 않아 체계적이고 꼼꼼히 학습하기를 원하는 학습자는 6주 완성 계획표(순차적, 혼합형)를, 시험을 앞두고 단기간 내에 준비를 마치려는 학습자는 4주 완성 계획표(순차적, 혼합형)에 맞추어 Diagnostic Test부터 Actual Test까지 매일 일정 부분을 꾸준히 공부하는 것이 효과적이다.

## 9

### iBT 실전 CD 제공

실제 iBT 리딩에 등장하는 3 지문 set과 5 지문 set의 두 유형을 각각 테스트 해 볼 수 있는 실전 CD는 실전과 유사한 내용과 난이도, 시험 진행 방식을 갖추고 있어서 실제 시험을 보기 전에 학습자의 실력을 점검해 볼 수 있도록 하며, 컴퓨터로 시험을 치르게 되는 실제 시험 환경에도 익숙해질 수 있도록 한다.

## 10

### www.goHackers.com을 통한 자료이용 및 상호 피드백

해커스 홈페이지(www.goHackers.com)를 통하여 학습자들이 책 내용에 관해 서로 토론할 수 있으며, iBT에 대한 다양하고 방대한 정보를 얻을 수 있다.

# Hackers TOEFL iBT Reading 구성

## 1 Diagnostic Test

iBT 리딩의 전반적 유형 및 난이도를 체험하고 본격적인 교재 학습에 앞서 학습자의 현재 실력을 측정해 보고 앞으로의 학습 계획을 세울 수 있도록 실제 시험의 구성과 경향을 그대로 반영한 문제가 제공된다.

## 2 Overview

각 문제 유형에 대한 기본적인 소개가 되어 있으며 문제를 제대로 해결하기 위해 평소에 해두면 좋은 학습 방법과 지문당 출제 비율이 제시되어 있다.

## 3 Types of Questions

문제 유형별로 실제 시험에 자주 쓰이는 질문 형태가 정리되어 있어 시험을 볼 때 어떤 문제 유형인지 금방 알아볼 수 있다.

## 4 Hackers Strategy

단계적 과정을 거쳐 문제 해결을 할 수 있도록 각 문제 유형별로 핵심 전략들이 step별로 제시되어 있으며 각 step 아래에는 이해하기 쉽도록 example이 들어 있다.

## 5 Hackers Strategy Application

Hackers Strategy에 제시된 문제 유형별 핵심 전략이 실제 문제 풀이에 어떤 방식으로 적용(application) 되는지를 보여주는 풀이 과정이 제시된다.



## 6 Hackers Practice

각 문제 유형을 다각적으로 연습할 수 있도록 다양한 형태의 practice 문제가 출제된다. 단계별로 한 가지 문제 유형에 대해 집중 학습함으로써 학습자들이 자연스럽게 문제 유형에 익숙해질 수 있다.

## 7 Vocabulary

Hackers Practice에 수록된 지문에 나오는 어휘들 중 토플 기출 어휘를 중심으로 이들의 동의어를 고르는 문제가 Practice 페이지 하단에 출제된다. 어휘력이 독해에 중요한 요소이므로 지문에 사용되는 특정 어휘가 문맥에서 어떤 의미로 사용되었는지 제대로 이해하고 있는가를 측정한다.

## 8 Hackers Test

Strategy와 Practice를 통해 문제 유형을 익힌 후, 실전 난이도의 지문을 이용해 출제되는 문제를 풀어봄으로써 실전 감각을 익힌다. Hackers Test에는 이전 chapter에서 학습한 문제 유형이 누적되어 출제되므로 다양한 문제 유형을 복합적으로 공부할 수 있다.

## 9 Actual Test (책 + CD)

책의 모든 과정을 학습한 후 마무리로 실전 난이도의 지문과 문제로 구성된 Actual Test를 풀어 실력을 점검하고 교재 학습 이전과 비교하여 향상 정도를 측정해본다.

## 10 Translation

교재에 수록된 모든 지문의 해석이 정답과 함께 제공된다. 학습자가 지문의 내용을 얼마나 정확히 이해했는지를 확인해 볼 수 있다.



# Hackers TOEFL iBT Reading 학습 방법

p.34의 Diagnostic Test 결과에 따라, 본인의 점수대에 맞는 학습방법을 찾아 학습하시면 효과적입니다.

## Level 1. Diagnostic Test 0-21 점대 (실제 시험 예상 점수: 0-14점대)

당신의 iBT 리딩 실력은 '하' 단계입니다. 기본적인 독해력 향상에 중점을 두어야 할 때로 글을 읽고 나서 글의 주제와 중심 정보를 파악하는 훈련부터 해야 합니다. 한 두 단락 정도로 이루어져 있는 교재의 Hackers Practice를 풀고 나서 각 지문의 주제와 중심 정보를 꼭 확인하고 넘어가야 합니다. 또한 독해력 향상을 위한 기본적인 문법 익히기와 함께 꾸준히 어휘 실력을 쌓도록 노력해야 합니다. Hackers Vocabulary를 적극 활용하여 어휘력을 향상시키는 것이 좋습니다.

## Level 2. Diagnostic Test 22-31 점대 (실제 시험 예상 점수: 15-21점대)

당신의 iBT 리딩 실력은 '중하' 단계입니다. 글의 주제 찾기 외에도 글의 세부적인 정보를 확인하는데 주력해야 합니다. Note-taking을 하며 중심 정보와 세부 정보를 구분하여 정리하는 연습이 필요합니다. 교재의 Hackers Strategy와 Hackers Practice를 풀며 각 문제 유형을 익히는데 중점을 두어 학습하는 것이 좋습니다. 꾸준히 단어를 암기하는 것 외에, 지문에 모르는 단어가 나왔을 경우 문맥을 이용해 단어의 뜻을 유추해 내는 연습이 필요할 때입니다.

## Level 3. Diagnostic Test 32-38 점대 (실제 시험 예상 점수: 22-27점대)

당신의 iBT 리딩 실력은 '중상' 단계입니다. 글의 주제와 단락 간의 유기적 관계 파악이 가능한 단계이므로 좀더 어려운 난이도의 글을 많이 접하면서 빠른 독해를 연습해 볼 만합니다. 향상된 어휘력을 바탕으로 Hackers Practice와 Hackers Test의 지문에 쓰인 표현을 paraphrase하는 연습을 하면 문제 풀이에 많은 도움이 될 것입니다. 모든 문제 유형을 숙달하고 특히 난이도가 높은 Summary 문제와 Category Chart 문제에 대비하여 지문의 전체 내용을 요약하는 연습과 정보를 구체적인 기준에 따라 분류, 정리하는 연습을 해보시기 바랍니다.

## Level 4. Diagnostic Test 39-43 점대 (실제 시험 예상 점수: 28-30점대)

당신의 iBT 리딩 실력은 '상' 단계입니다. 이미 상당한 독해 실력을 갖추고 있지만, 만점을 맞기 위해서는 보다 적극적이고 능동적인 학습을 할 필요가 있습니다. 단어 하나의 쓰임과 예시 하나에도 작가의 의도가 있다는 것을 염두에 두어 글을 읽고, 글을 읽은 후에는 이해하는 것에 그칠 것이 아니라 읽은 내용을 바탕으로 결론을 도출해보는 연습을 해보시기 바랍니다. Hackers Practice에서는 틀린 문제만 다시 확인하고 넘어가고 Hackers Test에 중점을 두어 학습하시는 것이 좋습니다.

본인의 상황에 맞는 학습 방법을 찾아 학습하시면 효과적입니다.

## 1. 스터디 학습

- ① 해커스 학습 플랜을 참고하여 매회의 스터디 분량을 팀원들과 미리 계획합니다.
- ② 예습을 통해, 각 문제 유형별 Hackers Strategy를 숙지하고 이를 Hackers Practice와 문제에 적용하면서 유형을 익힙니다. 문제를 풀 때는 항상 시간을 정해놓고 풀어야 하며, 문제를 풀고 난 후에는 지문을 분석하고 문제 보기의 내용 중 본인이 정답이나 오답으로 생각한 근거를 지문에서 찾아 스터디에서 팀원들과 토론할 수 있도록 합니다. 본인이 정독을 맡은 지문에 대해서는 배경지식을 준비하여 팀원들에게 설명해주는 것이 좋습니다.
- ③ 스터디 시간에는 Hackers Test에 중점을 두어 당일 스터디 분량의 지문 중 각자 준비해온 지문을 담당자가 강의하듯 정독합니다. 담당자가 잘못 이해한 부분은 지적하고 의견을 조율하여 지문을 정독합니다.
- ④ 지문 정독이 끝난 후 예습해 온 문제를 함께 토론 하면서 답을 수렴해 나갑니다. 이때 책의 정답은 확인하지 않고 서로의 답을 공개해 왜 그것을 답으로 선택하게 되었는지를 말하며 토론을 해야 합니다. 의견이 수렴되지 않는 문제의 경우에는 너무 많은 시간을 소비하지 말고 책의 정답을 통해 확인하도록 합니다.
- ⑤ 토론이 끝난 후 책의 정답 확인을 통해 스터디에서 나온 결과와 비교해봅니다.
- ⑥ 스터디 시간에 다룬 내용을 복습하고 스터디 논의를 통해서도 해결되지 않은 부분이나 이해가 가지 않는 부분은 [www.goHackers.com](http://www.goHackers.com)의 리딩 게시판을 이용하여 확인하도록 합니다.

## 2. 개별 학습

- ① 진단고사를 통하여 자신의 현재 실력을 확인하고, 해커스 학습 플랜을 참고하여 본인에게 맞는 학습 계획을 세웁니다.
- ② 매일매일 정해진 학습 분량을 공부합니다. 각 문제 유형별 Hackers Strategy를 숙지하고 이를 Hackers Practice와 Hackers Test 문제에 적용하면서 유형을 익힙니다.
- ③ 문제를 풀 때는 항상 시간을 정해놓고 푸는 것을 원칙으로 하며, 문제를 다 풀 후에는 지문 정독과 함께 본인이 선택한 정답과 오답 분석을 합니다.
- ④ 책의 정답과 자신이 고른 답을 비교해보고 이해가 되지 않는 부분은 [www.goHackers.com](http://www.goHackers.com)의 리딩 게시판을 이용하여 확인하도록 합니다.

# Hackers TOEFL iBT Reading 학습 플랜

## 6주 완성 계획표

### 1. 순차적 학습 플랜

1st week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Diagnostic Test	Ch1 HS, HP1	Ch1 HP2-3	Ch1 HT1-2	Ch1 HT3-4	Ch2 HS, HP1-2	Review
2nd week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch2 HP3, HT1	Ch2 HT2-4	Ch3 HS, HP1-2	Ch3 HP3, HT1	Ch3 HT2-4	Ch4 HS, HP1-2	Review
3rd week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch4 HP3, HT1	Ch4 HT2-4	Ch4 HS, HP1-2	Ch5 HP3, HT1	Ch5 HT2-4	Ch6 HS, HP1	Review
4th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch6 HP2-3	Ch6 HT1-2	Ch6 HT3-4	Ch7 HS, HP1-2	Ch7 HP3, HT1	Ch7 HT2-4	Review
5th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch8 HS, HP1	Ch8 HP2-3	Ch8 HT1-2	Ch8 HT3-4	Ch9 HS, HP1	Ch9 HP2-3	Review
6th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch9 HT1-2	Ch9 HT3-4	Actual Test I	Actual Test II	실전 CD Test I	실전 CD Test II	Review

\* HS: Hackers Strategy (각 chapter의 앞부분) / HP: Hackers Practice (각 chapter는 3단계의 practice로 이루어져 있음)  
HT: Hackers Test (각 chapter에는 4개의 test가 있음) / Review: 해당 주의 학습내용을 복습

## 2. 혼합형 학습 플랜

1st week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Diagnostic Test	Ch1 HS, HP1	Ch1 HP2-3	Ch8 HS, HP1	Ch8 HP2-3	Ch1 HT1-2	Review
2nd week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch1 HT3-4	Ch2 HS, HP1-2	Ch2 HP3, HT1-2	Ch2 HT3-4	Ch9 HS, HP1	Ch9 HP2-3	Review
3rd week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch3 HS, HP1-3	Ch5 HS, HP1-2	Ch5 HP3, HT1-2	Ch3 HT1-2	Ch3 HT3-4	Ch5 HT3-4	Review
4th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch4 HS, HP1-3	Ch6 HS, HP1	Ch6 HP2-3	Ch4 HT1-2	Ch4 HT3-4	Ch6 HT1-2	Review
5th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch6 HT3-4	Ch7 HS, HP1-2	Ch7 HP3, HT1-2	Ch7 HT3-4	Ch8 HT1-2	Ch8 HT3-4	Review
6th week	Day	1st	2nd	3rd	4th	5th	6th	7th
Progress		Ch9 HT1-2	Ch9 HT3-4	Actual Test I	Actual Test II	실전 CD Test I	실전 CD Test II	Review



## 4주 완성 계획표

### 1. 순차적 학습 플랜

1st week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Diagnostic Test	Ch1 HS, HP	Ch1 HT	Ch2 HS, HP	Ch2 HT	Ch3 HS, HP	Review
2nd week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch3 HT	Ch4 HS, HP	Ch4 HT	Ch5 HS, HP	Ch5 HT	Ch6 HS, HP	Review
3rd week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch6 HT	Ch7 HS, HP	Ch7 HT	Ch8 HS, HP1-2	Ch8 HP3, HT1	Ch8 HT2-4	Review
4th week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch9 HS, HP1-2	Ch9 HP3, HT1	Ch9 HT2-4	Actual Test I	Actual Test II	실전 CD	Review

## 2. 혼합형 학습 플랜

1st week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Diagnostic Test	Ch1 HS, HP	Ch8 HS, HP1	Ch8 HP2-3	Ch1 HT	Ch2 HS,HP	Review

2nd week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch9 HS,HP1	Ch9 HP2-3	Ch2 HT	Ch3 HS, HP	Ch5 HS, HP	Ch3 HT	Review

3rd week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch5 HT	Ch4 HS, HP	Ch4 HT	Ch6 HS, HP	Ch6 HT	Ch7 HS, HP	Review

4th week	Day	1st	2nd	3rd	4th	5th	6th	7th
	Progress	Ch7 HT	Ch8 HT	Ch9 HT	Actual Test I	Actual Test II	실전 CD	Review



Hackers TOEFL Reading

# DIAGNOSTIC TEST

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## [1] Bluegills

- 1 Anglers will recognize the bluegill as one of the most popular gaming fish in North America and it is frequently found in freshwater lakes and ponds. This relatively small fish which rarely reaches length over 6-9 inches (15-23 cm) has also been the subject of intense study by many wildlife biologists for its unusual mating habits. While similar to other fish in that the male cares for the offspring, the alpha males which are larger than the females and other males can never be sure that it is truly their own fry which they are raising since there are others which try to circumvent the mating rituals and fertilize the eggs by deception.
- 2 ➡ Comprising roughly 80% of the breeding population, large parental males, distinguished by their size, copper colored bars across the top of their heads behind the eyes, and silvery blue breasts that may turn yellow or orange during the spawning season, commonly manage bluegill reproduction. They do not reach sexual maturity until their third or fourth year and this delay allows them to direct their consumed food resources to developing a large body mass, which is advantageous for successfully defending their territory and fighting off predators. Because these fish are colony spawners, adult parental males will excavate plate-sized nests in groups of 20 or 30, called 'beddings,' by sweeping their tail fins across the sandy floor to make depressions. Then, in the shallow water, the male circles the nest and makes grunting noises to attract one or more females. The male guards the newly deposited and fertilized eggs and continues to do so even after the hatch and the emergence of the fry until they are old enough to survive on their own.
- 3 ➡ A small proportion – about 20% – of bluegill males do not wait until they are large enough to defend territory before entering the reproductive process. Cuckolds, or sneakers, divert most of their energy towards their gonads that produce milt, a secretion from their testes containing spermatozoa; as a result, they have invested in a procreative strategy requiring them to take advantage of nearby nests. Cuckolds are too meek to successfully attract a female fish on their own. They seek out a large parental male, hide in the weeds adjacent to the parental male's breeding grounds, and wait for a school of female fish to pass over. Once a female chooses a partner, she will tilt her body and release roughly 30 eggs in a motion referred to as a 'dip.' Normally, the resident parental male would shower these eggs with his own milt, but before he has a chance to reach all of them, the diminutive cuckold will leave his safety zone and dart into the dangerous nest area to squirt his own milt toward the eggs, quickly returning to his point of origin without being caught. With this tactic, he hopes to fertilize as many of the eggs as possible before they settle into the hole, and will use his undersized body to advance with utmost agility. If fortunate enough to complete the task without encountering any significant harm, the cuckold will go on to stalk other parental male nests over the same season.
- 4 ➡ ■ The rapid dashing technique is limited to only two seasons since his physical maturation, while delayed, cannot be halted resulting in a larger body with less agility and so as to increase the likelihood of passing his genes onto the next generation, he develops a new method of mimicry to achieve his goal. ■ An adult cuckold bluegill is still not as beefy as a parental male and can easily be mistaken for a female of the species. ■ As he ages, the cuckold will acquire similar markings, which completely disguise him from parental males and allow him to easily slip into schools of female fish unnoticed. ■ In this fashion, he will travel around the warm waters until a nearby female decides to spurt her eggs downward toward an established nest. The cuckold

swoops down, maneuvers fairly close to the fallen eggs, and ejects his milt. If a good selection is fertilized with cuckold spermatozoa, then the fish has accomplished his reproductive duties.

1. The word *their* in the passage refers to
  - (A) anglers
  - (B) biologists
  - (C) alpha males
  - (D) females
2. The word *deception* in the passage is closest in meaning to
  - (A) jeopardy
  - (B) acquisition
  - (C) velocity
  - (D) trickery
3. It can be inferred from the passage that the colors of parental males
  - (A) help to attract females to their nests
  - (B) are identical to the female's coloration
  - (C) often differ depending upon the season
  - (D) assist with the procurement of food
4. The word *excavate* in the passage is closest in meaning to
  - (A) protect
  - (B) dig
  - (C) circle
  - (D) share
5. In paragraph 2, the author mentions grunting noises in order to
  - (A) emphasize the effort required to create the depressions
  - (B) describe a nursery song which parental males sing for their fry
  - (C) give an example of measures to shield the nest from predators
  - (D) show a way in which parental males draw the opposite sex

Paragraph 2 is marked with an arrow [➡].

6. Which of the following is true of spawning in paragraph 2?
  - (A) The largest males are the ones which are most attractive to the females.
  - (B) Males arrange nests in advance before they lure females into their nests.
  - (C) Females show no preference when choosing a place to lay their eggs.
  - (D) The ability of the male to circle the nest shows its fitness in raising fry.

Paragraph 2 is marked with an arrow [➡].

7. The word nearby in the passage is closest in meaning to

- (A) manifold
- (B) touching
- (C) neighboring
- (D) dorsal

8. In paragraph 3, the author implies that cuckolds

- (A) begin attempting to fertilize eggs at a younger age than parental males
- (B) first try to build a nest before trying to sneak into others
- (C) are limited to a single strategy during their entire lifetime
- (D) have much more effective means to entice females than parental males

Paragraph 3 is marked with an arrow [➡].

9. The word agility in the passage is closest in meaning to

- (A) nimbleness
- (B) carelessness
- (C) maturity
- (D) multiplicity

10. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) The cuckold causes damage to the nests of the parental males he pursues during the mating season.
- (B) The cuckold after being successful will continue to stalk the same nest over many seasons.
- (C) The cuckold will attempt to employ the same strategy at other sites if successful at one location.
- (D) The cuckold is very fortunate if it is able to accomplish one task before succumbing to injury.

11. According to paragraph 4, which of the following is true of cuckolds?

- (A) They eventually grow large enough to allure females on their own.
- (B) They are always unsuccessful due to their increasing size and decreasing speed.
- (C) They have to travel further to pass down their genes from generation to generation.
- (D) They must alter the method by which they sneak into the parental male's nest.

Paragraph 4 is marked with an arrow [➡].



12. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Usually, females have lighter colored scales, a prominent black spot on the hind edges of their gill covers, and a second dark spot at the base of the rear section of their dorsal fins.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

13. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Bluegill males are not homogeneous but can be categorized by their mating strategies.**

- 
- 
-

Answer Choices

- |   |  |
|---|--|
| (A) Female bluegills make a series of dips into the nests of the parental males.                                | (D) Parental males use their matured body to defend a nest for mating and protecting their offspring.              |
| (B) A small segment of the population reproduces by sneaking up on the nest of the other type of Bluegill male. | (E) Parental males are not certain that the eggs and hatchlings they secure are their own because of the cuckolds. |
| (C) The swift dashing technique is not as successful as the mimicking later employed by the sneakers.           | (F) Males moving on the sneak adapt to look like the females of the species as they age.                           |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.



## [2] The Mediums of Egyptian Art

- 1 ➡ Egyptian artists during ancient times worked and experimented with a variety of mediums. A great number of the statues and buildings produced in ancient Egypt were made of stone, wood, or metal. The most common was limestone, which was found in ample supply on the cliffs of the Nile Valley. Limestone, a soft stone, was carved into blocks for the construction of temples and tombs. Paint was usually applied to this stone as decoration. The Egyptians also used harder stones in the construction of temples and statues but left the stone its original color for symbolic effect. Black stones, based on the black silt left after the Nile River flooded each year, were representative of new life and resurrection. Stones of the colors red, orange, and yellow were closely linked to the Sun while green stones were indicative of growth.
- 2 ➡ One rectangular block of stone was normally used to produce a statue. A sense of strength and power was produced by having the stone between the arms and the body, in addition to the legs of standing or seated figures, uncut. In order to enhance this effect, the statue was often placed in front of a pillar or column. Almost all of the statues during this time were displayed with the face and the body looking forward. Referred to as frontality, this was a practice that endured over thousands of years with almost no change. These statues were not primarily created for artistic purposes, but for the rituals of gods, kings, and the deceased. Therefore, the statues were shown facing straight ahead, allowing people who visited them to get a sense of connection. Additionally, they were placed in rectangular shrines or wall niches, leaving frontality as a pragmatic display method.
- 3 Though wood was scarce in ancient Egypt, Egyptian artists were quite adept at using this particular medium. Although much of the wood was imported from Syria, artisans of the time were also accomplished at using the wood of their native land, which was often gnarled and irregular. They would first shape the wood with a chisel and then smooth down the surface by rubbing it with stones. Paint would be added after plastering the surface, although this step was often skipped with high quality wood. It was used to build a number of skilled pieces such as furniture, chests, coffins, and even statues. Different pieces of wood were carved and put together when making wooden statues.
- 4 ➡ Egyptians worked with different types of metals to produce statues, tools, jewelry, and equipment. Metal statues were produced in one of two methods. A sheet of metal was wrapped around a wooden core or the lost wax process was used. This was a process of changing a sculpture made of clay into a harder material such as metal by making two molds, one of wax and one of ceramic material. The ceramic mold was used to melt out the previous wax molding, thus the wax becoming "lost" as it disappears. Unlike their wooden counterparts, the arms on metal statues were frequently held away from the body so that items could be placed on each hand.
- 5 ■ Gold and silver were used for making cult statues during the time, with precious stones regularly embedded for decorative purposes. ■ The Egyptian people believed gold to be the flesh of the gods, specifically the sun God Re who was considered to be the most important of the gods, while the bones were composed of silver. ■ In addition, a lunar disk that could sometimes be found on a statue was made of silver because of its association with the moon. ■

- 6 ➡ Another metallic substance called faience, also known as glazed composition, was commonly used by the Egyptians. Made of quartz with a glazed surface and often used as an alternative to stone, faience was employed in the production of many small objects like rings, bracelets, and ear studs due to its ability to be shaped and its wide availability. The properties of faience were also similar to those of stone, making it a natural substitute. A variety of glaze colors could be produced depending on additions to the basic mixture but the most commonly used color was turquoise.

1. The word ample in the passage is closest in meaning to
  - (A) scant
  - (B) compact
  - (C) plentiful
  - (D) assorted
2. According to paragraph 1, which of the following is true of limestone in the construction?
  - (A) Its color usually had great meaning to Egyptian artists.
  - (B) It was not durable enough to be used in the building of temples.
  - (C) Pigment was often added to it for ornamentation purposes.
  - (D) It was sporadically used as a construction material by the Egyptians.

Paragraph 1 is marked with an arrow [➡].

3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Black stone was indicative of the various types of life found on the Nile River.
  - (B) Black stone from the Nile River was symbolic of the revitalization.
  - (C) The Egyptians believed that black silt from the Nile River could resurrect life.
  - (D) The sediment that resulted from the flooding of the Nile River is black stone.
4. The phrase this effect in the passage refers to
  - (A) one rectangular block of stone
  - (B) a sense of strength and power
  - (C) the stone between the arms and body
  - (D) the legs of standing or seated figures
5. According to paragraph 2, frontality was used because
  - (A) it was a tradition passed down for generations
  - (B) the viewer could feel bond with the statue
  - (C) space was restricted in many shrines and tombs
  - (D) it strengthened the statue's solemn image

Paragraph 2 is marked with an arrow [➡].

6. The word **pragmatic** in the passage is closest in meaning to
- (A) sensible
  - (B) uniform
  - (C) elegant
  - (D) somber
7. The word **adept** in the passage is closest in meaning to
- (A) perceptive
  - (B) incompetent
  - (C) resilient
  - (D) skilled
8. All of the following are true about the use of wood in ancient Egypt EXCEPT
- (A) the wood found in Egypt was of a higher quality than Syrian wood
  - (B) coloring was frequently missed out with excellent wood
  - (C) the Egyptians were proficient in handling wooden pieces
  - (D) wood was not readily available during the times
9. What is mentioned as part of the lost wax process in paragraph 4?
- (A) Metal is transformed into clay with the use of two moldings.
  - (B) A wooden center is surrounded by a metal sheet.
  - (C) A ceramic mold is created before the wax mold.
  - (D) The heat from the ceramic mold causes the wax to dissipate.

Paragraph 4 is marked with an arrow [➡].

10. Which of the following can be inferred about wooden statues from the passage?
- (A) They conveyed an aura of strength and power.
  - (B) They were considered more valuable than other types of statues.
  - (C) They were quite intricate and elaborate in detail.
  - (D) They were not used for holding items.
11. According to the paragraph 6, why was faience routinely utilized by Egyptian artisans?
- (A) Its luster was suited for making precious jewelry.
  - (B) It was believed to have an important association with the gods.
  - (C) It was easily obtained and molded to make items.
  - (D) Its natural color was popular in Egyptian society.

Paragraph 6 is marked with an arrow [➡].



12. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**They were utilized not only for their monetary value and rarity, but also because of the symbolism attached to each of these metals.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

13. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

***This question is worth 2 points.***

**This passage discusses the various mediums that the ancient Egyptians used to make statues and other art pieces.**

Answer Choices

- |   |   |
|---|---|
| (A) Jewelry made from faience came in numerous colors, the standard being turquoise.  | (D) Many of the statues built in ancient Egypt depicted deities, kings, and other elite members of society. |
| (B) The color of stones and the use of frontality added significance to stone buildings and statues.                        | (E) Despite limited availability, artists worked with wood to craft expert pieces.                          |
| (C) The Egyptians considered order a fundamental principle to their society, and this was clearly applied to their artwork. | (F) Metallic materials were highly prized in the production of statues for their symbolic value.            |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.



### [3] Incan and Mayan Civilizations

- 1 The arrival of the Spanish conquistadors in the New World permanently and drastically reshaped the culture and the lives of the indigenous populations, leading to the disappearance of two of the greatest civilizations in the Americas, the Inca and the Maya, shortly after the Europeans discovered them. They left remarkable cities, with few records about the vanished inhabitants, forcing archaeologists to try to piece together what remains in an attempt to learn more about these lost civilizations.
- 2 ➡ The majority of the information that has been collected came from the ruins of their cities, which have withstood the passage of time since they worked primarily with stone. Yet, while both used the same material, they integrated their cities very differently into the surrounding environment. For the Inca, their skill enabled them to accomplish this almost seamlessly by sculpting nearby objects and incorporating terraces into their cities for use as farms or gardens. In comparison, Mayan urban planning appears almost haphazard. While lacking the extensive road system and organized layout of the Incans, Mayan cities tended to grow more organically from a central plaza that contained the most important buildings, such as the royal palaces, temples, and ball-courts, and since they had developed a mortar from crushed limestone, they didn't need to spend the same amount of time hewing stones that would perfectly complement each other.
- 3 ➡ This loose confederation of buildings was somewhat indicative of Mayan governance. Each city, with its surrounding area, was headed by its own supreme hereditary ruler who was the focal point, and as a result, the Mayan empire wasn't a unified nation, but was comprised of disparate city-states that were bound by a similar culture. The Incas, however, had one ruler, known as the Sapa Inca, or, unique Inca, who had to be the direct descendant of the original Inca tribe and had absolute power over the entire region, which was broken up into four regions, with each controlled by a governor who in turn oversaw local officials. The hierarchical provinces were also unique in that there were separate chains of command for the religious and military branches of government that effectively acted as a system of checks and balances. The Sapa Inca was able to exert his influence over the region, since there was a highly-developed road network that enabled messengers swift passage to the far-flung reaches of the kingdom.
- 4 Despite not having this courier network, the Maya had one immeasurable advantage, which many researchers believe to be the reason why the Mayan Empire lasted for over a thousand years, whereas the Incas lasted for less than two hundred. The Mayans had developed a formal writing system, which, while often compared to Egyptian hieroglyphics, was more phonetically based and enabled them to transmit and store vast amounts of information. ■ While over 1,000 different glyphs have been discovered, it seems that no more than 500 were used at any one time and that 200 of those had a phonetic interpretation, as opposed to the others which were logographic. ■ While much of the language that has been reconstructed has come from works inscribed in stone or pottery, the Mayans also were known to use the bark of trees to form codices, called primitive books, which unfortunately all were nearly destroyed by Spanish priests. ■ There has been some recent work by linguists who claim that the Incan quipus, strings of colored knotted cords, could have been used to convey messages, but this view is not widely accepted since all evidence seems to suggest that messengers were used to relay all of the information, and proponents have yet to develop any means to translate them. ■

- 5 In spite of their similar locations and overlapping time frames, the Mayans and Incans established vastly different cultures, both of which were marked by some of the most spectacular buildings in pre-Columbian America. Unfortunately, their destruction at the hands of the Spanish resulted in the loss of more than just their relics, but the loss of two great civilizations.

1. The word **withstood** in the passage is closest in meaning to
  - (A) forged
  - (B) deepened
  - (C) resisted
  - (D) appraised
2. According to paragraph 2, the reason parts of the Incan and Mayan cities survived was
  - (A) the preservation work done by modern archaeologists
  - (B) a high degree of skill with which the structures were built
  - (C) their impressive level of integration with their surroundings
  - (D) the durability of the material which they were constructed from

Paragraph 2 is marked with an arrow [➡].

3. The word **haphazard** in the passage is closest in meaning to
  - (A) valorous
  - (B) unplanned
  - (C) simplistic
  - (D) makeshift
4. Which of the following can be inferred about the building practices of the Incans in paragraph 2?
  - (A) They carved stone blocks that would match each other.
  - (B) They were more concerned with the function than the appearance.
  - (C) They showed a great deal of variety from city to city.
  - (D) They only worked with material that was locally available.

Paragraph 2 is marked with an arrow [➡].

5. What does the author mean by **This loose confederation of buildings was somewhat indicative of Mayan governance** in paragraph 3?
  - (A) The permanence of the structures was also reflected in the society.
  - (B) The manner Mayans governed affected the style in the building construction.
  - (C) The Mayan government played a significant role in the construction of buildings.
  - (D) The manner of building planning was similar to the organization of the government.

Paragraph 3 is marked with an arrow [➡].

6. The word *disparate* in the passage is closest in meaning to
- (A) united
  - (B) different
  - (C) intimate
  - (D) compatible
7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) In an effort to tighten his reign, the Incan King devised a complicated system of roads to allow quick travel.
  - (B) Because of the road system by which messages could traverse the realm, the Incan King could maintain control.
  - (C) The Incan King created the advanced collection of roads to assure that couriers could travel throughout the domain.
  - (D) Messengers that utilized the road network could carry the commands of the Incan King to a distance.
8. It can be inferred from the passage that a writing system
- (A) usually develops from a pictorial based system
  - (B) needs to be phonetically based to be effective
  - (C) is essential to establish a government system
  - (D) helps to ensure the long-term stability of a culture
9. Which of the following is NOT mentioned as a medium used for writing by the Mayans?
- (A) Outer layers of trees
  - (B) Pieces of dried clay
  - (C) Sections of rope
  - (D) Fragments of stone
10. The word *immeasurable* in the passage is closest in meaning to
- (A) pathetic
  - (B) apprehensive
  - (C) vast
  - (D) timid



11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Current research has been using computers to analyze the knots to search for patterns.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: Select the appropriate phrases from the answer choices and match them to the type of civilization they represent. ***This question is worth 4 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	The Incan
(A) Went through several internal wars over the right of succession	●
(B) Created towns that began to spread from the central square	●
(C) Devised an advanced system of thoroughfares on all sides	●
(D) Had an autocratic monarch who held absolute authority over the country	●
(E) Created a concrete like material from pulverized rocks which is put between bricks	●
	The Mayan
(F) Existed for less than two centuries	●
(G) Had a complex system of transmitting information using symbols	●
(H) Could fend off the Spanish conquerors for the first few centuries	●
(I) Made offsets in the hills for the purpose of cultivating the soil	●

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\*채점 후 p.26을 보고 본인의 맞은 개수에 해당하는 학습방법을 참고하세요.

\*진단고사 무료 해설 강의가 [www.ChampStudy.com](http://www.ChampStudy.com)에서 제공됩니다.



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# **PART 01** | **Identifying Details**

Chapter 1. Sentence Simplification

Chapter 2. Fact & Negative Fact

Chapter 3. Vocabulary

Chapter 4. Reference

# CHAPTER 01 | Sentence Simplification

## Overview

Sentence Simplification 문제는 하나의 문장(sentence)을 가장 잘 simplify한 것을 선택하는 유형이다. 여기서 simplification이란 한 문장에서 부가적인 정보는 빼고 핵심 정보만을 뽑아 간결하게 바꾸어 쓰기(paraphrase) 한 것을 말한다.

따라서 Sentence Simplification 문제를 제대로 풀기 위해서는 주어진 문장의 핵심 정보가 무엇인지를 정확하게 파악하고 그 핵심 정보를 paraphrase하는 연습이 필요하다. Sentence Simplification 문제는 물론이고 토플 리딩 문제에 나오는 거의 모든 보기는 지문에 나온 표현을 그대로 쓰지 않고 바꾸어 쓰기 때문에 paraphrase를 정확하게 이해하고 연습해야 한다.

Sentence Simplification 문제는 iBT에 새롭게 등장한 문제 유형으로 보통 한 지문당 1개의 문제가 출제된다.

## Types of Questions

지문에 한 문장이 음영 처리되어 있으며, 선택지에는 4개의 문장이 보기로 주어진다.

Sentence Simplification 문제의 전형적인 질문 유형은 아래와 같다.

- Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* answer choices change the meaning in important ways or leave out essential information.

## 전략 1 음영 처리된 문장의 핵심 정보를 파악한다.

Sentence Simplification 문제를 풀기 위해서는 가장 먼저 지문에 주어진 음영 처리된 문장에서 핵심 정보만을 뽑아내야 한다.

### ● 부가 정보 제거한 후 핵심 정보 파악하기

한 문장의 핵심 정보는 수식을 위한 관계절, 동격, 예시와 같은 부가 정보를 제거하고 남는 부분에 해당된다.

Ex The underlying subject matter in early intricate shamanistic ceremonies, ① the ~~invocations for blessings~~, ② ~~which developed into theater~~, was the cycle of life, ③ ~~encompassing birth and death, sexual and emotional desires, physical needs, and material forces~~.

→ ①은 shamanistic ceremonies와 동격이므로 생략

②는 shamanistic ceremonies를 수식하는 관계절이므로 생략

③은 cycle of life에 해당하는 예시이므로 생략

단, 이런 예시의 경우 general 한 용어로 간략화하여 encompassing various aspects of it (=life)으로 바꿀 수 있음.

핵심 정보 문장

The underlying subject matter in early intricate shamanistic ceremonies was the cycle of life.

### ● 지시어가 가리키는 지시 대상 확인하기

음영 처리된 문장에 지시어가 있는 경우, 주변 문장을 읽어 지시어가 가리키는 것이 무엇인지 확인 후, 핵심 정보를 파악한다.

Ex Nematode's tolerance for temperature is remarkable. In hot springs, nematodes live at temperatures as high or higher than any other Metazoa. Although ① **they** have adapted mechanisms to survive extremities of climate, their activity is stimulated by the return of more moderate conditions, ② ~~such as periods after rain in desert soils or after a relatively warm interval in soils of polar regions~~.

→ ①의 지시어 they가 가리키는 대상은 앞 문장의 nematodes임을 알 수 있다.

②는 more moderate conditions에 해당하는 예시이므로 생략

핵심 정보 문장

Although nematodes have adapted mechanisms to survive extremities of climate, their activity is stimulated by the return of more moderate conditions.



## 전략 2 핵심 정보를 가장 잘 paraphrase한 보기를 고른다.

핵심 정보 문장이 파악되었으면 이제 주어진 4개의 보기 중에서 그 핵심 정보를 가장 잘 paraphrase 한 보기를 고른다. Paraphrase는 원문의 의미는 그대로 살리되 문장 구조를 바꾸거나 비슷한 단어나 구를 사용하여 '바꾸어 쓰기' 한 것을 말한다.

Ex	핵심 정보 문장	Paraphrase한 문장
	The <b>underlying subject matter</b> in <b>early intricate shamanistic ceremonies</b> was <b>the cycle of life</b> .	<b>Ancient shamanistic rituals dealt with life.</b>

→ Paraphrase한 문장에는 핵심 정보 문장의 주어가 동사로 바뀌었고, early intricate shamanistic ceremonies가 ancient shamanistic rituals로 바뀌어 쓰였으며, the cycle of life가 life로 축약 표현되어 있다.

### ●문장 구조 paraphrase

비슷한 의미를 갖지만 문장의 구조를 변화시키는 다른 연결어(접속사, 전치사)를 사용하거나, 원인/결과/진술 순서 역전 혹은 문장성분 간의 위치변화 등 문장의 앞뒤가 바뀌어 paraphrase 된다.

Ex	원문	Paraphrase한 문장
	It is unlikely that the amount of seaweed consumed in the west will ever be more than a fraction of that used by the Japanese, <b>although</b> there has been an upsurge of interest in seaweed as food.	<b>Despite</b> the increased interest in seaweed as diet in the west, the Japanese probably eat much more seaweed than Western people.

→ 연결어 although와 비슷한 의미를 가진 despite를 사용하여 원문의 의미는 그대로 전달하면서 문장구조가 바뀌어 표현되었다.

### ●단어나 구 paraphrase

원문에 쓰인 단어나 구와 유사한 의미의 단어나 구를 사용하여 paraphrase 된다. 이 과정에서 paraphrase 되는 단어나 구의 문장 성분 혹은 품사가 원문과 비교하여 바뀔 수 있다.

Ex	원문	Paraphrase한 문장
	Drying, smoking, and salting could preserve meat <b>for a short time</b> , but the <b>availability</b> of <b>fresh meat</b> was <b>very limited</b> .	There was <b>little chance to obtain unprocessed meat</b> although meat conserved by drying, smoking, and salting was <b>temporarily available</b> .

→ For a short time이 temporarily available로, availability가 to obtain으로, fresh meat이 unprocessed meat으로, very limited가 little chance로 바뀌어 쓰여 있다.

### 전략 3 보기 중 오답을 확인한다.

최종적으로 나머지 보기들을 검토하여 오답임을 확인한다. Sentence Simplification 문제의 오답은 주로 음영된 문장의 핵심 정보를 빠뜨렸거나 의미를 현저하게 바꾸어버린 경우에 해당된다.

Ex Acid rain contains such acidic compounds as sulfuric acid and nitric acid, which are produced by the combination of atmospheric water with oxides released when hydrocarbons are burned and is widely considered responsible for damaging organisms such as forests and aquatic life.

Q: Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* answer choices change the meaning in important ways or leave out essential information.

A: Acid rain includes an acidic mixture and is largely blamed for harming living things.  
(○)

→ 음영된 문장은 '산성비가 산성 화합물을 함유하고 있고 유기체 파괴를 초래하는 것으로 여겨진다'라는 의미를 담고 있고 정답 문장은 이를 제대로 paraphrase 하고 있다.

핵심 정보를 빠뜨린 오답

The harmful effects of acid rain are the result of acids generated by the blend of atmospheric water with oxides. (×)

이 보기 문장은 산성비가 유기체를 파괴한다는 음영된 문장의 핵심 정보를 빠뜨리고 있다.

원문의 의미를 현저하게 바꾸어 버린 오답

Sulfuric and nitric acid causes acid rain to combine water with oxides and to interfere with the areas where organisms prefer to live. (×)

이 보기 문장은 '황산과 질산이 산성비가 물과 산화물이 결합하도록 하여 유기체가 서식하는 지역을 해친다'는 내용을 담고 있어 원문의 의미를 현저히 바꾸어 버렸다.

## Hackers Strategy Application

The concept of natural, open space in architecture soon spread from residential houses to skyscrapers, commercial enterprises, bridges, and gas stations, among others, all displaying an inherent belief that the essential focus of the structure should be derived from its purpose, implying artistic expression is tantamount to communication of meaning and quality. Wright argued that a bank should look like a bank, not a Greek temple, and thus the design and construction materials should be relative to its function. Nature offers the best example of wholesome integration of purpose and design, so he referred to this new ideology as 'organic architecture,' one that is not only a radical departure from tradition, but understands an intricate relationships between structure, time and site, integrating all three into one meaningful whole where harmony exists between those that reside in the dwelling and its physical environment.

Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* answer choices change the meaning in important ways or leave out essential information.

- (A) The notion that aesthetic representation is equivalent to communication of meaning and quality was inherent in the various types of buildings.
- (B) A variety of different structures adopted the idea of natural, open space and reflected the view that their purpose should be the main point in constructing buildings.
- (C) Architecture has been compared to art since both focus on trying to communicate quality which in architecture is achieved through different types of structures.
- (D) Skyscrapers and commercial enterprises focused on expanding space inside the buildings and decorating their exterior.



**전략 1 적용** 음영된 문장에서 부가 정보는 제거하고 핵심 정보만 남긴다.

The concept of natural, open space in architecture soon spread ① **from residential houses to skyscrapers, commercial enterprises, bridges, and gas stations, among others**, all displaying an inherent belief that the essential focus of the structure should be derived from its purpose, ② **implying artistic expression is tantamount to communication of meaning and quality**.

위의 음영된 문장에서 부가 정보인 ①을 a variety of different structures로 간략화하고 ②를 생각하면 아래의 핵심 정보 문장만 남는다.

The concept of natural, open space in architecture soon spread over a variety of different structures, all displaying an inherent belief that the essential focus of the structure should be derived from its purpose.

**전략 2 적용** 핵심 정보를 가장 잘 paraphrase한 문장은 (B)이다.

핵심 정보 문장	Paraphrase한 문장
The concept of natural, open space in architecture soon spread over a variety of different structures, all displaying an inherent belief that the essential focus of the structure should be derived from its purpose.	A variety of different structures adopted the idea of natural, open space and reflected the view that their purpose should be the main point in constructing buildings.

위 핵심 정보 문장의 목적어와 주어가 보기 (B)에서 주어와 목적어로 바뀌어 쓰여 있고, displaying an inherent belief ~가 reflected the view ~로 바뀌어 쓰여 있다.

**전략 3 적용** (A) 핵심 정보를 빠뜨린 오답

음영된 문장의 핵심 정보에 해당하는 '건축물의 초점은 목적에서 찾아야 한다'라는 내용을 포함하고 있지 않다.

(C) 원문의 의미를 현저하게 바꾸어 버린 오답

'건축은 예술에 견주어진다'라는 것은 음영된 문장의 의미를 바꾸어 버린 것이다.

(D) 원문의 의미를 현저하게 바꾸어 버린 오답

'고층 빌딩과 사업체가 공간 확장과 건물 외부 장식에 초점을 맞추었다'는 내용은 음영된 문장의 의미를 바꾸어 버린 것이다.

**정답** (B)



# HACKERS PRACTICE

● Choose the correctly simplified sentence for each given sentence.

1. While today quilts are often regarded as works of art hung on walls for the purpose of decorating a room, they were traditionally a frugal way of making use of worn-out, castoff, or outgrown clothing.  
(A) Quilts were used practically in the past, but they appear as pieces of art nowadays.  
(B) Although quilts came into use for decorating walls, they were not considered economical.
  
2. Even though the British governors' military duties kept them mostly on the British frontier, they spent the winter months in London, the most convenient city from which to reach any part of Britain or the continental Empire.  
(A) London's geographical advantage made it the most desirable residence for the governors of Britain when they were not on the frontier.  
(B) Governors wintered in London for easy access to other areas although their military responsibilities generally required them to stay on the borders.
  
3. The Sierra Nevada is primarily responsible for creating the arid continental climate of the Great Basin-Mojave Desert region by capturing moisture from Pacific storm fronts before the moisture reaches the desert.  
(A) Moisture from Pacific storm fronts is caught in the Great Basin-Mojave Desert, preventing the Sierra Nevada from gaining any precipitation.  
(B) The aridity of the Great Basin-Mojave Desert results from the Sierra Nevada, which keeps humidity away from the desert.

## Vocabulary

The word  in the passage is closest in meaning to

- |             |                 |                |                |                 |
|-------------|-----------------|----------------|----------------|-----------------|
| 1 frugal    | (A) peremptory  | (B) salubrious | (C) cautious   | (D) thrifty     |
| 2 mostly    | (A) desperately | (B) promptly   | (C) mainly     | (D) hardly      |
| 3 capturing | (A) seizing     | (B) evading    | (C) amplifying | (D) evaporating |

4. Artificial reefs can cause problems if poorly designed and mounted because insufficiently weighted materials such as car bodies, tires, old vessels, and concrete rubble which end up miles away from the reef site by strong windstorms can damage sedentary organisms of nearby natural reef sites.
- (A) A danger that carelessly planned artificial reefs pose is the possibility that the materials involved in constructing them may disturb the inhabitants in nearby natural reefs.
- (B) One problem with artificial reefs is that they are easily damaged if the debris used to build them has been weighted incorrectly thus leaving the possibility of being loosened by winds.
5. Although no post-cranial bones of Pakicetus were found, it seemed logical to assume, from the teeth and ear structure, that the animal spent a great deal of time in shallow water looking for food, but returned to land to rest, somewhat like a modern sea lion.
- (A) By swimming in shallow water, Pakicetus and sea lions alike lost their post-cranial bones, but this gave them the ability to stay underwater for long periods of time.
- (B) The structure of teeth and ear showed that Pakicetus mostly inhabited the water in search of food, but rested on land, even though its post-cranial bones were never discovered.
6. Civil libertarians often support the Democratic Party because its positions on such issues as civil rights and separation of church and state are more closely aligned to their own than the positions of the Republican Party, and because the Democrats' economic agenda may be more appealing to them than that of the Libertarian Party.
- (A) Because Democrats and Libertarian Party share many viewpoints with civil libertarians on various issues, civil libertarians often prefer Republicans to them.
- (B) Because in many aspects their views correspond with the Democratic Party's and they are attracted by its economic plan, civil libertarians follow the Democratic Party.

**Vocabulary** The word        in the passage is closest in meaning to

- |   |           |              |                |                |             |
|---|-----------|--------------|----------------|----------------|-------------|
| 4 | sedentary | (A) tranquil | (B) stationary | (C) serial     | (D) various |
| 5 | assume    | (A) suppose  | (B) undertake  | (C) pretend    | (D) wilt    |
| 6 | appealing | (A) apparent | (B) desirable  | (C) profitable | (D) mundane |

- Choose all correctly simplified sentences for each given sentence.

7. The Taos' tribal customs remained largely unchanged due in part to a strict taboo on marriage outside of the pueblo that maintained racial purity, cultural integrity as well as a strong sense of the community even though the Taos people had friendly relationships with other tribes.
- (A) Although the Taos pueblo enjoyed amiable relations with other tribes, it kept its customs intact through prohibition of marriage outside the immediate tribe.
- (B) The tribal rituals of the Taos remained invariable largely because the Taos were able to sustain positive, friendly relations with their non-Taos neighbors.
- (C) Despite the fact that the Taos were on friendly terms with non-Taos Indians, their tribal customs were affected after a ban on marriage outside the community was imposed.
- (D) While remaining friendly with outsiders, the Taos were able to preserve their tribal customs by banning marriage outside the tribe.
8. Substantial calorie reduction (up to 50 percent in some studies) can not only reduce the rate of cell proliferation, which is a key factor in the modern epidemic of cancer, but extend the maximum life span of a variety of organisms, including rats, flies, and worms.
- (A) Cell proliferation occasionally causes cancer in a diversity of organisms due to continuous low-calorie consumption.
- (B) Abstaining calorie intake can hinder cell multiplication rate and prevent cancer, resulting in prolonged life spans.
- (C) Declines in caloric ingestion can result in the slowing of cell multiplication rate and increase in the life span of diverse creatures.
- (D) Decreasing caloric consumption has been proven to lengthen the longevity of various organisms as well as cut down the cell proliferation rate.

**Vocabulary** The word        in the passage is closest in meaning to

- |               |                |                 |               |                |
|---------------|----------------|-----------------|---------------|----------------|
| 7 strict      | (A) groundless | (B) lubricious  | (C) repulsive | (D) rigid      |
| friendly      | (A) myopic     | (B) ragged      | (C) favorable | (D) profitable |
| 8 Substantial | (A) Standard   | (B) Significant | (C) Sizable   | (D) Affluent   |
| key           | (A) leading    | (B) rudimentary | (C) bustling  | (D) natural    |



9. In the Aristotelian tradition, dramatic performances evoked the purging of fear and pity from the soul either by portraying the downfall of better than average humans (i.e. heroes, kings, gods) from an elevated position to bad fortune, or representing average people who were raised to better standards when circumstances shifted from unfavorable to indulgent or advantageous.
- (A) People who saw Aristotelian dramas in which the mighty fell or the low were elevated felt that their souls were cleansed.
- (B) The depiction of the downfall of the power holders and the elevation of ordinary people in Aristotelian dramas was the way of removing fear and pity from viewers.
- (C) Aristotelian tradition led to the relief of fear and pity from the people who saw the performances that featured the events in the lives of both the rich and the poor.
- (D) Aristotelian dramas rid the soul of fear and pity, focusing on either the decline of the powerful or the rise of the normal.
10. Although two cerebral hemispheres in humans demonstrate intricate communication with each other across the corpus callosum, a large collection of neural fibers that unites both areas of the brain, the partnership between them is not equitable and most experiments show that one usually dominates the other, as illustrated by handedness, the manifestation of higher motor functions using either the left or right hand.
- (A) Experiments on the human brain have shown that the corpus callosum is responsible for transmitting information from one hemisphere to the other.
- (B) The unequal transmission of information between the two hemispheres of the human brain results from the malfunction of the corpus callosum.
- (C) People's preference for their left or right hands demonstrates that if both halves of the brain exchange information, the connection between the two is evident.
- (D) Despite the interaction between the two hemispheres of the human brain via the corpus callosum, one half generally has power over the other.

**Vocabulary** The word        in the passage is closest in meaning to

- |    |               |                   |                |                  |               |
|----|---------------|-------------------|----------------|------------------|---------------|
| 9  | portraying    | (A) entailing     | (B) spawning   | (C) depicting    | (D) enlisting |
|    | circumstances | (A) substratums   | (B) situations | (C) maneuvers    | (D) crests    |
| 10 | dominates     | (A) compels       | (B) echoes     | (C) mitigates    | (D) reigns    |
|    | manifestation | (A) demonstration | (B) mastery    | (C) presentiment | (D) onset     |



11. Of course there had previously been some forms of mass consumption, such as vaudeville, plays, and lectures, which had all been presented to large groups of spectators, but the projection of film and the ensuing craze and popularity with which the public received it encouraged large capital investments and the production of new titles to satiate the public demand.
- (A) Films became so popular that they overwhelmed the ability of previous forms of amusing performances to entertain spectators.
  - (B) Whereas types of mass consumption were present earlier, the projection of film and the public enthusiasm drew large funds to meet the demand.
  - (C) Although forms of mass consumption were in existence before, the film projection and its popularity interested a great deal of capital in making movies.
  - (D) Since movies in general required so much investment to produce new titles, there wasn't enough to satisfy the public demand for them.
12. Herbert C. Hoover is best remembered for his perceived inaction in responding to the Great Depression, as compared to the almost frenetic interventionism of his popular successor, Franklin D. Roosevelt, but this is lamentable because although Hoover was somewhat of a failure as President, outside of those four years of his life he was a very successful humanitarian.
- (A) While the general public has a high opinion of Roosevelt because of his prompt action responding to the Great Depression, it tends to belittle Hoover's political achievements.
  - (B) Hoover remains in people's memory as a failed President because of his insufficient response to the Great Depression, but actually he was a generous benefactor before and after his White House years.
  - (C) Even though he is most remembered for failing to react promptly to the Great Depression, Hoover was known for his charitable actions prior to and following his Presidency.
  - (D) Hoover had no choice but to watch Roosevelt intervene aggressively in the Great Depression because he was too politically weak to object to Roosevelt's action.

**Vocabulary** The word    in the passage is closest in meaning to

- |              |                   |                  |               |                |
|--------------|-------------------|------------------|---------------|----------------|
| 11 ensuing   | (A) retreating    | (B) unconvincing | (C) following | (D) foreboding |
| satiate      | (A) gratify       | (B) jumble       | (C) deduct    | (D) convene    |
| 12 perceived | (A) disillusioned | (B) corrupted    | (C) activated | (D) discerned  |
| lamentable   | (A) malleable     | (B) estimable    | (C) reachable | (D) deplorable |

13. Lithography was invented around 1796 in Germany by an otherwise unknown Bavarian playwright, Alois Senefelder, who **accidentally** discovered that he could **duplicate** his scripts by writing them in greasy crayon on slabs of limestone and then printing them with rolled-on ink. <sup>1</sup>Because the local limestone retained so relentlessly any crayon marks applied to its surface, even after repeated inking and printing, lithographs (so called from the Latin for stone, *litho*, and mark, *graph*) were able to print in almost unlimited quantities. Thanks to **ease** of production and economical distribution, it did not take long for lithography to find a broad range of applications in art and commerce. <sup>2</sup>As a method of multiplying drawings, it was embraced by portraitists and illustrators, especially those associated with the popular press, and it proved an effective means of graphic invention for many of the period's greatest artists.

- 1 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Lithographs could make unlimited copies of prints since limestone keeps crayon marks persistently despite repeated uses.
  - (B) Limestone for lithographs was able to be reused many times because of the physical characteristics of the crayon.
  - (C) The ability of lithographs to accept crayon marks and retain them after repeated uses was attributed to the traits of limestone.
  - (D) Crayon was the best material for lithographs because it made it possible to print a large number of copies.
- 2 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The popularity of lithography resulted in many portraitists and illustrators becoming known as the greatest artists of their time.
  - (B) Lithography was well-liked because it allowed images to be reproduced and led to important innovations in graphic design.
  - (C) Lithography was popularized by many artists for its ability to make many copies and helped graphic invention.
  - (D) Many great artists, after adopting lithography, emerged from the graphic arts industry and had an impact on the popular press.

**Vocabulary** The word    in the passage is closest in meaning to

- |                 |                   |                  |                  |                  |
|-----------------|-------------------|------------------|------------------|------------------|
| 13 accidentally | (A) instinctively | (B) incidentally | (C) additionally | (D) tightly      |
| duplicate       | (A) reproduce     | (B) exaggerate   | (C) annul        | (D) substantiate |
| ease            | (A) bond          | (B) relevance    | (C) readiness    | (D) conformation |



14. The first practical typewriter, the Sholes & Glidden, was invented by Christopher Latham Sholes and marketed by the Remington Arms Company in 1873. The action of the type bars in the early typewriters was very sluggish, and tended to jam frequently. <sup>1</sup>To fix this problem, Sholes obtained a list of the most common letters used in English, and rearranged his keyboard from an alphabetic arrangement to one in which the most common pairs of letters were spread fairly far apart on the keyboard. <sup>2</sup>Because typists at that time used the “hunt-and-peck” method, Sholes’ arrangement increased the time it took for the typists to hit the keys for common two-letter combinations enough to ensure that each type bar had time to fall back sufficiently far to be out of the way before the next one came up. The Sholes & Glidden was a decorative machine, boasting painted flowers and decals and looked rather like a sewing machine.

1 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) By listing the letters in order of use, Sholes insured that his machine would not jam and thus become the most common keyboard.
- (B) Sholes utilized a list of commonly used letters to ensure that they were easily accessible on his keyboard design.
- (C) Rather than using an alphabetical layout, Sholes scattered the most often used letters of the alphabet throughout the keyboard.
- (D) Sholes placed the most frequently used pairs of letters far away from each other in order to prevent the key bars from jamming.

2 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) The layout of the keyboard in the 19<sup>th</sup> century made it possible for typists to make two-letter combinations quickly using the “hunt-and-peck” method.
- (B) Since typists at the time had to search for each key, Sholes’ keyboard design made sure that they wouldn’t be able to type fast enough to wedge the type bars.
- (C) “Hunt-and-peck” style keyboards kept type bars from hitting each other because they arranged popular two-letter combinations on opposite sides of the keyboard.
- (D) In an effort to make certain that the key bars stay out of each other’s way, Sholes based his new keyboard design on the “hunt-and-peck” method.

**Vocabulary** The word   in the passage is closest in meaning to

- |              |                |               |                 |                  |
|--------------|----------------|---------------|-----------------|------------------|
| 14 practical | (A) pliable    | (B) primeval  | (C) pertinent   | (D) pragmatic    |
| sluggish     | (A) lethargic  | (B) corporeal | (C) subordinate | (D) contemptible |
| boasting     | (A) bombarding | (B) bragging  | (C) battering   | (D) broadening   |

15. The Sun Dance was performed by several Plains Indian tribes, but is usually attributed to the Hopi Indians of the southwestern United States. It was an **occasion** when all members of the community and some invited guests would gather to reaffirm their **underlying** belief systems about the role of the universe and the supernatural in their lives. <sup>1</sup>In complex versions, some selected tribal members made a commitment to perform at this annual spring festival, and spent part of the winter season preparing colorful costumes, beaded headdresses, and drums. Once the festivities began, the chosen few would don their apparel, form a camp circle, and erect a pole in the center to symbolize spiritual power and mystical energy. Dancing **commenced** around this pole, continuing intermittently for days until the actors fell into frenzy, sometimes performing self-torture to end the rite, or simply collapsing from exhaustion. <sup>2</sup>Because the Sun Dance inspired all members of the tribe to work together and was a way to reach the incredible power of the spirit world, it was a method of maintaining social cohesion as well as ensuring a balance between earthly desires and the divine.

- 1 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Although many different items were needed for the spring festival, only a few people participated in making them.
  - (B) A portion of the tribe would spend the previous season preparing for the performance after pledging to dance at the spring festival.
  - (C) Only those deemed worthy were allowed to dance at the spring festival and to spend the winter getting ready.
  - (D) Tribal members would promise several months in advance to have time to arrange for the more elaborate festivals.
- 2 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Due to the total tribal participation and connection to the divinity, the Sun Dance had both social and spiritual significance for the tribe.
  - (B) The religious element of the Sun Dance meant that most tribal members rejected their earthly concerns during the festival.
  - (C) The various members of the tribe had to be cohesive to make the Sun Dance successful and balanced to harmonize with the spirit world.
  - (D) The goal of the Sun Dance was to foster good inter-tribal relationships and to reflect their spiritual beliefs through dancing.

**Vocabulary** The word  in the passage is closest in meaning to

- |             |               |             |                 |               |
|-------------|---------------|-------------|-----------------|---------------|
| 15 occasion | (A) oversight | (B) affair  | (C) adage       | (D) intent    |
| underlying  | (A) placid    | (B) austere | (C) outstanding | (D) intrinsic |
| commenced   | (A) launched  | (B) loomed  | (C) muttered    | (D) thrust    |



16. The problem that many paleontologists and evolutionary biologists have with phenetic classifications is that they do not always accurately depict evolutionary relationships. In other words, the categories often group organisms that are not necessarily closely related, just similar in their overall grade of evolution. This has the effect of excluding some organisms that have inherited a conspicuous evolutionary novelty and lumping together other organisms based on more primitive traits. For example, birds are now known to be the direct evolutionary descendents of small, predatory dinosaurs. <sup>1</sup>The skeletal similarities between Mesozoic birds and Coelurosaurian dinosaurs are remarkable, yet birds are not classified as reptiles because they have feathers. Feathers are the evolutionary novelties that distinguish birds from reptiles. Therefore, because dinosaurs lack feathers, they are grouped with crocodiles as reptiles, even though they are much more distantly related to crocodiles than they are to birds. Another example is the so called “mammal-like reptiles,” a group of extinct animals that are defined on their lack of several key features possessed by modern mammals. <sup>2</sup>These animals are classified as reptiles because they appear to be at a reptilian grade of evolution – sprawling stance, lack of inner ear bones – even though they have only a distant evolutionary relationship to reptiles.

- 1 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Although Coelurosaurian dinosaurs and Mesozoic birds have many things in common, they are not evolutionarily related.
  - (B) The possession of feathers has prevented Mesozoic birds from being categorized as reptiles.
  - (C) Since birds are feathered, they are not put into the same category as dinosaur despite their similarities.
  - (D) Mesozoic birds are extraordinary because they have a skeletal structure similar to a Coelurosaurian dinosaur.
- 2 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Although they are not closely related to reptiles in evolution, “mammal-like reptiles” are termed reptiles due to some reptilian traits.
  - (B) Due to the absence of some mammalian features, “mammal-like reptiles” are classified as reptiles to demonstration.
  - (C) The classification of “mammal-like reptiles” as reptiles is based on general characteristics rather than a close evolutionary relationship.
  - (D) The sprawling stance and the lack of inner ear bones are two of the distinguishing characteristics of a reptile.

**Vocabulary** The word          in the passage is closest in meaning to

- |             |                  |              |                |              |
|-------------|------------------|--------------|----------------|--------------|
| 16 overall  | (A) sectional    | (B) terminal | (C) total      | (D) dubious  |
| conspicuous | (A) catastrophic | (B) salient  | (C) headstrong | (D) trifling |
| possessed   | (A) held         | (B) cast     | (C) engrossed  | (D) hyped    |

17. The history of mining in Nevada is so intertwined with the history of the state that at certain points the two cannot be separated. In fact, were it not for mining, Nevada would probably not have achieved statehood until decades later than it did. As it was, the "Silver State" got its nickname and bought its way into the Union with silver mined in the famous Comstock Lode. In the middle 1800s, the area that would become Nevada was mostly a highway for those heading to search for gold in California. In 1859, however, the discovery of massive silver deposits quickly made Virginia City the most famous of all western mining camps. The rapid influx of prospectors and settlers resulted in the organization of the Nevada Territory just two years later. In the east, the American Civil War was brewing. <sup>1</sup>Lincoln, realizing the area's great mineral wealth could help the Union, and needing another Northern state to support his proposed anti-slavery amendment to the Constitution, encouraged the territory to seek admission to the Union. Even though Nevada boasted only about one-fifth of the 127,381 people required for statehood, Congress accepted the proposed state constitution and admitted Nevada as the 36<sup>th</sup> state in 1864. Nevada's motto, "Battle Born," reflects its role in this stormy period of history. <sup>2</sup>Since then, mining's impact on Nevada's economy has remained immense, both in the influx of money it has brought in boom times and in the noticeable economic downturns when mineral demand wanes.

- 1 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Lincoln wanted the Nevada Territory to join the Union because its great wealth would be an asset to the anti-slavery movement.
  - (B) On account of economic and political circumstances, Lincoln advocated Nevada's application to become part of the Union.
  - (C) Using its great wealth and promising to support Lincoln, the Nevada Territory was able to become a member of the Union.
  - (D) The Nevada Territory was inspired to apply for statehood because it would render aid for anti-slavery amendment to the Union.
- 2 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The decreasing demand for minerals has led to Nevada spending a great deal of money to support the mining industry.
  - (B) The boom and bust of the Nevada mining industry has had a huge influence on the region's economy.
  - (C) The Nevada economy has been boosted by the inpouring of funds from the mining industry.
  - (D) The ups and downs of the Nevada's economy have caused considerable changes in mineral demands.

**Vocabulary** The word        in the passage is closest in meaning to

- |              |               |                |                   |                  |
|--------------|---------------|----------------|-------------------|------------------|
| 17 separated | (A) snared    | (B) abominated | (C) substantiated | (D) split        |
| deposits     | (A) offshoots | (B) divisions  | (C) stacks        | (D) divergences  |
| influx       | (A) coalition | (B) inundation | (C) entreaty      | (D) interference |

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## [1] Electric Fish

- 1 ➡ Visual, auditory, and chemical correspondence is available to organisms in all environments. Electrical communication, however, is limited to water, as air is too effective an insulator to pass signals from sender to receiver. <sup>1</sup>While many fish are able to detect small currents, electric fish are unique in that they are able to navigate and communicate by generating, receiving, and processing electric signals via highly specialized electric organs. Electric eels, the most well known of these, belong to a class known as “strongly electric” that is capable of giving off discharges of up to 150 volts. Others, such as the black ghost knife, are classified as “weakly electric,” because their maximum emissions are generally less than a single volt. Apart from the strong volleys used by the former for predation, each sort uses its electric organs in similar ways.
- 2 <sup>2</sup>The electric organs are composed of cells called electrocytes, which resemble muscle cells in the sense that they exist at the end of axons, as a muscle cell would, although they have no contracting ability. Having a distinctly disc-like form, these are aligned like cells in a battery. Up to 200,000 coordinate in series, each capable of producing a small voltage via biochemical activity. When discharged simultaneously, the currents amalgamate into a potential difference that is the sum of each voltage. To stun or kill, strongly electric fish can modulate this to exude large blasts. Otherwise, both classes utilize electrocytes to create a weak perpetual field around their bodies.
- 3 This works in tandem with a series of electro receptors spread across the fish’s body surface. Each acts like a miniature voltmeter that monitors the voltage across the skin, which in turn conveys sensory information to the brain that creates a “picture” of objects in the surrounding waters. This process is called electrolocation. When nearby objects in the water perturb the fish’s field, it alters the pattern of current flow. <sup>3</sup>If the object is less conductive than the water, such as a rock, electric current will be deflected around the object, but if it is more conductive, such as a minnow, electric current will be routed through, because it represents a path of lower resistance. This allows the fish to detect changes in its field – information that it uses to gauge differences between prey, obstacles, enemies, and allies.
- 4 Electrical data can also be used by the fish to communicate with each other with the object of reproducing by means of electric organ discharge (EOD), which can be encoded with some information. Each electric fish’s EOD is released within a unique range of frequencies. When a male receives a feminine EOD, it causes deliberate changes to its EOD frequency in order to display its reproductive prowess and encourage the female to select it as a mate. Since its eligibility for being selected is usually determined by its frequency range, males which are able to send out electrical impulses on the most extreme frequencies have better opportunities to attract females and spawn. In schools where mating possibilities are limited, fights may erupt between two males for the same female.

One will alter its EOD to mimic that of the other, effectively jamming its opponent's signal, and then engage in a battle that will continue until one of them is worn out and ceases emitting its EOD in surrender. However, when natural frequencies match without aggressive intent, the fish will reflexively shift them to avoid conflict. <sup>6</sup>When one detects another that has nearly the same frequency, it can alter its oscillation to be slightly higher; subsequently, the other will modulate its own to be marginally lower. This function, known as the Jamming Avoidance Response, or JAR, ensures peaceful cohesion within the immediate population.

1. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) The ability to communicate and navigate using electric currents is a common attribute in a variety of different types of fish.
  - (B) Although other fish can sense electricity, electric fish are special because they utilize this ability for different purposes.
  - (C) The possession of distinctive electric organs allows electric fish to use electricity for a variety of functions unavailable to other fish.
  - (D) Electric fish use their specialized electric organs to generate currents of electricity that are too small for other fish to detect.
2. The phrase *Apart from* in the passage is closest in meaning to
  - (A) In substitute for
  - (B) Unlike
  - (C) Aside from
  - (D) Far from



3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Except for the lack of contraction facility, the electrocytes that form the electric organs are comparable to muscle cells.
  - (B) Although electrocytes making up the electric organs are unable to contract, they are similar to muscle cell in their location.
  - (C) The electric organs known as electrocytes are analogous to muscle cells because they are found on the end of axons.
  - (D) Electrocytes are a form of contracting muscle cell that are commonly found on the tips of axons in electric fish.
4. The word aligned in the passage is closest in meaning to
- (A) inflated
  - (B) alleged
  - (C) jeered
  - (D) ordered
5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Electric currents are deflected around less conductive objects like rocks, but pass through more conductive objects like minnows.
  - (B) The manner in which objects in the water react to the electric current is dependent on how well they conduct electricity.
  - (C) The greater the conductivity of an object, the less resistance it will offer to the electrical current in the water.
  - (D) The electric current will behave differently depending on the conductivity of the object it encounters relative to the water.
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Electric fish will change their oscillation when faced with another that uses a similar signal.
  - (B) Electric fish with similar frequencies must alter their oscillation in order to detect each other.
  - (C) If two electric fish with similar frequencies meet, the lower oscillation will be increased.
  - (D) Electric fish frequently adjust their frequency to have a higher oscillation than other fish.


7. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Electric fish are a unique type of an animal capable of using electricity as one of their senses.**

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Answer Choices

- |   |   |
|---|---|
| (A) Strongly electric fish emit a broad spectrum of voltages in response to assaults from a variety of invaders.  | (D) Electric fish have the capacity for generating electric charges through long arrays of cells in their body. |
| (B) The field around electric fish's body enables them to recognize the objects in their surrounding environment. | (E) Electric fish which have almost the same frequency change their frequencies in Jamming Avoidance Response.  |
| (C) Electric fish use their electric organ discharges for the purpose of mating communication.                    | (F) A multitude of emissions by electric fish require them to adopt limited frequencies for communications.     |

 Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.392

## [2] The Fremont

- 1 The Fremont people were named by Noel Morss of Harvard's Peabody Museum after the Fremont River in Utah, where they settled between 400 and 1300 A.D. Most archaeologists believe that the first people to settle the region were hunter-gatherers from the Colorado Plateau, who immigrated to the area between 2,500 and 1,500 years ago. From about 2,000 years ago, maize and other plants began to be cultivated in what is now central Utah. <sup>1</sup>These early Fremont did not build settled villages and continued their nomadic ways, spreading the knowledge of farming and pottery building all around the area, but 700 years later, less itinerant lifestyles emerged, with a number of farming communities developing, which consisted of semi-subterranean timber and mud pit houses with above ground granaries. They also developed farming techniques as sophisticated as their contemporaries, using water diversion techniques such as irrigation.
- 2 It was their construction of irrigation canals and houses, virtually indistinguishable in form and technology from the Anasazi, a well-studied group which had lived south of Utah, that initially led to the belief that they were an offshoot, or had previously separated from the Anasazi. While less socially organized, with many more disparate groups than their counterparts, the Fremont were much more adaptable, with pockets occupying actually every niche and landscape in the region. As more remnants of their culture were excavated, Morss was able to prove that the Fremont were a separate group. <sup>2</sup>One difficulty he encountered was trying to demonstrate that the scattered multiple small communities constituted a cohesive culture and that they had affinities that extended beyond just their location.
- 3 Despite not fitting as neatly in archaeological schemes as other ancient civilizations, distinct actions and patterns tie the disparate groups together. The first is the Fremont one-rod and bundle basketry style that often employed cattails or bulrushes and was easily distinguishable from the coiled style of the Anasazi precursors, the Basketmakers. The Fremont also constructed moccasins from the hock\* of a bison or the forelegs of deer or sheep. These had the dewclaws of animals sewn into the heels as hobnails, which gave extra traction in slippery conditions. <sup>4</sup>Although leather usually does not preserve well, a few samples have been found due to the arid conditions in Utah and are easily discriminated from the yucca sandals made by those who moved into the regions later. Thin-walled gray pottery shards have been found at every site, which unfortunately, because of their fragility, are not complete specimens. Most notably, they had a distinctive artistic style, which they often carved on walls, depicting trapezoidal human figures bedecked with necklaces which can be seen in every settlement regardless of the location or the materials used in construction.
- 4 From 1250 A.D., the Fremont inexplicably began to disappear in the haphazard manner in which they appeared, leaving scant details to explain the abruptness of their departure. <sup>6</sup>Like the Anasazi, the exact reasons for their disappearance are unknown, but there was no single cause, but rather a group of factors, which in combination brought about the change. The most commonly cited reason is that the changes in the climate, including decreased precipitation, may have forced the Fremont to become more dependent upon



wild game. Another factor may have been the migration of other peoples into the region, which may have either displaced the Fremont via competition for resources or absorbed them into their cultures. Owing to the length of time and the paucity of relics left behind, perhaps the cause of their demise may never be known, but it is clear that these resourceful and creative people had a deep understanding of the land they inhabited.

Glossary
hock: tarsal joint of the hind leg of hoofed mammals

- Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - As the Fremont accumulated knowledge of farming and pottery, they gradually settled into secure communities.
  - Because of the need to exchange information with others in the area, the settlement of the Fremont was delayed.
  - Although the Fremont initially wandered from place to place, they eventually established many agrarian societies.
  - Once the Fremont gained methods required to build permanent structures, they gave up their nomadic lifestyles.
- Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - The Fremont were the only culture to use multiple sites, making it difficult for Morss to verify they were really one.
  - The fact that numerous different groups at a distance had a similar culture was an obstacle to Morss' work.
  - Morss attempted to tie the disparate groups together by their similarities with no consideration of their respective location.
  - Without a central place for meeting, Morss was unable to prove that the diverse camps all belonged to one culture.



3. The word *extra* in the passage is closest in meaning to
- (A) beneficial
  - (B) primary
  - (C) stagnant
  - (D) additional
4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The leather shoes of the Fremont were kept in good condition by the weather even though their quality was lower than the yucca sandals found later in Utah.
  - (B) Yucca sandals have been better preserved than those of the Fremont although the weather conditions for the preservation of leather greatly improved over time.
  - (C) Due to the dry weather in Utah, some of the moccasins created by the Fremont are still available.
  - (D) Despite their perishable nature, the climate in Utah made it possible for Fremont leather shoes, distinct from those made of yucca, to survive.
5. The phrase *regardless of* in the passage is closest in meaning to
- (A) in keeping with
  - (B) irrespective of
  - (C) for the sake of
  - (D) in terms of
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The collapse of the Anasazi gave rise to many changes that led to the disappearance of the Fremont.
  - (B) The vanishment of the Fremont was the result of many combined factors that are obscure.
  - (C) The extinction of the Anasazi and the Fremont is somehow related, although the cause is not known.
  - (D) The destruction of the Fremont happened in the same manner in which the Anasazi disappeared.
7. The word *demise* in the passage is closest in meaning to
- (A) overtone
  - (B) affiliation
  - (C) bevy
  - (D) fall

8. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The Fremont in Utah were a distinct group which developed independent of other cultures.**

Answer Choices

- |  |   |
|--|---|
| (A) While a number of communities were widely distributed, they all had lots of cultural traits in common. | (D) They exhausted all the game in the area with excessive hunting and had to abandon their cities. |
| (B) They had some relations with the Anasazi as can be seen in their constructions and farming.            | (E) They are best known for their carvings which showed unusually shaped people.                    |
| (C) They set up many villages and adapted to a wide variety of environments.                               | (F) Not enough information has remained to accurately account for why their civilization ended.     |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.393

### [3] Hydroelectric Power

- <sup>1</sup> Increasing demographic pressure and environmental concerns have been the impetus for renewed research into feasible alternative energies which can power society into the 21<sup>st</sup> century. Unlike conventional fossil fuels, water is an abundant, clean, renewable source of power that many believe holds great promise. <sup>2</sup>Although large-scale, turbine-driven hydroelectric dams are a staple of industrialized societies, their social and ecological fallout has resulted in detractors effectively blocking the construction of new ones in some countries, and delaying them in others. However, their turbine-driven technologies offer tantalizing possibilities for environmentally conscious aspirants interested in modifying them harmlessly.
- <sup>2</sup> Currently, there are approximately 40,000 big hydroelectric dams worldwide that supply 20% of global power needs. These accumulate water in a reservoir that gets channeled downward into a substation, the force of which rotates turbines that generate electricity. <sup>3</sup>As the amount of extractable energy is directly proportional to the distance between reservoir and substation, it is therefore prudent to build towering dams that hold tremendous amounts of water. This means that enormous swaths of acreage must be submerged. Over the past century, this has necessitated the forcible relocation of millions of people from their ancestral lands and cultural attachments, a diaspora that no amount of compensation may ever replace. Additionally, man-made saturation wipes out all land flora resulting in the simultaneous decomposition of massive amounts of biomass. This mass extinction also precipitates the release of toxic levels of mercury previously kept inert in rocks into the water, bringing about a lethal result to many fish species. As these problems are inevitable with the wholesale flooding of inhabitable lands, environmental researchers have turned their attention toward ocean-based methods of turbine rotation, predominantly via its tides and waves.
- <sup>3</sup> The prevalent tidal harnessing innovation is the Ebb Generator, which erects a dam, known as a barrage, across an estuary, with sluice gates fitted with turbines that allow the basin to fill on the incoming high tides and to exit on the outgoing one, producing energy each way. The largest such system, the La Rance plant in France, is capable of generating 240 megawatts daily and accounts for 10% of France's annual hydroelectric power production, although its environmental ramifications are a cause for concern. <sup>7</sup>Because estuaries often have a high volume of sediments moving through them to the sea, the introduction of a barrage reduces their dispersal and accumulates concentrations of pollutants within the basin, leading to increased bacteria growth. Further, when barrage gates are closed, fish attempt to pass through turbines. Even the most fish-friendly turbine design has a mortality-per-pass rate of approximately 15%, a devastating figure for local species that traverse nearby on a daily basis.
- <sup>4</sup> Eliminating these altogether by working instead with the power of waves has therefore drawn attention from speculative environmentalists, who also tout the fact that waves can be exploited in more locations, with coastal regions such as the UK possibly able to churn out as much as 5% of its power requirements from this source. <sup>8</sup>Current wave energy systems place objects on the water's surface and yield power by rising and falling with the motion of the surf as an oscillating action within their internal mechanism pivots a turbine



that can send electricity through an undersea cable to a power station on the shore. More commonly, they feature a column that looks like a chimney which stands on the seabed and admits waves through an opening near its base. In the latter, as breakers rise and fall, so does the water inside the column. When the water level rises, air is forced up and out through a turbine, which spins and drives the generator. As it falls again, air is sucked back in from the atmosphere to fill the resulting vacuum and once again the generator is activated. The development of prototypes using these methods has been hampered by their high cost and the need of wave technologies to be protected from the pounding surf and saltwater corrosion. Proponents argue that if society truly values the environmental benefits of such benevolent undertakings, huge initial investments are certainly worthwhile, even if they portend only vague returns at some undefined point in the future.

1. The word *impetus* in the passage is closest in meaning to
  - (A) result
  - (B) stimulus
  - (C) scent
  - (D) verge
  
2. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) The diverse problems associated with dams keep new ones from being built despite reliance on dams in industrialized societies.
  - (B) Social and ecological concerns have hampered the construction of new hydroelectric dams in a lot of countries.
  - (C) Large-scale dams are vital in industrialized countries, but their construction has been delayed in other countries.
  - (D) Industrialized societies have reduced their dependence on hydroelectric dams because of the social and ecological ramifications.
  
3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Large dams are needed because of the relationship between available energy and their holding capacity for water.
  - (B) The distance of reservoirs and substations is a point to be considered in a ground plan for a hydropower plant.
  - (C) Since efficiency tends to be affected by the scale of the dam, it is wise to build dams retaining large amounts of water.
  - (D) The construction of lofty dams is efficient since when water falls a greater distance, more power is generated.



4. The word simultaneous in the passage is closest in meaning to
- (A) improvident
  - (B) ancient
  - (C) synchronous
  - (D) vigorous
5. The word inert in the passage is closest in meaning to
- (A) dormant
  - (B) incipient
  - (C) juvenile
  - (D) meddlesome
6. The word wholesale in the passage is closest in meaning to
- (A) unwonted
  - (B) worldly
  - (C) indiscriminate
  - (D) voluble
7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) A barrage stimulates bacteria development by increasing contaminants that prevent soil deposits in tidal river areas from spreading out the ocean.
  - (B) When the volume of sediments in the estuaries grows, the amount of contaminants increases, resulting in the proliferation of bacteria.
  - (C) Increased bacteria levels resulting from the build up of pollutants are often found in estuaries with dams, as these hampers the dispersion of sediments.
  - (D) Due to their high level of bacteria-causing pollutants, estuaries with a great deal of sediments are usually not suitable locations for a barrage.
8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Oscillation of the objects on the water surface produces power to rotate a turbine connected to a power station, which in turn transforms it into electricity.
  - (B) Electricity is generated in wave systems with the movement of buoyant objects by the fluctuation of the waves, being sent to the shore station via a cable.
  - (C) Wave energy systems make use of turbines that receive their power by way of an undersea cable attached to a generating station.
  - (D) Wave energy is generated by the movement of a turbine in a device that is placed close to the shore and is affected by the motion of waves.

9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Water has long been used to generate electricity and newer hydroelectric systems are being tested.**

Answer Choices

- |   |   |
|---|---|
| (A) Waves are substantially usable source of power with their motion of rising and falling.                     | (D) When the lands near dams are flooded, the entire ecosystem is destroyed due to increased levels of mercury. |
| (B) The system which uses the force of tidal currents to turn turbines as they come in and out is in operation. | (E) The system most commonly used now is the Ebb Generator which has a minimal impact on the environment.       |
| (C) Because of the high cost of maintenance, few wave energy models have been performed in the open sea.        | (F) Traditional hydroelectric systems stored water in dams and then directed it toward a lower substation.      |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.394

#### [4] The Erie Canal

- <sup>1</sup> In the early nineteenth century, America consisted of eighteen states, thirteen of which lay to the east of the Appalachian Mountains along the coast, while on the other side were several territories surrounding the Great Lakes that were rich in timber, minerals, and fertile farmland. <sup>1</sup>For coastal settlers, the ocean provided convenient access to sources of supplies and markets for their products, but for those west of the mountains, wagon haulage over onerous tracts was their only means of connection to the Atlantic.
- <sup>2</sup> When New York Governor DeWitt Clinton proposed linking the upper Hudson River (a tributary of the Atlantic) with the eastern shore of Lake Erie via the Mohawk River valley by way of a canal that could pass through a gap in the mountains, he was met with opposition from skeptics who were unconvinced that the economic burden required to build the complicated engineering undertaking would proportionally benefit the region. <sup>3</sup>Besides, because the strip of land between Lake Erie and the Mohawk River rises up almost 600 feet (183 meters), and canal technology of the time could only manage a change of up to 12 feet (3.5 meters), safe passage would require the implementation of 84 separate canal locks, engineered contraptions that enable a boat to pass a section of the canal at one water level to another section at a different water level, but do not allow water to flood from the higher elevation into the lower. In addition, the construction would need to erect 18 aqueducts, one more than 800 feet long, to redirect stream flowage and a 900 foot dam to restructure the course of the river.
- <sup>3</sup> In 1817 Clinton convinced the state legislature to authorize the expenditure of \$7 million for what was to become the Erie Canal, the most successful public works project of the era that generated an enormous series of social and economic changes and made New York the preeminent port city in the United States. Upon opening eight years later, the canal had an immediate impact on the local area and beyond. Clinton's prophecy of a trade explosion became a reality as freight rates from Buffalo to New York – \$10 per ton, compared with \$100 per ton by road – attracted a massive amount of business. Because flatboats could haul as much as 50 tons of freight from point to point in less than six days, the quantity and variety of merchandise being brought to market skyrocketed, while at the same time prices dropped dramatically, with ramifications being felt all across America. For instance, by 1827, wheat from central New York State could be bought for less in Savannah, Georgia, than that grown in Georgia's own interior. <sup>6</sup>Nationwide demand for products from the state became so high that within a decade, New York had become the busiest port in America, with thousands of boats coming in and out daily, moving tonnages greater than those of Boston, Baltimore, and New Orleans combined.
- <sup>4</sup> New York City's population surged while Rochester, Buffalo, and a plethora of other industrial boom towns emerged along the canal route. The production and consumption of goods in each of these places rose as the populations did, increasing canal traffic. An increasing number of boats also headed west to the Great Lakes region, taking with them a wave of New England emigrants and European immigrants lured by the abundant expanses of highly fertile and inexpensive land in the area. Within three decades of the canal's opening, the Midwest had become the breadbasket of America, as wheat



production expanded exponentially, from 14 thousand bushels to eight million bushels. While canal traffic historically flowed to the west, the current changed once the Great Lakes region established itself as the heart of national agriculture, and by the middle of the nineteenth century, the majority of trade along the canal headed east with the tonnage of staples more than doubling.

- 5 From New York, huge amounts of commodities were shipped to Europe, the West Indies, and down along the domestic coast. The demand for the export and import of commodities grew substantially and spurred barge manufacturers to develop faster boats capable of taking on larger hauls, a change that forced the state to re-examine the Erie Canal in 1918. Original locks were too narrow to support the passage of wider flatbeds, and more importantly, businesses were insisting that smaller rivers which were previously unutilized be dredged for access to shorten the transportation time. The New York Barge Canal, a new system incorporating parts of the Erie Canal, was completed soon after and remained in operation until the mid-1950s when massive road infrastructures and the introduction of long-haul trucks took over the continental shipping burden.

1. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Dwellers near the seashore were favored with the Atlantic Ocean as compared with others in the west who needed the additional transportation to get to the seaside.
  - (B) People on the eastern seaboard used the sea to trade goods whereas the inhabitants in the west of the Appalachian Mountains relied on wagons to reach the Atlantic.
  - (C) Those inhabiting the regions close to the coast had a significant advantage over people who lived further inland since they could ship via the ocean.
  - (D) Since those living on the western side of the Appalachian Mountains did not have access to ocean routes, they employed wagons for transport of the products.
2. The word *opposition* in the passage is closest in meaning to
- (A) disapproval
  - (B) ambition
  - (C) exposition
  - (D) vacillation



3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The construction of the canal depended upon the use of a lot of canal locks which raised the water level in one section to match the level in another.
  - (B) In order to allow the safe passage of ships through the canal, engineers were forced to develop new technology that would prevent the canal locks from being flooded.
  - (C) Due to the great difference in the height of the two bodies of water and the technological limitations to deal with it, numerous canal locks would be needed.
  - (D) The topographical conditions of the proposed canal location pushed the boundaries of existing canal technology and presented significant engineering challenges.
4. The word preeminent in the passage is closest in meaning to
- (A) enigmatic
  - (B) convenient
  - (C) adjacent
  - (D) foremost
5. The word prophecy in the passage is closest in meaning to
- (A) menace
  - (B) forecast
  - (C) admonition
  - (D) counsel
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) As products from New York became the most popular, a large number of boats shipped its products all over the country.
  - (B) The economic impact of the Erie Canal was so huge that New York became the outstanding port city in America.
  - (C) The vast quantities of ships that moved through the New York port enabled it to meet the nation's demand for new products.
  - (D) New York grew to have the greatest volume of river traffic in America because of increased needs for its goods.
7. The word surged in the passage is closest in meaning to
- (A) camouflaged
  - (B) bent
  - (C) swelled
  - (D) retrogressed

8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The agricultural importance of the Great Lakes region in the mid 1800s brought about a drastic increment in the amount of canal traffic heading east.
  - (B) The need to convey agricultural products from the Great Lakes region led to the doubling of the tonnage of goods being shipped on the canal.
  - (C) Whereas the flow of canal traffic was traditionally from the east to the west, the trend was reversed with the increase in farm production of the Great Lakes area.
  - (D) The majority of canal traffic was composed of eastward bound trade once the land around the Great Lakes became an important agricultural area.
9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The construction of the Erie Canal played a significant role in economic growth for the whole country.**

Answer Choices

- |  |   |
|--|---|
| (A) The rise and growth of New York as a commercial center was a direct result of its shipping status.                 | (D) The construction of the canal was initially obstructed because of the unimaginable costs and technological constraints. |
| (B) People living in the areas around the Great Lakes received their supplies from the states near the Atlantic coast. | (E) The amount of goods sent to the Great Lakes decreased rapidly as the territories became self-sufficient.                |
| (C) Many areas along the canal underwent an increase in population and trade.  | (F) Clinton urged New York city to expend public money for the canal project.   |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.396

## CHAPTER 02 | Fact & Negative Fact

### Overview

Fact & Negative Fact 문제는 지문에 명시적으로 주어진 세부 정보를 묻는 질문에 대해 가장 정확하게 답을 한 것을 선택하는 유형이다. Fact 문제는 지문의 내용과 일치하는 것을, Negative Fact 문제는 지문의 내용과 일치하지 않거나 지문에 언급되지 않은 것을 답으로 선택한다. 이때 자신의 배경 지식에 근거하지 않고 지문을 통해 알 수 있는 사실에만 근거해서 보기가 사실인지 사실이 아닌지를 판단해야 한다.

Fact & Negative Fact 문제를 해결하기 위해서는, 먼저 긴 지문에서 문제 해결에 필요한 정보를 제대로 찾아내는 scanning 기술이 필요하다. 그리고 다음으로 그 찾은 정보가 보기에 제대로 paraphrase되어 있는지 여부를 확인하는 연습이 필요하다.

Fact & Negative Fact 문제는 보통 한 지문당 3~4개가 출제된다.

### Types of Questions

단락 번호가 문제에 함께 제시되며 화면에 해당 단락이 [→] 표시로 나타나고 4개의 보기가 주어진다. 종종, 단락이 제시되지 않고 전체 지문의 내용을 종합적으로 판단해서 세부 정보의 사실 여부를 파악해야 하는 문제도 출제된다.

Fact & Negative Fact 문제의 전형적인 질문 유형은 아래와 같다.

#### Fact

- According to paragraph \_\_\_\_, which of the following is true of \_\_\_\_?
- In paragraph \_\_\_\_, the author states that \_\_\_\_.
- According to paragraph \_\_\_\_, why/when/where/how \_\_\_\_?
- According to the passage, which of the following is true of \_\_\_\_?

#### Negative Fact

- All of the following are mentioned in paragraph \_\_\_\_ EXCEPT
- According to the passage, which of the following is NOT true of \_\_\_\_?



**전략 1** 문제의 keyword가 지문의 어디에 나왔는지 scanning을 통해 찾는다.

Fact & Negative Fact 문제를 풀 때는 먼저 문제에서 묻고 있는 핵심이 무엇인지를 파악한 후 그 문제 해결의 clue가 되는 keyword가 언급된 부분을 지문에서 빠르게 찾아내야 한다.

● Scanning하여 정보 확인하기

지문을 빠르게 훑어보며 문제의 keyword가 언급된 부분을 찾은 뒤 해당 정보를 확인한다.

Ex **Mule Deer** are active primarily in mornings, evenings and moonlit nights. This **inactivity during the heat of the day is a behavioral adaptation to the desert environment that conserves water and keeps the body temperature** within livable limits. Characteristically, Mule Deer bed down in a cool, secluded place. The mature buck seems to prefer rocky ridges for bedding grounds, while the doe and fawn are more likely to bed down in the open.

Q: According to the passage, **Mule Deer** are **inactive in the middle of the day in order to**

→ 먼저 문제의 keyword인 Mule Deer, inactivity in the middle of the day를 지문에서 찾는다. 이때 in the middle of the day는 지문의 during the heat of the day를 paraphrase한 것이다. 그리고 문제에서 묻고 있는 정보는 in order to에서 알 수 있듯이 Mule deer가 in the middle of the day에 inactive하는 이유이므로 a behavioral adaptation ~ the body temperature라는 것을 알 수 있다.

**Tip** 1. 토플 문제의 경우 대부분이 지문에 언급된 순서대로 문제가 나오기 때문에 앞 문제의 clue 다음 부분부터 scanning을 하면 된다.

2. Scanning 할 때 고유명사나 숫자를 이용하면 훨씬 쉽게 찾을 수 있다.

Which of the following is mentioned as a characteristic of a postcard before 1898?  
핵심어 characteristic of a postcard와 함께 숫자 1898이 언급된 부분을 찾는다.



## 전략 2

지문에서 확인한 정보를 제대로 paraphrase 한 보기를 고른다.

지문에서 정보를 확인한 후에는 그 정보를 제대로 표현하고 있는 보기를 고르면 된다. 다만 보기에는 그 정보가 그대로 나오지 않고 paraphrase 되어 나오기 때문에 제대로 paraphrase 되어 있는지 확인해야 한다.

Ex The ozone depletion process begins when CFCs and other ozone-depleting substances (ODS) leak from equipment. Winds efficiently mix the troposphere and evenly distribute the gases. Since **CFCs are extremely stable**, they do **not even dissolve in rain**. After a period of several years, ODS molecules reach the stratosphere and are broken apart by strong UV (ultraviolet) light.

Q: According to the passage, **CFCs are not soluble in water because**

A: they are fixed to a very great degree

→ 먼저 문제의 keyword인 CFCs, not soluble in water를 지문에서 찾는다. 이때 not soluble in water는 지문의 not even dissolve in rain이 paraphrase 된 것이다. 문제에서 묻고 있는 정보는 because에서 알 수 있듯이 not soluble in water인 이유이므로 since CFCs are extremely stable이라는 것을 알 수 있다.

지문의 정보를 제대로 paraphrase한 보기 찾기

확인한 정보	Paraphrase한 보기
CFCs are extremely stable	they are fixed to a very great degree

지문의 extremely stable이 보기에서는 fixed to a very great degree로 바뀌어 쓰여 있다.

Ex If **aquatic life**, which is susceptible to DDT, **is exposed to the chemical**, **its population would be dramatically reduced**. The entire food chain would be altered, and omnivores and carnivores that consume microorganisms and their predators would in turn suffer from lack of resources.

Q: According to the passage, **when DDT is given**, DDT-sensitive **aquatic life**

A: will become much smaller in number

→ 먼저 문제의 keyword인 DDT is given, aquatic life를 지문에서 찾는다. 이때 DDT is given은 지문의 is exposed to the chemical이 paraphrase 된 것이다. 문제에서 묻고 있는 정보는 when에서 알 수 있듯이 DDT is given일 때의 상황인 것이므로 its population would be dramatically reduced라는 것을 알 수 있다.

지문의 정보를 제대로 paraphrase한 보기 찾기

확인한 정보	Paraphrase한 보기
its population would be dramatically reduced	will become much smaller in number

지문의 its population would be dramatically reduced가 보기에서는 will become much smaller in number로 바뀌어 쓰여 있다.

### 전략 3 보기 중 오답을 확인한다.

최종적으로 나머지 보기들을 검토하여 오답임을 확인한다. Fact의 오답은 주로 지문의 내용과 상반되거나 지문에 언급되지 않은 경우에 해당된다. 단 이러한 오답이 Negative Fact 문제에서는 반대로 정답이 된다.

Ex The population growth rate began to slow in the late 1980s and has continually decreased since then. Although the population growth rate is declining, the population in the world still increases by between 1.3–1.9% per year, according to statistics claimed by the United Nations. A number of factors have contributed to the increase in population in the world, dating all the way back to ancient times when the first agricultural communities arose, creating a capability of sustaining higher numbers of people.

The next major force came in the 18<sup>th</sup> century when **the Industrial Revolution pushed up living standards, resulting in a drop in the famine and epidemics that had plagued in the 14<sup>th</sup>–17<sup>th</sup> centuries, especially in Europe**. The trend continued after World War II, as the populations in developing countries showed rise. Such nations lacked the birth control awareness required to maintain a balanced birth rate. Despite high death rates and rather short life expectancies in comparison with developed countries, **babies were being produced faster than people who were dying. Those high populations were supported economically with food and medical aid from developed nations wanting to lay their stakes for future prospects.**

Q: According to paragraph 2, which of the following is true of developed countries?

A: They took a positive attitude toward the high population growth in developing countries. (○)

→ 지문의 **those high populations were supported economically with food and medical aid from developed nations wanting to lay their stakes for future prospects**를 제대로 paraphrase 하고 있는 보기이다.

지문의 내용과 상반된 오답

Right after World War II, the number of people who passed away was larger than that of people who were born in developing countries. (×)

지문의 **babies were being produced faster than people who were dying**의 내용과 상반된 오답이다.

지문에 언급되지 않은 오답

European countries in the 14<sup>th</sup>–17<sup>th</sup> centuries had taken all possible measures to counteract starvation and epidemics. (×)

지문의 **the Industrial Revolution pushed up living standards, resulting in a drop in the famine and epidemics that had plagued in the 14<sup>th</sup>–17<sup>th</sup> centuries, especially in Europe**에 언급되지 않은 오답이다.

## Hackers Strategy Application

### Fact Question

About one billion years ago, a fracture in the earth running from what is now Oklahoma to Lake Superior generated volcanic activity that almost split North America. Over a period of 20 million years, lava intermittently flowed from the fracture. This geomorphic age created mountains covering the regions now known as northern Wisconsin and Minnesota, and the Laurentian mountains were formed in eastern Canada. Over time these mountains eroded while occasional volcanic activity continued. Molten magma below the highlands of what is now Lake Superior spewed out to its sides, causing the highlands to sink and form a mammoth rock basin that would one day hold Lake Superior. Eventually the fracture stabilized and, over time, the rock tilted down from north to south.

1. According to the passage, the formation of Laurentian mountains is the result of the period
- (A) when volcanoes erupted due to a crevice within North America
  - (B) when North America was nearly split by a severe earthquake
  - (C) when colossal rock beds across North America clustered together
  - (D) when the highlands across North America subsided greatly

### Negative Fact Question

Jane Addams, a member of a well-to-do, cultured family, was so distressed about the misery of the poor that she left home to spend her life in the slums of Chicago. In 1889 she established a "settlement house" there, called Hull House, where she initiated many humanitarian projects. Among these were hot-lunch service for factory workers, day-care centers for little children, and free classes for young people and adults. Immigrants came to Hull House to get advice and help, as well as to learn. Addams also was active in fighting against the use of child labor and worked for woman's suffrage. Not everyone appreciated the work of Jane Addams, though. Indeed some disapproved of what they considered her meddling in other people's affairs. Nevertheless, she exerted great influence on the development of social work in the United States and also in other parts of the world. She promoted the idea of responsibility for the welfare of the underprivileged, and her programs were widely adopted. Settlement houses modeled on Hull House were founded in many poor neighborhoods to help children and adults to make their lives more meaningful. In recognition of her contributions to society, Jane Addams was awarded the Nobel Peace Prize in 1931.

2. According to the passage, which of the following is NOT true of Jane Addams?
- (A) She won a Nobel Prize for Peace in acknowledgment of her devotion to society.
  - (B) She was held in great respect by every single person.
  - (C) She extended education to people without compensation.
  - (D) She was engrossed in improving the quality of children and woman's life.



- 1 전략 1 적용 문제의 keyword인 formation of Laurentian mountains와 result of the period를 지문에서 찾는다. 이때 문제의 formation은 지문의 formed가 paraphrase 된 것이다.

정보 확인하기

a fracture ~ generated volcanic activity, this geomorphic age created ~

전략 2 적용

확인한 정보	Paraphrase한 보기
a fracture ~ generated volcanic activity	when volcanoes erupted due to a crevice within North America

위 지문에서 확인한 정보의 a fracture가 보기에서는 a crevice로, generated volcanic activity가 volcanoes erupted로 paraphrase 되어 있다.

전략 3 적용

- (B) 지진에 관한 내용은 지문에 언급되지 않았다.  
(C) 암반이 밀집되어 있었다는 내용은 지문에 언급되지 않았다.  
(D) 고지대가 가라앉은 것은 산이 생성된 후의 일이므로 지문의 내용과 상반된다.

정답 (A)

- 2 전략 1 적용 문제의 keyword는 Jane Addams인데 지문 전체적으로 Jane Adams가 언급되어 있으므로 보기에서 문제 해결의 단서를 찾아 관련 내용이 지문의 어디에 언급되어 있는지 찾는다.

- (A) 단서 Nobel Prize for Peace → 지문 마지막 문장에 Nobel Peace Prize 언급됨  
(B) 단서 respect by → 지문 7번째 줄에 appreciated 언급됨  
(C) 단서 education → 지문 4번째 줄에 free classes 언급됨  
(D) 단서 children and woman → 지문 6번째 줄에 child, woman 언급됨

전략 2 적용

확인한 정보	Paraphrase한 보기
(A) ~ her contributions to society, Jane Addams was awarded the Nobel Peace Prize	(A) won a Nobel Prize for Peace in acknowledgment of her devotion to society
(C) free classes for ~	(C) extended education to people without compensation
(D) ~ active in fighting against the use of child labor and worked for woman's suffrage	(D) engrossed in improving the quality of children and woman's life

전략 3 적용

- (B)는 지문의 7번째 줄의 not everyone appreciated the work of Jane Addams, though와 다른 내용이다.

정답 (B)

# HACKERS PRACTICE

- Read each passage and answer the corresponding question for each.

1. When the Patent Act was passed in 1790, it included a provision requiring that miniature working models must be produced for every new invention. These patent models – **unique** artifacts of U.S. patent history – were then displayed publicly in the Patent Office. In 1836, the second Patent Act established guidelines for their construction: “The model, not more than 12 inches square, should be neatly made and the name of the inventor should be printed or engraved upon, or affixed to it, in a durable manner.” Unfortunately, two separate Patent Office fires destroyed the majority of these models, as well as all records of early U.S. patent history. In 1880, the model requirement was declared impractical and their construction ended.

- Find the sentence that describes the reason why many early patent models do not exist today.

Answer \_\_\_\_\_

2. The daguerreotype is a direct-positive process of creating a highly detailed image on a sheet of copper plated with a thin coat of silver without the use of a negative. The process required great care. The silver-plated copper sheet first had to be cleaned and polished until the surface **shone** like a mirror. Next, the plate was sensitized in a closed box over iodine until it took on a yellow-rose appearance. The plate, held in a lightproof holder, was then transferred to the camera. After exposure to light, it was developed over hot mercury until an image appeared. To fix the image, the plate was **immersed** in a solution of sodium thiosulfate or salt and then toned with gold chloride.

- Find the sentence that indicates the actions necessary for setting the image as part of the daguerreotype process.

Answer \_\_\_\_\_

## Vocabulary

The word  in the passage is closest in meaning to

- |          |               |                 |               |                 |
|----------|---------------|-----------------|---------------|-----------------|
| 1 unique | (A) cogent    | (B) virtuous    | (C) distinct  | (D) fetching    |
| 2 shone  | (A) blossomed | (B) glossed     | (C) scored    | (D) clashed     |
| immersed | (A) precluded | (B) intensified | (C) submerged | (D) conciliated |

3. Optical fibers, thin transparent fibers that transmit light, are widely used as a medium for telecommunication and networking as they are flexible and can be bundled as cables. Although fibers are usually made out of either transparent plastic or glass, those used in long-distance telecommunications applications are always glass, because of its lower optical absorption. The light transmitted through the fiber is confined due to total internal reflection within the material. This is an important property that eliminates signal crosstalk between fibers within the cable and allows the routing of the cable with twists and turns. In telecommunications applications, the light used is typically infrared light, at wavelengths near to the minimum absorption wavelength of the fiber in use.

- Find the sentence that explains why only fibers made of glass are used for long-range telecommunication.

Answer \_\_\_\_\_

4. The Bebop era, 1944-1955, represents for many the most significant period in jazz history. Some consider it the period when musicians began stressing artistic rather than commercial concerns, put innovation ahead of convention, and looked toward the future instead of paying homage to the past. Others view Bebop as jazz's ultimate dead end, the style that instituted solemnity and elitism within the jazz community, stripped jazz of its connection with dance, and made it impossible for anyone except dedicated collectors, academics, and other musicians to enjoy and appreciate the music. Each assessment contains enough grains of truth to merit closer, more extensive examination, and there have been many studies and dissertations devoted to addressing and evaluating these contentions. However, it is undeniable that jazz changed forever during the Bebop years.

- Find the sentence that suggests a negative view of the Bebop style of jazz.

Answer \_\_\_\_\_

**Vocabulary** The word  in the passage is closest in meaning to

- |               |                 |                 |                 |                |
|---------------|-----------------|-----------------|-----------------|----------------|
| 3 transparent | (A) limpid      | (B) shoddy      | (C) adept       | (D) lopsided   |
| typically     | (A) exceedingly | (B) extensively | (C) potentially | (D) ordinarily |
| 4 homage      | (A) reverence   | (B) vow         | (C) terrain     | (D) anguish    |
| assessment    | (A) attire      | (B) evaluation  | (C) surmise     | (D) blockade   |



5. Trees and other vegetation play an invaluable role in reducing urban air pollution in cities. It was once thought that trees “pollute,” an idea that surfaced in the early 1980s when atmospheric chemists first began measuring emissions from trees. In actuality, “emission” and “pollution” are not synonymous. While it is true that trees and plants, like all living things, emit chemical substances as by-products of their metabolism, these emissions include the oxygen we breathe and the various chemical compounds that give flowers and shrubs their fresh and distinctive smells. It is only in the presence of significant amounts of man-made pollution that some of the many thousands of substances that plants and trees manufacture become participants in the formation of ground-level ozone pollution.

- Find the sentence that indicates the good points of emissions from trees and plants.

Answer \_\_\_\_\_

6. The tradition of portrait miniature painting in America was adapted from European models, particularly from English painting of the Rococo period. Ultimately, portrait miniatures evolved from two sources: illuminated manuscripts of the Middle Ages and portrait medals from classical antiquity as revived during the Italian Renaissance. With various changes in size, shape, and function over time, the first self-contained miniature portraits were made in France and England during the fifteenth century. In the next century, Hans Holbein and Nicholas Hilliard conceived of portraiture in the small, oval format that became prototypical for English and American miniatures. These dainty pieces were mounted in gold locket, brooches, and bracelets, as such converging with traditions of jewelry and taking on connotations as mementos with exquisite and intimate meaning. Patronage for miniatures extended beyond the court to include the political and merchant elite, eager to own and wear such stunning small portraits of loved ones.

- Find the sentence that describes the patrons who would possess portrait miniatures.

Answer \_\_\_\_\_

**Vocabulary** The word        in the passage is closest in meaning to

- |   |            |                 |                 |                 |                 |
|---|------------|-----------------|-----------------|-----------------|-----------------|
| 5 | invaluable | (A) implausible | (B) imaginable  | (C) inestimable | (D) impregnable |
|   | surfaced   | (A) arose       | (B) fraternized | (C) vaporized   | (D) feigned     |
| 6 | dainty     | (A) devoid      | (B) exquisite   | (C) pious       | (D) nauseating  |
|   | eager      | (A) arduous     | (B) nimble      | (C) innominate  | (D) anxious     |

● If the statement for each passage is correct, mark T, otherwise mark F.

7. The most important aspect of post-medieval maps was their increasing accuracy, made possible by continuing exploration. Another significant characteristic was a trend toward artistic and colorful rendition, for the maps still had plenty of space where the artist could indulge his imagination. The cartouche, or title block, became more and more elaborate, amounting to a small work of art. Many of the map editions of this age have become collector's items. The first map printings were made from woodcuts and later engraved on copper, a process that allowed the reproduction of much finer lines. The finished plates were inked and wiped, leaving ink in the cut lines. Dampened paper was then pressed on the plate and into the engraved line work, resulting in extremely fine impressions. The process remained the basis of fine map reproduction until the comparatively recent advent of photolithography.
- \_\_\_\_\_ (A) Cartographical techniques were improved by the collector's enthusiasm for exploration.
- \_\_\_\_\_ (B) Post-medieval maps almost perfectly imitated the actual places they represented.
- \_\_\_\_\_ (C) The copper engraving method better replicated more precise details on maps than did woodcuts.
- \_\_\_\_\_ (D) The completed etchings were pressed into moist paper and the excess ink was brushed off.
8. Porpoises and other marine mammals are better equipped than humans physiologically to dive to considerable depths in the ocean. The blood of these animals has approximately 30 percent higher capacity for oxygen transport and storage than has human blood. They also possess increased stores of respiratory pigment in their muscles which may contribute significantly to their oxygen reserve. The respiratory center in the brain, which regulates breathing movements in all mammals, is driven by carbon dioxide in the surrounding blood. In porpoises and other diving mammals, this center is far less sensitive to carbon dioxide in fluids than in other mammals. Consequently, they can tolerate considerably higher concentrations of carbon dioxide. Moreover, all diving animals, from birds to reptiles to mammals, experience a drastic slowing of the heart rate when diving. In seals, whose normal surface heart rate may be seventy to eighty times a minute, the heart slows to six and ten beats a minute upon diving.
- \_\_\_\_\_ (A) Porpoises and other marine mammals have roughly 30% more oxygen than humans.
- \_\_\_\_\_ (B) Heightened levels of respiratory pigment retained in muscles may help porpoises save oxygen.
- \_\_\_\_\_ (C) Due to decreased responsiveness of their respiratory center to carbon dioxide, porpoises can withstand higher levels of it.
- \_\_\_\_\_ (D) When porpoises venture into lower waters, their heart rate slows down.

**Vocabulary**

The word  in the passage is closest in meaning to

- |             |                |                  |               |              |
|-------------|----------------|------------------|---------------|--------------|
| 7 elaborate | (A) incidental | (B) communicable | (C) intricate | (D) lethal   |
| 8 regulates | (A) fabricates | (B) monitors     | (C) peels     | (D) purloins |
| drastic     | (A) void       | (B) cardinal     | (C) nascent   | (D) radical  |



9. A weather vane, or a wind vane, is a movable device attached to an elevated object such as a roof for indicating the direction of the wind. Very often it is in the shape of cockerels and is called a weathercock. Regardless of the form, the weather vane must be balanced so that half its weight is on either side of its axis, but also designed so that the areas exposed to the wind are unequal. This unequal area makes the vane rotate to minimize the force of the wind on its surface. The design of the vane causes the end with the smallest area to turn into the wind, pointing in the direction from which the wind is blowing. Because winds are named from their source direction, the pointer enables the viewer to name the wind easily. Most simple weather vanes have directional markers beneath the pointer, aligned with the geographic directions. The pointer must be able to move freely on its axis.

- \_\_\_\_\_ (A) Weather vanes are referred to as weathercocks because they often take the form of roosters.
- \_\_\_\_\_ (B) Both sides of the weather vane are proportionately weighted along its axis.
- \_\_\_\_\_ (C) Weather vanes are designed to bear the full force of the wind on their surfaces.
- \_\_\_\_\_ (D) A marker designates the wind direction to which the weather vane points.

10. Below Venus' thick, noxious cloud cover is a planet of deep valleys and massive volcanoes. This was discovered during the Magellan mission, which orbited Venus from 1990 to 1994 and mapped out the planet using radar-imaging equipment. Scientists discovered that the planet has 167 volcanoes larger than 100 kilometers across, and over 50,000 smaller volcanoes. During the Magellan mission there were no volcanic eruptions, which disappointed scientists who were secretly hoping that the planet was geologically active like Earth and still forming. There are no signs of water on Venus, although there may have been millions of years ago. It may have boiled away as the planet got hotter. As the planet warmed up, rivers of water appear to have been replaced by rivers of hot lava. Some scientists believe that, about 200 to 800 million years ago, the entire surface of the planet was reformed when volcanoes erupted all over it and covered its surface in lava. This explains why there are very few craters on the planet's surface, compared with planets like Mercury, which are billions of years old.

- \_\_\_\_\_ (A) Toxic gases from volcanic eruptions made a blanket of clouds over Venus venomous.
- \_\_\_\_\_ (B) By employing certain equipment the Magellan mission succeeded in charting the topography of Venus.
- \_\_\_\_\_ (C) The surface of Venus has been covered by lava since it was first formed.
- \_\_\_\_\_ (D) Because lava has spread over Venus' surface, craters are seldom found on it.

**Vocabulary** The word        in the passage is closest in meaning to

- |              |               |                  |                |                |
|--------------|---------------|------------------|----------------|----------------|
| 9 indicating | (A) signaling | (B) silhouetting | (C) reversing  | (D) rectifying |
| exposed      | (A) lauded    | (B) subjected    | (C) concocted  | (D) hampered   |
| 10 noxious   | (A) elusive   | (B) sturdy       | (C) noisome    | (D) fickle     |
| active       | (A) animated  | (B) infectious   | (C) congenital | (D) illiberal  |



11. The Statue of Liberty arrived in New York Harbor on June 19, 1885. The monument was a gift of friendship from the people of France to the people of the United States, intended to commemorate the centennial of the American Declaration of Independence. Sculptor Frederic-Auguste Bartholdi's *Liberty Enlightening the World* stands more than 300 feet high, and has come to symbolize freedom and democracy to the nation and to the world. The statue was constructed of copper sheets which were assembled on a framework of steel supports designed by Eugene-Emmanuel Viollet-le-Duc and Alexandre-Gustave Eiffel. For transit to America, the figure was dismantled into 350 pieces and packed in 214 crates. Four months later, it was reassembled on Bedloe's Island, which was renamed Liberty Island in 1956. On October 28, 1886, President Grover Cleveland dedicated the Statue of Liberty before thousands of spectators. Since the 1892 opening of the nearby Ellis Island Immigration Station, Bartholdi's *Liberty* has welcomed more than 12,000,000 immigrants to America. Emma Lazarus' famous lines engraved on the statue's pedestal are linked to the conception of the statue Americans call "Lady Liberty."
- \_\_\_\_\_ (A) Since its arrival, the Statue of Liberty has been viewed by many as a symbol of freedom and democracy.
- \_\_\_\_\_ (B) The Statue of Liberty was transferred from France to the United States with its structure intact.
- \_\_\_\_\_ (C) The name of the island on which the Statue of Liberty stands was changed to Liberty Island after the statue arrived there.
- \_\_\_\_\_ (D) Thousands of tourists visit to Ellis Island each year to view the historic symbol of the amicable relations between France and America.
12. When a log had been selected and brought to the village, it would be laid horizontally on the beach and a carver and his assistants would strip the bark and adze away the sapwood. While the individual commissioning the pole would request certain figures, indicating their order on the pole, it was up to the carver to create the actual design and representation. The design was drawn on in charcoal and then worked with a variety of tools to produce relief figures that would then be painted. Traditional pigments were made by grinding minerals and then mixing the powder with salmon eggs. Once the pole was complete, it would be raised to an upright position in a special ceremony. A large hole was excavated and the base of the pole was placed in the hole. Some people, then, pulled on ropes while others pushed with long poles, until the totem was fully upright. The meaning of the images and their stories were related to everyone attending the ceremony and the raising of the pole was followed with feasting.
- \_\_\_\_\_ (A) Illustrations and their placement on the pole were to some degree at the discretion of the carver.
- \_\_\_\_\_ (B) Figures that stood out from their background on the log were to be colored.
- \_\_\_\_\_ (C) A mixture of materials obtained from natural surroundings was used to make pigments.
- \_\_\_\_\_ (D) The carver explained the significance of the images through storytelling.

**Vocabulary** The word        in the passage is closest in meaning to

- |                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|
| 11 commemorate | (A) enfeeble   | (B) venerate   | (C) thrash     | (D) observe    |
| transit        | (A) jolt       | (B) conveyance | (C) lease      | (D) contraband |
| 12 upright     | (A) economical | (B) essential  | (C) antiseptic | (D) erect      |

13. The formation of sand dunes in deserts has often been used as an indicator of paleoclimate, with dune forming phases equated with periods of aridity. The inferred link between regional aridity and desert sand dunes is a common one, strengthened by the visual impact of sand dunes located in hot, dry conditions. However, many desert environments contain evidence of past wetter conditions in which lakes filled many desert basins (e.g. the Sahara and Namib Deserts of Africa to the deserts of the American southwest). The application of luminescence dating techniques to determine the timing of sand dune formation in the Mojave Desert of California, has shown that 94% of all dated sand was deposited at times when **pluvial** lakes occupied many desert basins and floods were recorded in Arizona and Utah rivers. The climate change can trigger a supply of sediment for entrainment via surface runoff, floods, and reworking of surface material down sand transport corridors and subsequent **accretion** on sand dunes. Comparison with current El Niño events supports the **assertion** that, in a supply-limited system, storm events associated with the climate change are the controlling factor for periods of sand dunes formation in desert areas of the southwestern USA. Rather than aridity, the sand dunes in these areas may provide a high resolution record of paleostorm frequency.

- 1 According to the passage, the connection between lack of precipitation and sand dune formation is supported in general because
- (A) the climate in which sand dunes are found is moderate
  - (B) sand dunes are situated in parched, scorching locales
  - (C) sand dunes are eroded by constant desert winds
  - (D) sand dunes do not appear in damp areas
- 2 According to the passage, the use of luminescence methods to date the sand dunes in the Mojave Desert suggests that
- (A) all of the initial deposits had been worn away because of surface runoff
  - (B) the sand sediment was host to a variety of desert organisms
  - (C) they had an adverse impact on their surroundings while taking shape
  - (D) most of the sand in that area was accumulated during times of rainfall

**Vocabulary** The word    in the passage is closest in meaning to

- |            |                |                 |                  |                |
|------------|----------------|-----------------|------------------|----------------|
| 13 pluvial | (A) invincible | (B) rainy       | (C) parched      | (D) bare       |
| accretion  | (A) demeanor   | (B) constituent | (C) accumulation | (D) acme       |
| assertion  | (A) claim      | (B) continence  | (C) treason      | (D) turbulence |



14. Social psychologist Solomon Asch demonstrated group **conformity** by arranging an experimental setting in which the subject was provided with a designated time to arrive at the laboratory. The experimental room had in it a long table at which a number of young men were seated, all facing in the same direction. These individuals were all **confederates** who pretended to be subjects but were actually working for Asch, while the one true subject was told to arrive late as a ploy to get him seated at the far left. It was to make sure that he would hear the confederates' replies. Once the real subject was seated, all the men were asked to observe a line that had been printed on a poster board, and then, three comparison lines of differing lengths and make a judgment about which comparison line matched the original. After making a choice, each person was required to say out loud which line he thought was correct. As the experiment progressed, all the confederates deliberately began making the same wrong comparisons and across 12 trials 76% of subjects went along with the group and gave an obviously incorrect response at least once. When asked to provide their answers by means of a secret ballot, subjects did not conform to the group, demonstrating that they in fact knew the responses. When one confederate in the group went against the majority and gave the correct answer, so did the real subject more frequently. Asch believed these results indicated that people do not **blindly** follow crowds, but rather rationally weigh the amount of disapproval they expect to face.

- 1 According to the passage, the real subject was placed on the far left
- (A) to ensure he knew the answers of the confederates
  - (B) to obstruct his view of the front of the boardroom
  - (C) to make certain he was the last to view the line
  - (D) to allow him to see the rest of the confederates
- 2 According to the passage, when the test subjects were allowed to give their answers in private
- (A) they took longer to answer the question
  - (B) they changed their original answers
  - (C) they didn't follow the confederates' answers
  - (D) they refused to answer the question

**Vocabulary** The word  in the passage is closest in meaning to

- |               |                  |                 |                |                 |
|---------------|------------------|-----------------|----------------|-----------------|
| 14 conformity | (A) acclamation  | (B) respite     | (C) pretense   | (D) compliance  |
| confederates  | (A) artisans     | (B) accomplices | (C) diplomats  | (D) smiths      |
| blindly       | (A) courageously | (B) abruptly    | (C) recklessly | (D) equivocally |



15. An earthworm travels underground by means of waves of muscular contractions which alternately shorten and lengthen the body. The shortened part is **anchored** to the surrounding soil by tiny claw-like bristles – setae – set along its segmented length. The whole process is **aided** by the secretion of a slimy lubricating mucous. In more compacted soils the earthworm actually eats its way through the soil, cutting a passage with its muscular pharynx and dragging the rest of the body along. The ingested soil is ground up and digested, and the waste deposits behind the worm. This process aerates and mixes the soil, and is often considered greatly helpful by gardeners and farmers. In addition, many earthworms will come to the surface and graze on the higher concentrations of organic matter there, mixing it with the mineral soil. Because a high level of organic matter is associated with soil fertility, an abundance of earthworms is a happy sight for the organic gardener. In fact as long ago as 1881 Charles Darwin wrote: *"It may be doubted whether there are any other animals which have played so important a part in the history of the world, as have these lowly creatures."* Indeed, it is probably not much of an exaggeration to state that the **humble** earthworm is one of the most vital living creatures on the planet, for its actions are essential for creation and vitality of soil, upon which almost all land plants and animals depend.

1 According to the passage, earthworms are regarded as beneficial by gardeners and farmers because

- (A) they bring organic matters in depth to the soil surface
- (B) their waste minimizes the need for artificial fertilizer
- (C) they ventilate and blend the soil during the ingestion process
- (D) they lubricate the soil so that other organisms can move smoothly

2 According to the passage, where earthworms and organic matter are plentiful

- (A) the plant growth in the area is hampered
- (B) the ground in the area requires less nutrients
- (C) earth animals in the area multiply prolifically
- (D) the soil of the area is highly productive

**Vocabulary** The word   in the passage is closest in meaning to

- |             |                 |                |              |              |
|-------------|-----------------|----------------|--------------|--------------|
| 15 anchored | (A) secured     | (B) codified   | (C) eschewed | (D) inflamed |
| aided       | (A) disinterred | (B) furthered  | (C) lashed   | (D) scaled   |
| humble      | (A) heedful     | (B) gluttonous | (C) obscure  | (D) salutary |

16. The earliest commissions for public monuments in the United States date to the late eighteenth century and were completed by foreign artists: for instance, French sculptor Jean-Antoine Houdon created a full-size marble statue of George Washington for the State Capitol at Richmond, Virginia, based on studies from his life. During the early decades of the nineteenth century, Americans who patronized sculptors for outdoor portraits most frequently awarded commissions to Europeans. These artists brought from abroad the Neoclassical aesthetic that native sculptors strove to emulate through the mid-nineteenth century.

Throughout the ages, public sculptures have served as didactic tools, offering moral, patriotic, and cultural instruction. Symbols of pride, they have proclaimed cities as tastemakers in civic and aesthetic matters. Urban centers such as New York, Philadelphia, Washington, D.C., and Richmond aspired to have such monuments, engaging in public fund-raising efforts and commissioning American sculptors based both at home and abroad. One of the first successful efforts was Henry Kirke Brown's equestrian statue of George Washington, paid for by a group of shipping merchants and dedicated in New York's Union Square in 1856.

The years between the Civil War and World War I represent the great age of American civic sculpture in bronze. The Civil War created an increased demand in both the North and South for public sculpture commemorating military heroism and sacrifice, from common soldier to admiral to general. This movement lasted for several decades, with major sculptors such as John Quincy Adams Ward and Augustus Saint-Gaudens producing monuments of stirring impact addressing war, slavery, and Reconstruction themes. Concurrently, immigrant citizen groups, inspired by ethnic pride, also funded monuments in urban spaces to recognize the accomplishments of individuals from their homelands. Most of these monuments were produced in bronze, in a Beaux-Arts aesthetic that emphasized naturalism and dynamic treatment of form and surface.

- 1 According to the passage, which of the following is true of public monuments in the United States?
- (A) They were designed by artists from abroad in the late 1700s.
  - (B) They were symbolic of friendly relations with France.
  - (C) They were mostly requested by the government.
  - (D) They were scaled-down likenesses of their actual subjects.
- 2 According to the passage, public statues were turned out in vast quantities during the Civil War because
- (A) a nationwide fund-raising campaign for these statues reached an all-time high
  - (B) these statues were representations of honor for heroic deeds and selflessness in action
  - (C) European countries rendered economic aid to the United States to produce the statues
  - (D) the government intended to infuse patriotism into the hearts of immigrants for their new homeland

**Vocabulary** The word  in the passage is closest in meaning to

- |              |                   |                 |               |             |
|--------------|-------------------|-----------------|---------------|-------------|
| 16 emulate   | (A) dissect       | (B) irritate    | (C) proscribe | (D) mimic   |
| lasted       | (A) persisted     | (B) capitulated | (C) deferred  | (D) faded   |
| Concurrently | (A) Concomitantly | (B) Singularly  | (C) Casually  | (D) Utterly |

정답 p.397



## [1] The Automobile Boom

- 1 ➡ During the early 1900s, companies rushed to implement large-volume output technology, including a rapid changeover to a new manufacturing process designed to produce massive quantities of identical high-quality goods at a low cost per unit. As such, the stages of assembly were standardized, utilizing precision-made, interchangeable parts and factories carefully reorganized to allow the flow of raw materials through a set of sequential steps. These innovations caused great advancement in the American automobile industry in particular, most notably by carmaker Henry Ford. His business strategies with underlying mass production philosophy prompted an automobile boom, elevating the entire country into an economic upswing.
- 2 <sup>3</sup>Originally, Ford's company was staffed with professional engineers who were trained in every aspect of building internal combustion engines and designing the framework for the vehicles, and thus, the office was based on stationary production points wherein assistants would carry necessary parts for each car. Ford's implementation of an assembly line, however, broke the manufacturing up into a lot of small steps; employees stood side-by-side, concentrating on their individual task, as the materials rolled along a conveyor belt. The amount of training needed to carry out only one job, as opposed to many, was minimal, and the company was able to replace highly skilled employees with men who were unskilled or semi-skilled and therefore inexpensive to employ. In addition to saving him money on payroll, the transition also reduced the manufacturing time by assigning easily perfected repetitive chores. Together, these two changes resulted in a startling increase in productivity without compromising quality.
- 3 ➡ On the whole, the new manufacturing methods dramatically modified the organization of the workplace, altering the concept of the American factory environment. Whereas the previous industrial model ensured that engineers had interesting whole projects to work on, as well as continued education, an assembly line demanded a minute division of labor, each person performing a single tedious task. Laborers quickly became bored of their jobs and lost interest, threatening to bring down the value of their end products. Ford, realizing that his new factory necessitated a strict monitoring of employee output to assure quality and quantity were maintained, established a hierarchical system of supervisors to maintain productivity at peak output levels, and encouraged the many professionals who had initially lost their engineering jobs to join the higher ranks of the now rigid and controlled company structure.
- 4 The triumph of the Ford plant had a revolutionary effect on the collective industry as well as inspiring newer peripheral industries to develop in order to accommodate increased automobile production. After all, assembly lines required raw materials for input, so steel mills, glass factories, and metal foundries sprang up in clusters close to huge manufacturing plants. <sup>7</sup>At the same time, machine tool and die makers who provided all the



precision parts and mechanical devices for the factory infrastructure flourished as technology continued to improve, the offshoots of which reared a range of new and exciting careers, particularly of interest to the large groups of young men returning from military duty around this time, and kept unemployment rates down while boosting overall spending. In the end, this booming economy together with better automation allowed Ford to drop his selling price from about \$850 in 1908 to less than \$300 in 1925, at which time sales figures skyrocketed as average customers could now afford to purchase a vehicle, feeding back into the overall health of companies that were involved with car making.

- 5 The mounting popularity of personal transportation ultimately had repercussions on the cities and countryside as they rapidly changed to make room for the astounding increase in cars. Dirt roads were replaced with paved streets and freeways while urban developers hurried to design gutters, curbs, traffic signs, and other infrastructure that was previously unnecessary. <sup>9</sup>Leisure time now circled around car ownership, bringing forth entertainment venues such as the drive-in theater or touring on newly constructed highways with accompanying gas stations, rest stops, billboards, and even motels to lodge weary travelers along the way. The entire cultural landscape was altered to focus on driving and the needs of the automobile consumer, the impact of which has had major reverberations on the economic survival of the country.

1. The word *implement* in the passage is closest in meaning to
  - (A) perform
  - (B) rescind
  - (C) retool
  - (D) cleave
2. Which of the following is true of the automobile industry in America in paragraph 1?
  - (A) Advanced business strategies resulted in a need for fewer factories.
  - (B) A large increase in quality was achieved with a reduction in costs.
  - (C) An automobile boom originated from the process of mass production.
  - (D) The increased inflow of raw materials lowered the cost of automobiles.

Paragraph 1 is marked with an arrow [➡].

3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The initial factory was laid out with each car being constructed in a designated area by workers drilled in all facets of the task.
  - (B) Because of the static production facility, Ford hired people with necessary skills to complete all aspects of the car construction.
  - (C) The manufacturing process required that all the vehicles be assembled by the same workers, who would transport the parts to numerous stations.
  - (D) Ford's first company was dependent on individual workers who were capable of completing the whole manufacturing process.
4. According to the passage, the introduction of an assembly line brought about all of the following EXCEPT
- (A) a reduction in the time needed to produce goods
  - (B) a period of working hours that was shortened
  - (C) a manufacturing process with many small stages
  - (D) a decrease in the personnel expenses
5. The word tedious in the passage is closest in meaning to
- (A) base
  - (B) reflective
  - (C) tiresome
  - (D) brief
6. According to paragraph 3, Henry Ford adopted a supervisor system in order to
- (A) provide employment for skilled engineers who lost their jobs
  - (B) keep the output and caliber of merchandise high
  - (C) educate and train workers for minute tasks
  - (D) elevate the status of professionals in the company

Paragraph 3 is marked with an arrow [➡].

7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Young men returning from military duty gained employment in technological fields, including machine tool and die making.
  - (B) The new careers generated by the automobile industry led to an increase in spending by the general population.
  - (C) The automation process gave rise to a number of new industries that contributed significantly to the economy.
  - (D) Industries which supported the automobile plant infrastructure thrived, providing a steady source of jobs.

8. The word *average* in the passage is closest in meaning to
- (A) indignant
  - (B) critical
  - (C) mean
  - (D) meek
9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The dramatic expansion of the transportation network ensured that the new entertainment facilities had easy access to drivers.
  - (B) Many new businesses cropped up in order to accommodate the new population whose recreation activities revolved around their cars.
  - (C) The increase in the number of privately-owned vehicles resulted in the expansion of the tertiary sector of the economy.
  - (D) The increasing focus on cars led to the development of many new and profitable service industries along the highways.
10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The automobile boom in America uplifted the economy substantially.**

Answer Choices

- |   |   |
|---|---|
| (A) Ford used professional engineers to make sure the high quality of his product.                | (D) The increased use of private automobile caused related business sectors to be developed.          |
| (B) Mass production methods significantly decreased the cost of new automobiles in the mid 1920s. | (E) The need for superintendence led to the institution of a hierarchy in factories.                  |
| (C) Ford's use of the assembly line greatly improved productivity in the workplace.               | (F) The application of the assembly line had a major effect on the layout and structure of factories. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.403



## [2] Skyscrapers

- 1 Rapid industrialization in the late 1800s centralized businesses into urban centers suddenly dense with teeming masses of rural migrants attracted by the economic boom of the time. Although real estate prices skyrocketed, demand outpaced supply – a conundrum solved by maximizing limited spaces with the novel concept of vertically-designed buildings, thus granting developers the luxury of squeezing huge amounts of income out of relatively small pieces of land.
- 2 ➡ In the beginning, the construction of tall buildings was limited to certain heights because most of the technologies needed to accommodate taller ones simply did not exist. First, early elevator systems were clumsy, so the idea of running up and down dozens of flights of stairs on a daily basis seemed like lunacy. Next, water pressure potency at the time could only pump water to heights of about 50 feet, making high-rise plumbing facilities a pipe dream. Finally, limited awareness about the importance of structural support beams meant that most early models were entirely supported by a thick base of solid brick, load-bearing walls. In a four or five story erection, this required ground floors to be comprised of disproportionately thick walls with minimal usable space.
- 3 ➡ This changed with the advent of a low-cost system to mass-produce steel – dubbed the “Bessemer process” after its British developer – that gave architects the freedom to design taller structures with thinner walls buttressed by lightweight support skeletons, making brick bases and cast iron materials wholly redundant. In 1883, the 10-story Home Insurance Building in Chicago – widely considered America’s first genuine skyscraper – premiered Bessemer’s ingenuity with a frame consisting of vertical steel columns and horizontal beams that provided far more structural integrity than the conventional slab base, yet at only one-third the weight. Functionally, this internal scaffolding meant that exterior walls no longer had to provide intrinsic abutment, allowing for the aesthetically-pleasing addition of windows. As a testament to the brilliance of this design, the fundamentals of its steel cage entrails are still widely used.
- 4 ➡ Once steel became cheaper to produce, it was used in combination with another building material – concrete – to bring about even taller skyscrapers. Architects and engineers had long favored concrete because it had high resistance to fire and was capable of shutting off sound, but, since it would easily crack, it was used only to build warehouses, factories, or other low-rise buildings. However, with the latest discovery, engineers could reinforce concrete by incorporating steel bars into the mixture. In 1903, the construction of the Ingalls Building used this compound, and it proved to be an ideal compromise between steel’s tendency to melt at high temperatures and concrete’s to snap (rather than bend) under severe pressure. Solid concrete smothered an internal network of twisted steel bars to raise a massive edifice fifteen stories high, leading media locals to speculate that it would collapse as soon as its outer construction supports were taken out; to their disappointment, the building remained intact. It was designated a National Historical Civil Engineering Landmark in 1974, and still stands to this very day.
- 5 ➡ Though considered a huge success at the time, even this architectural feat was

somewhat diminished by the fact that fifteen stories are not of much use without some kind of transportation system to traverse from floor to floor. Thus, perfection of a reliable elevator system became something of a Holy Grail among architecture enthusiasts. Steam and hydraulic systems had been in use since 1850, but were known to be slow, loud, and hard to control. Then in 1903, the Otis Elevator Company developed a high-speed, gearless electrical contraption that was based on a relatively simple design similar to a pulley lowering a bucket on a rope into a well. It utilized an electric device with a grooved wheel, over which a cable was looped, with one end attached to the elevator and the other to a counterweight. Once it was proven feasible in the 49-story Tower Building in New York City, buildings of any height became possible.

- 6 Today, the astonishing evolution in skyscraper building is still progressing. Currently, the Taipei 101 in Taiwan, reaching an amazing 1,670 feet, is the world's tallest, although its title as the "world's tallest" will certainly not last, given that architects and engineers continue to experiment with new building techniques and styles.

1. The word novel in the passage is closest in meaning to
  - (A) marked
  - (B) solemn
  - (C) tetchy
  - (D) innovative
2. According to paragraph 2, which of the following was NOT a technological limitation for the construction of tall buildings?
  - (A) Too much support on lower levels limited the accessible areas.
  - (B) There was a great need for a number of flights of stairs.
  - (C) Devices that could carry people up and down were inefficient.
  - (D) Pumps were unable to supply higher floors with plumbing.

Paragraph 2 is marked with an arrow [➡].

3. The word redundant in the passage is closest in meaning to
  - (A) fruitful
  - (B) unnecessary
  - (C) august
  - (D) inconceivable

4. The word genuine in the passage is closest in meaning to
- (A) bona fide
  - (B) splendid
  - (C) inceptive
  - (D) manageable
5. According to paragraph 3, which of the following is true of the Home Insurance Building in Chicago?
- (A) Its internal structure made it no taller than 10 stories.
  - (B) The beams built into structure carried the majority of its weight.
  - (C) The inner walls were designed to sustain the building's frame.
  - (D) It was constructed with lightweight steel frame.

Paragraph 3 is marked with an arrow [➡].

6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Although construction workers made efforts to use concrete in erecting buildings, it enjoyed only limited success as a building material.
  - (B) As concrete would often crack, it was not a suitable material for the construction of important industrial buildings, in spite of its many advantages.
  - (C) Although concrete was popular for its fireproof qualities and the ability to muffle sound, it was not widely used because of its brittleness.
  - (D) Despite its tendency to snap, concrete was an obvious choice for a variety of low-rise buildings because it could withstand fire and shut out sound.
7. The phrase taken out in the passage is closest in meaning to
- (A) scrutinized
  - (B) removed
  - (C) scraped
  - (D) invigorated
8. According to paragraph 4, all of the following are true of the combination of concrete and steel EXCEPT
- (A) the building constructed with this method still exists today
  - (B) the method complemented the drawbacks of each steel and concrete
  - (C) journalists were skeptical about the building using this method
  - (D) architects longed to erect a building by this method for long

Paragraph 4 is marked with an arrow [➡].



9. According to paragraph 5, which of the following is true of the Otis elevator?

- (A) It was a plain device with gears.
- (B) It was modeled on a pulley.
- (C) It was controlled with electricity.
- (D) It required a heavy counterweight.

Paragraph 5 is marked with an arrow [➡].

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**As technology advanced, construction began to focus upwards.**

- 
- 
-

Answer Choices

- |   |  |
|---|--|
| (A) The need for taller buildings grew out of the centralization of the people in urban areas.  | (D) Once efficient and dependable elevators were developed, they removed obstacles for making buildings higher.      |
| (B) The Ingalls Building was the first to use the reinforced concrete for its construction.     | (E) The tallest building is now in Taiwan but will most likely be supplanted by newer one in the foreseeable future. |
| (C) Reinforcing concrete with steel gave architects a good opportunity to raise tall buildings. | (F) Steel frameworks provided much greater support than other types of foundations.                                  |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.404

### [3] Loie Fuller

- 1 Born in the Chicago suburb of Fullersburg, Illinois, Marie Louise Fuller began her theatrical career as a child actress when she made her debut in Chicago at the age of four. For 25 years hence, she toured the American countryside with various stock companies\*, performing burlesque and vaudeville as well as taking part in the famous Buffalo Bill's Wild West Show. Although she was at one time criticized for her lack of technique because she possessed no formal training in choreography, she honed her skill through experimentation and by observing other modern dance pioneers of the era. By 1888, her grandiose 'natural movement' performances had earned her modest success in New York and London, where she shared the stage with several well-known actors and actresses who encouraged her to adopt the pseudonym Loie Fuller that would later become a household name.
- 2 ➡ What brought her fame was her way of manipulating voluminous folds of silk while having beams of colored light play upon them. While preparing to star in the melodrama called "Quack, M.D." in which she would portray a woman under hypnosis, she began experimenting with technical effects that would light her skirt, giving it the appearance of voluminosity and ethereal splendor by enhancing the theater's lighting. Rumored to be inspired by Chinese paper lanterns, she came up with the idea of placing strips of colored silk over the aperture of each lighting fixture, including spotlights and floodlights, in the path of light to create a wash of pigmented glow across the stage. In order to direct the beams in certain directions, mirrors, which could reflect the rays in desired directions, were strategically placed in the wings, bouncing multicolored lights off the performer's attire.
- 3 Spurred by this new technological wizardry, Fuller, who frequently sewed her own costumes, started to test the effects of reflective materials on clothing. She eventually incorporated strips of translucent silk with reflective properties into her long flowing skirts, producing an effect that made her look like an apparition or ghost. This moved critics to dub her the most innovative dancer of her day. She was emboldened by the positive reviews and searched for new ways to manipulate the combination of color and costume in order to evoke a particular mood, aim focus at a certain character, or alter the perception of time and location of the performance. One way to elicit a response was to piece phosphorescent material into her clothes that would exploit any light that struck its surface, bending the rays into dynamic hues.
- 4 Realizing her mechanical novelties were a breakthrough, Fuller filed and was awarded several US patents for her inventions, while continuing to work on new designs. She even approached her friend, the chemist and radiation pioneer Marie Curie, for advice on how to incorporate radium into the theater, but Curie quickly turned her down, warning that the element was far too risky for general use. Undaunted, she continued her own experiments with chemical salts, one that resulted in an explosion in her homemade laboratory. She was unharmed, but swiftly turned her attention to choreographing a new dance that would highlight the advancements that she had made in the field of stage lighting and costuming.
- 5 Gradually, Fuller's innovative techniques evolved into a performance she called 'The Serpentine Dance,' and in February 1892, at the revue "Uncle Celestin" in New York, she

presented her free dance routine to considerable acclaim. The show traveled to Paris, receiving a warm reception that persuaded her to remain in France to become a regular entertainer at the Folies Bergere, the premiere international venue for experimental performances. Here, Fuller, the first modern dancer to perform in Europe, headlined numerous shows, most significantly 'Fire Dance,' in which she danced on glass illuminated from below. At a time when the Art Nouveau movement was all the rage, she burst upon the scene as its living embodiment and garnered the respect of many French artists such as Henri de Toulouse-Lautrec, who painted many of her promotional posters, and Auguste Rodin, who later used Fuller as a model for his sculptures. Scientists also flocked to Paris to witness firsthand the avant-garde lighting designs. By 1908, when she opened her own natural movement school, the European community, and to some extent her American compatriots, had accepted free dance, in which her inventions and talent coalesced as a serious art form.

Glossary
stock companies: a theatrical company that performs plays from a repertoire

1. According to the passage, which of the following statements regarding the early career of Loie Fuller is true?
  - (A) Fuller was inspired by the progressive approach utilized in the Wild West Show.
  - (B) Fuller received tribute for her natural style of dance and her technical proficiency.
  - (C) Fuller played her first important theatrical role in a production in New York City.
  - (D) Fuller compensated for deficiencies in her education by studying innovative dancers.
2. The word inspired in the passage is closest in meaning to
  - (A) motivated
  - (B) recalled
  - (C) deported
  - (D) detached
3. According to paragraph 2, the color of the stage lights
  - (A) was similar to the color of lights from Chinese paper lanterns
  - (B) could be changed into other colors by covering them with fabric
  - (C) was altered depending on the direction of the path of light
  - (D) could be partially caused by the mirrors used to reflect them

Paragraph 2 is marked with an arrow [➡].



4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) After looking for ways to get affirmative reviews, Fuller decided to work on the light and costumes to evoke changes in the audience.
  - (B) Encouraged by favorable feedback, Fuller looked for more techniques to control the impression made by her performances.
  - (C) Fuller was promoted to experiment with stage lighting and attire to strengthen the quality of her dance routine.
  - (D) After getting good responses, Fuller sought new methods of mixing color and clothing to achieve certain effects on the audience.
5. The word **risky** in the passage is closest in meaning to
- (A) undaunted
  - (B) hazardous
  - (C) rash
  - (D) extant
6. According to the passage, Fuller abandoned her laboratory experiments to choreograph a new dance because
- (A) she was cautioned that radioactive materials were too hazardous
  - (B) she was able to further develop her stagecraft innovations while dancing
  - (C) she caused a detonation during her experiments with chemical salts
  - (D) she had already been granted several patents for her discoveries
7. The word **regular** in the passage is closest in meaning to
- (A) routine
  - (B) reverent
  - (C) nosy
  - (D) boisterous
8. According to the passage, the spirit of Art Nouveau
- (A) was widespread in the 18<sup>th</sup> century
  - (B) was embraced by American artists
  - (C) was represented in Fuller's dance
  - (D) was an intrinsic part of modern dance

9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Loie Fuller started from unremarkable beginnings to become a world-renowned dancer.**

Answer Choices

- |  |   |
|--|---|
| (A) Loie Fuller's first starring role was in a melodrama entitled, "Quack, M.D." in which she acted as a patient.              | (D) Loie Fuller tried to have desired effect which was accomplished by creating various hues from reflective fabrics. |
| (B) Although Loie Fuller won recognition from the general public and critics, she was disregarded by her contemporary artists. | (E) Fuller started her own dance school in Paris, following the tradition of natural movement.                        |
| (C) With her revolutionary techniques, Loie Fuller introduced a free dance style that created a sensation.                     | (F) Loie Fuller was well remembered for her experiments in which colored light was reflected off her clothes.         |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.406

#### [4] The Crisis of the Third Century

- 1 The Crisis of the Third Century, also known as the “Military Anarchy” or the “Imperial Crisis,” is the term conventionally applied to the years following the murder of the emperor Alexander Severus in 234 A.D. by a group of anarchistic soldiers and the consequential near collapse of the Roman Empire between 235 A.D. and 284 A.D. During this roughly half-century period, the mismanagement of armies in combination with two subsequent crises encroached on Rome’s hegemony and, ultimately, the viability of the empire and its ability to maintain control over its vast territory came into serious question.
- 2 ➡ The strength of the Roman Empire rested almost entirely on the ruling government to manage the legions of armies and navies necessary to conquer new territory and protect the regions already under control. For this reason, military service had traditionally been mandatory for citizens, the period of enlistment ranging anywhere from two years to twenty-five years, depending on external war activity. However, as the military entered more and more foreign regions, patrol of the immense border became a difficult task that stretched human resources and prompted emperors to hire freelancers\*, usually from Germany, who would be paid a reasonable salary and offered land in return for their sworn allegiance to Rome. The freelancers, who were satisfied with the situation in the beginning, quickly became restless when the frequency of raids by violent invaders escalated and demanded higher wages and more benefits for their loyalty. Their salaries were initially doubled, but after the assassination of Severus, who had dramatically enlarged the forces, successive rulers were often unable to meet both the demands of the hired military and civilian legions. When payments became delinquent, thousands of guards deserted their posts and at times, orchestrated mutinies that left areas along the border vulnerable to attacks from the west by Carpians, Goths, Vandals, and Alamanni, as well as invasions from the east.
- 3 ➡ Persistent battles continued to plague the fringes of the empire, forcing the legions to retreat to the Italian center in Rome, which, due to ongoing squabbles over leadership between competing candidates, was faced with its own internal trauma. Civil war erupted, and because clearly defined laws of ascension were never established, competing factions in the military, the Senate, and other parties, all vying for the right to succeed the fallen emperor Severus, put forward their favored candidate for Emperor. Fierce clambering triggered a high turnover within the political hierarchy; a ruler would emerge, usually a prominent general, but would fail to achieve long-term leadership, losing his position within two to three years through a coup d’etat or by assassination. During the Crisis period, as many as 25 different emperors sat in Rome, each attempting to restore control over territories while managing the precarious balance between civilian and governmental groups.
- 4 Some emperors hoped that by pledging better conditions and bonuses to soldiers, allegiance would be assured, but with finances dwindling, many chose to simply devalue the currency by minting more coins with less valuable metal instead of withdrawing support. The consequences of this poor planning were felt immediately in the trade network as hyperinflation almost broke down the Roman economy. The currency in its new



manifestation was no longer valuable, forcing merchants to resort to a system of bartering. In the absence of a dependable monetary exchange system, the empire was no longer able to supply the civilian military with food and shelter without compromising its ability to send rations out to the salaried armies at the borders, causing many to leave their posts and seek more profitable work. In turn, the roads, which connected Rome with essential Mediterranean ports, were left unguarded and historically safe routes between Italy and outlying territories were now threatened by uncontrolled raids by rogue bandits and other inhabitants in desperate need of goods. The disappearance of the trade network compelled landowners, traditionally the suppliers of agricultural products, to cease harvesting for export and turn to harvesting for subsistence and local markets. By the middle of the third century, the demographics of the empire was forever changed by the waning of the middle class as many citizens moved out into smaller walled communities looking for food and protection, setting up the early model for the medieval feudal states.

Glossary
freelancers : a mercenary who provides military services to an army in exchange for a salary

1. According to paragraph 2, which of the following is true of the compulsory military service?
  - (A) With the hiring of mercenaries, it became unnecessary for citizens.
  - (B) People from conquered lands were obliged to serve in it.
  - (C) The term of service varied according to the state of foreign relations.
  - (D) The severity of its training was resented by many citizens.

Paragraph 2 is marked with an arrow [➡].

2. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Roman rulers were driven to hire professional soldiers by the need to police the Empire's borders.
  - (B) The need for defense of the frontier required that the emperors increase wages to draw more freelancers into service.
  - (C) The rulers began to employ salaried soldiers since the size of the territory made the edges vulnerable.
  - (D) As the Roman military expanded, an increasing number of foreign mercenaries were recruited into it.

3. The word deserted in the passage is closest in meaning to
- (A) forsook
  - (B) set up
  - (C) harassed
  - (D) capitalized on
4. The word Persistent in the passage is closest in meaning to
- (A) Consummate
  - (B) Superfluous
  - (C) Gruesome
  - (D) Perennial
5. The word precarious in the passage is closest in meaning to
- (A) predictive
  - (B) insecure
  - (C) preordained
  - (D) unshakable
6. According to paragraph 3, there were so many contenders for emperor after the death of Severus because
- (A) the military kept on overthrowing the emperors it detested
  - (B) the right of succession had never been definitively established
  - (C) the Senate objected to the new emperor proposed by the army
  - (D) the successor to the throne was assassinated before ascending the throne
- Paragraph 3 is marked with an arrow [➡].
7. According to the passage, traders began to turn to bartering when
- (A) export to other countries was blocked
  - (B) metal to mint coins ran short
  - (C) the value of money was debased
  - (D) the trade routes were severed
8. The word dependable in the passage is closest in meaning to
- (A) reluctant
  - (B) seething
  - (C) widespread
  - (D) reliable

9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The Crisis of the Third Century, the combination of several crises, dealt a serious blow to the power and subsistence of Rome.**

- 
- 
- 

Answer Choices

- |   |  |
|---|--|
| (A) Constant internal power struggles ensured no continuity in governance.                                  | (D) The skirmishes at the edges forced the military to return to the capital which was in turmoil. |
| (B) At the end of the third century, communities which tended to be isolated and self-sufficient appeared.  | (E) High inflation and downfall of trade network weakened the economic strength of the empire.     |
| (C) The borders were left unprotected and subjected to increasing incursions when the troops disintegrated. | (F) Emperors were too obsessed with the use of the supreme power to care for the economy.          |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

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## CHAPTER 03 | Vocabulary

### Overview

Vocabulary 문제는 주어진 어휘의 의미와 가장 가까운 뜻을 가진 어휘를 선택하는 유형이다. 각 어휘는 하나 이상의 서로 다른 의미를 가질 수 있는데, 그 중 문맥 속에서 어떤 의미로 사용되고 있는지를 파악한 후 그 의미와 가장 유사한 의미를 가진 어휘를 골라야 한다.

따라서 Vocabulary 문제를 해결하기 위해서는 문맥 속에서 주변 문장 단서를 이용하여 단어의 의미를 정확하게 파악하는 skill을 익혀 두어야 한다. 또한 평소에 다양한 지문을 접하면서 충분한 어휘력을 길러 두는 것이 좋다. 이 때 단어의 개별적인 의미뿐 아니라 동의어군을 함께 외워두는 것이 문제풀이에 많은 도움이 된다.

Vocabulary 문제는 보통 한 지문당 3~4개가 출제된다.

### Types of Questions

지문에 어휘 또는 구가 음영 처리되어 있으며 4개의 보기가 주어진다.

Vocabulary 문제의 전형적인 질문 유형은 아래와 같다.

- The word [ ] in the passage is closest in meaning to
- The phrase [ ] in the passage is closest in meaning to
- In stating that [ ] the author means that

지문에 중요개념으로 설명되어 있는 용어를 제대로 이해하고 있는지를 묻는 문제 형태도 간혹 출제된다.

- Based on the information in paragraph \_\_\_\_ which of the following best explains the term [ ] ?

## 전략 1 보기에서 문제로 제시된 어휘와 가장 유사한 의미를 담고 있는 것으로 예상되는 후보를 고른다.

우선 문제로 제시된 어휘의 사전적 의미를 바탕으로 보기에서 이와 가장 유사한 의미를 담고 있는 것으로 예상되는 후보를 고른다.

Ex The phrase accounted for in the passage is closest in meaning to

- (A) filled up
- (B) held
- (C) lessened
- (D) required

→ 문제의 accounted for는 '(~의 비율을) 차지하다'라는 뜻을 가지고 있고 4개의 보기 중 이와 유사한 의미를 가진 어휘는 (B) held이다.

(A) 보충하다 (B) 점유하다 (C) 줄이다 (D) 요구하다

**Tip** 문제로 제시된 어휘의 의미를 정확하게 알고 있는 경우에는 예상 후보를 고른 후 '전략 3' 단계로 바로 넘어가고 잘 모르는 단어일 경우에는 '전략 2' 단계를 거치도록 한다.

## 전략 2 지문에서 해당 어휘의 주변 문장 단서들을 활용하여 문맥상 의미를 유추한다.

문제로 제시된 어휘의 의미를 모르더라도, 지문에서 해당 어휘의 주변 문장 단서들을 활용, 전후 문맥을 잘 살펴보면 제시된 어휘의 의미를 유추할 수 있다.

Ex As human settlements increased in size, by reason of the technological advances in irrigation and cultivation, the need for improving the circulation of goods and people became ever more acute. Pre-neolithic men leading a nomadic existence in their never-ending search for food moved largely by foot and carried their essential goods with the help of their family.

Q: In stating that pre-neolithic men leading a nomadic existence the author means that pre-neolithic men

- (A) led a primitive simple life
- (B) travelled from place to place
- (C) ran short of provisions
- (D) were involved in combats

→ In their never-ending search for food moved largely by foot을 통해 leading a nomadic existence가 '이리 저리 옮겨 다니며 사는'이란 의미를 나타내고 있음을 알 수 있으므로 4개의 보기 중 (B) travelled from place to place가 정답이다.

#### ● 동격 표현 단서

동격을 나타내는 다양한 표현들을 통해 어휘의 의미를 유추할 수 있다. 주로 comma(,), dash(-), or 등이 앞에 나온 어휘와의 동격 표현을 나타낸다.

Ex The Revolution of 1932 in Thailand brought an end to **monarchy** – an autocracy governed by a sole and absolute ruler – in its complete form.

→ Monarchy 뒤에 따라 나오는 dash(-) 사이의 구를 통해 monarchy가 '군주제'임을 알 수 있다.

#### ● 부연 설명 단서

관계절이나 부사절, 분사 등과 같은 부연 설명 표현을 통해 어휘의 의미를 유추할 수 있다.

Ex Doctors use **jargons**, which are special language used by particular group, or profession, so that patients do not understand what they need not know.

→ Jargons에 대한 부가 설명을 하고 있는 which 관계절을 통해 jargons가 '특정한 사람들에 의해 쓰이는 특별한 언어'를 의미한다는 것을 알 수 있다.

#### ● 예시 표현 단서

제시된 어휘의 예를 나타내는 표현을 통해 어휘의 의미를 유추할 수 있다.

Ex Nutritionists say most of our diet should come from **carbohydrates** such as breads, cereals, rice, and pasta.

→ Such as를 통해 breads, cereals, rice, and pasta가 carbohydrates의 예시임을 알 수 있고 이를 통해 carbohydrates가 '탄수화물'을 의미함을 알 수 있다.

#### ● Paraphrase 표현 단서

한 지문에는 똑같은 단어의 반복을 피하기 위해 비슷한 의미의 다른 단어가 쓰인, 즉 paraphrase 된 경우가 많다. 이를 이용해 단어의 의미를 쉽게 찾을 수 있다.

Ex The climate of the equatorial regions provides all the necessary ingredients for rapid plant growth and it is not uncommon for trees to attain heights of up to 40 meters. Such **immense** plants require an extremely large leaf area in order to harness enough sunlight for photosynthesis, and the combined crowns of these enormous trees form an almost continuous canopy.

→ Large, enormous와 같은 어휘들이 immense를 paraphrase한 단어들이다. Trees ~ heights of up to 40 meters도 immense를 설명해준다. 따라서 immense가 '크기가 큰'을 의미함을 알 수 있다.

#### ● 문장구조 단서

문장의 앞뒤 논리 구조 – 대조, 인과 등 – 를 통해 어휘의 의미가 유추 가능하다.

Ex The fort appeared **deserted**, but inside it was full of government soldiers and officers.

→ But이라는 대조 표현을 통해 deserted가 '가득찬'이라는 의미를 가진 full과 상반되는 '황량한'이라는 의미를 가지고 있음을 알 수 있다.



**전략 3** 예상 답을 음영된 어휘 자리에 대입하여 문맥이 통하는지 확인한다.

예상 답을 음영된 어휘 자리에 대입하여 문맥 속에서 문제로 제시된 어휘와 같은 의미로 사용되는지 확인한다.

Ex The location on which the Inuit people lived was extremely inhospitable and the population relied heavily on traditional hunting and gathering techniques for survival. In order to acquire sufficient supplies, they dwelt in temporary settlements, moving to a bountiful source, depleting it, and moving to the next.

Q: The word depleting in the passage is closest in meaning to

- (A) sparing
- (B) accumulating
- (C) exhausting
- (D) stealing

→ 문제의 depleting은 '고갈시키다'의 의미를 가지므로 (C) exhausting을 후보로 고를 수 있다.

(A) 아끼다 (B) 축적하다 (C) 고갈시키다 (D) 훔치다

문맥이 자연스러운지 확인

답으로 예상되는 (C) exhausting을 지문의 depleting 자리에 대입하면 'Inuit족은 임시 거주지에 살았고 풍부한 자원을 찾아 이동하여 그 자원을 다 써 버리면 다른 곳으로 이동했다'라고 해석되어 문맥이 자연스러우므로 정답으로 선택할 수 있다.

**Tip** 지문에 중요개념으로 설명되어 있는 용어를 제대로 이해하고 있는지를 묻는 문제의 경우, 예상 답에 사용된 표현은 지문에서 그 용어를 설명하는데 쓰인 표현이 paraphrase된 것이다. 따라서 paraphrase된 보기가 지문에서 설명된 용어와 같은 의미를 담고 있는지 다시 확인한다.

Long-tailed macaques are the most arboreal species in macaques; it means that they normally spend most of their time in the trees and live exclusively in tropical areas.

Q: Based on the information in the passage, which of the following best explains the term arboreal species?

A: Species that tend to inhabit trees in tropical climates

지문에 따르면 arboreal species는 나무에서 대부분의 시간을 보내고 열대 지역에서만 서식한다고 설명되어 있다. 지문의 spend most of their time in the trees가 보기에는 tend to inhabit trees로, in tropical areas는 in tropical climates로 올바르게 paraphrase되어 있으므로 보기는 지문의 내용과 같은 의미를 담고 있다.

## Hackers Strategy Application

Regardless of their environment, all chimpanzee communities are patriarchal, or dominated by males, although adult females can outnumber adult males by two or three times. Like community memberships, the hierarchy among male chimpanzees is highly flexible, with males associating with each other, joining and leaving subgroups at will. While the male hierarchy is more or less linear, it is dominated by one alpha male. He may assume power through acts of aggression, strength or intelligence, often by using "dominance displays." Such a display might include charging a group of males while making loud noises. Alternatively, one male chimpanzee might attack the reigning alpha male head-on, challenging his position in front of the others. This is precisely how a low-ranking chimpanzee is able to take over the alpha male position.

1. The word **flexible** in the passage is closest in meaning to

- (A) prudent
- (B) obstinate
- (C) sheer
- (D) variable

Smart dust consists of a large amount of millimeter-scale microelectromechanical devices referred to individually as motes. Motes are as tiny as dust particles, and composed of a bi-directional wireless transceiver which has remote sensors. Thousands of motes can be spread throughout buildings or into the atmosphere to collect and monitor data. What makes smart dust noteworthy is that it has a networking capability: a single mote can only provide a very small piece of information, but hundreds of motes communicating with each other can produce a very detailed picture of what is happening somewhere. Smart dust devices, therefore, have applications in everything from military to meteorological to medical fields.

2. Based on the information in the passage, which of the following best explains the term **Smart dust**?

- (A) Military networking systems to deliver detailed information
- (B) Communications equipment installed in various buildings
- (C) Collections of motes used for gathering and checking data
- (D) Dust particles connected to a bi-directional wireless transceiver

- 1 **전략 1 적용** 문제로 제시된 **flexible**은 '구부리기 쉬운, 융통성 있는'이라는 의미를 가지고 있으므로 4개의 보기 중 (D) **variable**을 후보로 고를 수 있다.  
(A) 신중한 (B) 완고한 (C) 완전한 (D) 변할 수 있는

**전략 2 적용** 지문에서 문제로 제시된 어휘 **flexible**의 의미는 뒤따르는 'with males associating with each other, joining and leaving subgroups at will'을 통해 알 수 있다.  
즉, '수컷들이 서로 어울리고 마음대로 집단에 들어오거나 나간다'는 내용으로 보아 문맥 속에서의 **flexible**의 의미는 '상황에 따라 변하는'이라는 의미를 가지고 있다는 것을 유추할 수 있다.

**전략 3 적용** 답으로 예상되는 (D) **variable**을 지문의 **flexible** 자리에 대입하면 '수컷들 사이에 서열은 매우 가변적이다'라고 해석되어 문맥이 자연스러운 것을 확인할 수 있다.

**정답** (D)

- 2 **전략 1 적용** 문제로 제시된 **smart dust**에서 **dust**는 '티끌'의 의미를 가지고 있으므로 4개의 보기 중 이와 유사한 의미를 포함하고 있는 (C) **collections of motes** (티끌)와 (D) **dust particles**를 후보로 고를 수 있다.  
(A) 상세 정보를 전달하는 군사 네트워크 시스템  
(B) 여러 건물에 설치되어 있는 통신기  
(C) 정보 수집 및 조사용 마이크로 전자기계 장치(mote)  
(D) 양방향 무선 라디오 송수신기에 연결된 먼지입자

**전략 2 적용** 지문에서 **smart dust**는 **mote**라고 불리는 마이크로 전자기계 장치로 이루어져 있고 이 **mote**는 정보 수집과 감시에 사용된다고 하였다. 따라서 (C) **Collections of motes used for gathering and checking data**가 **smart dust**란 용어를 가장 잘 설명하고 있다.

**전략 3 적용** 답으로 예상되는 (C)의 **collections of motes**는 지문의 **consists of a large amount of millimeter-scale microelectromechanical devices referred to individually as motes**에서 나온 표현이고, **used for gathering and checking data**는 지문의 **collect and monitor data**에서 나온 표현으로 (C)는 지문의 내용과 같은 의미를 담고 있다.

**정답** (C)



# HACKERS PRACTICE

- Write the word that is closest in meaning to the highlighted word in each passage and then choose a group of synonyms for it. The correct answer can be any part of speech.

1. The **traditional** and very inefficient oscillating sprinkler which sprays water high in the air can **squander** water to winds and evaporation, and sprinklers which produce mists or fine sprays can similarly waste large volumes of water to evaporation.

1 \_\_\_\_\_

- 2 A group of synonyms for squander is

- (A) sacrifice, give up, concede
- (B) lavish, expend, throw away
- (C) infect, pollute, contaminate
- (D) lose, misplace, yield

2. Chemicals may harm the **outer** surface of the body such as the skin and mucous membranes. Alternatively, they may cause **damage** by their actions from within the body if they are permitted to enter the blood stream, or any of the tissues or organs.

1 \_\_\_\_\_

- 2 A group of synonyms for damage is

- (A) result, outcome, consequence
- (B) barrier, obstacle, obstruction
- (C) injury, devastation, hurt
- (D) speck, blot, splotch

3. The initial carbon dioxide in the atmosphere of the young Earth was emitted by volcanic activity; this was essential for a warm and stable climate **conducive** to life. Volcanic activity now **releases** about 130 to 230 teragrams of carbon dioxide each year.

1 \_\_\_\_\_

- 2 A group of synonyms for releases is

- (A) makes use of, exploits, applies
- (B) prevails over, overrides, eclipses
- (C) gives off, radiates, sends out
- (D) does away with, eliminates, removes

**Vocabulary** The word  in the passage is closest in meaning to

- |               |              |                  |                  |                 |
|---------------|--------------|------------------|------------------|-----------------|
| 1 traditional | (A) folk     | (B) conventional | (C) fixed        | (D) established |
| 2 outer       | (A) poignant | (B) proficient   | (C) acrid        | (D) exterior    |
| 3 conducive   | (A) awesome  | (B) immoderate   | (C) advantageous | (D) abject      |

4. Countries with similar constitutional provisions display sharp variation in the execution of executive authority. The German Chancellor can exercise immeasurably more power over government than his Italian counterpart can.

1 \_\_\_\_\_

- 2 A group of synonyms for exercise is

- (A) wield, exert, use
- (B) expect, anticipate, predict
- (C) convoke, summon, call
- (D) create, form, invent

5. One reason that energy prices are so volatile is that many consumers are extremely limited in their ability to substitute between fuels when the price of natural gas, for example, fluctuates.

1 \_\_\_\_\_

- 2 A group of synonyms for fluctuates is

- (A) deviates, straggles, wanders
- (B) keeps still, remains stationary, stays put
- (C) subsides, abates, dies down
- (D) vacillates, oscillates, sways

6. Most stars are of nearly constant luminosity. The Sun is a good example of one which goes through relatively little change in brightness (usually about 0.1% over an 11 year solar cycle). Many stars, however, undergo significant variations in luminosity, and these are known as variable stars.

1 \_\_\_\_\_

- 2 A group of synonyms for luminosity is

- (A) bulk, size, volume
- (B) radiance, brilliance, glitter
- (C) tranquility, serenity, calmness
- (D) movement, motion, gesture

**Vocabulary** The word        in the passage is closest in meaning to

- |               |                |                |              |               |
|---------------|----------------|----------------|--------------|---------------|
| 4 counterpart | (A) equivalent | (B) supplement | (C) opponent | (D) colleague |
| 5 limited     | (A) restricted | (B) redeemed   | (C) implored | (D) maimed    |
| 6 undergo     | (A) endure     | (B) experience | (C) enjoin   | (D) manage    |

7. Prior to the arrival of the horse on the plains, the tipi had to be of sufficient size to be carried from place to place by the women and dogs. With the coming of the horse, however, this changed dramatically. One result was that lodge poles, which used to be only five to six feet high, now extended to an average of fifteen feet. By using three horses the dwelling could now be transported quite comfortably.

1 \_\_\_\_\_

- 2 A group of synonyms for transported is

- (A) ditched, discarded, forsaken
- (B) conveyed, transferred, borne
- (C) disjointed, dismantled, disintegrated
- (D) fortified, strengthened, reinforced

8. The Dalcroze Method, a combination of body movement and musical theory, encourages students to adopt a natural feel for musical expression by using the human body as a musical instrument. As a whole, it consists of three equally important fundamental concepts: solfege, improvisation, and Eurhythmics, which together amount to what Jacques-Dalcroze considered a complete musical training. Ideally, an amalgamation of these notions results in a creative and artistic individual.

1 \_\_\_\_\_

- 2 A group of synonyms for notions is

- (A) phases, stages, periods
- (B) ideas, views, opinions
- (C) impacts, effects, influences
- (D) knacks, aptitudes, talents

9. Although the division of labor is fairly clear-cut based on age, research has shown that in a worker bee population with an unbalanced age structure resulting from some catastrophic event, individual worker bees adapt and assume duties that are not normal for their age. When they are forced to modify their behavior in this fashion, they perform less effectively than when they follow a normal sequence of development.

1 \_\_\_\_\_

- 2 A group of synonyms for modify is

- (A) acknowledge, observe, recognize
- (B) revise, adjust, alter
- (C) subjugate, suppress, subdue
- (D) withstand, confront, defy

**Vocabulary** The word        in the passage is closest in meaning to

- |                |              |                |               |             |
|----------------|--------------|----------------|---------------|-------------|
| 7 dramatically | (A) chiefly  | (B) strikingly | (C) profusely | (D) shortly |
| 8 combination  | (A) decrease | (B) stimulus   | (C) clout     | (D) hybrid  |
| 9 fashion      | (A) vogue    | (B) manner     | (C) satire    | (D) creed   |



● Choose the word that best completes the blank in each sentence.

10. Populations with high mobility and low \_\_\_\_\_ in the Papago Indian community make it difficult to be **delineated** as a population unit.
- (A) fluidity  
(B) medium  
(C) weight  
(D) stability
11. Earthworms have a closed circulatory system and they have two main blood vessels that **extend** through the length of their body – a ventral blood vessel which leads the blood to the \_\_\_\_\_ end, and a dorsal blood vessel which leads it to the anterior end.
- (A) prior  
(B) posterior  
(C) superior  
(D) inferior
12. Atoms and molecules are electrically neutral in that the number of negatively charged electrons is **exactly** \_\_\_\_\_ to the number of positively charged protons.
- (A) affable  
(B) equal  
(C) partial  
(D) dispensable
13. A **notorious** meat-eating dinosaur known as *Tyrannosaurus rex* underwent a massive growth spurt, eventually reaching some 5,000 kilograms, but the dinosaur became too \_\_\_\_\_ to move quickly and had to scare away more effective predators in order to steal their meals.
- (A) bright  
(B) hefty  
(C) scanty  
(D) petite

**Vocabulary** The word \_\_\_\_\_ in the passage is closest in meaning to

- |               |               |                |                  |                 |
|---------------|---------------|----------------|------------------|-----------------|
| 10 delineated | (A) suggested | (B) insinuated | (C) described    | (D) constructed |
| 11 extend     | (A) drag      | (B) protrude   | (C) approach     | (D) range       |
| 12 exactly    | (A) intensely | (B) accurately | (C) amiably      | (D) forcefully  |
| 13 notorious  | (A) vulgar    | (B) devout     | (C) disreputable | (D) fearful     |

14. Arabica and Robusta coffee beans are clearly \_\_\_\_\_ in shape: Arabica beans are flat and oblong with a crooked furrow, while Robusta beans are convex and round with a straight center furrow.
- (A) adaptable  
(B) erratic  
(C) sustainable  
(D) distinguishable
15. The most persistent question in the selective attention theories has been whether the shifts in attention that accompany changes in the arousal level are automatic or \_\_\_\_\_.
- (A) faint  
(B) deliberate  
(C) involuntary  
(D) incessant
16. The ideals of four presidents on Mount Rushmore laid a foundation for America as \_\_\_\_\_ as the rock from which their figures are carved.
- (A) imposing  
(B) solid  
(C) rigorous  
(D) unpredictable
17. Kinetoscopes typically showed \_\_\_\_\_ films, but sometimes, as in the case of a famous boxing match, they would display successive rounds of the fight.
- (A) elemental  
(B) concise  
(C) discrete  
(D) surreal

**Vocabulary** The word        in the passage is closest in meaning to

- |              |                |              |               |               |
|--------------|----------------|--------------|---------------|---------------|
| 14 clearly   | (A) definitely | (B) normally | (C) purely    | (D) largely   |
| 15 accompany | (A) indict     | (B) compile  | (C) companion | (D) affront   |
| 16 carved    | (A) dissipated | (B) incised  | (C) deemed    | (D) capsized  |
| 17 display   | (A) exhibit    | (B) adjourn  | (C) pound     | (D) recollect |

- Read each passage and answer the corresponding questions for each.

18. The aurora borealis is a beautiful display of lights that can be seen over the northern pole of Earth. It will appear in the northern part of the sky and have a ribbon-like shape that changes and shimmers over time. It will have hues that range from very pale white to green to blue and sometimes purple. Usually it is most visible in more northern latitudes, such as Canada and Alaska, although if it is bright enough and large enough, it can be discernible as far south as Florida. There is a similar phenomenon called the aurora australis in the southern hemisphere that behaves the same way.

1 The word shimmers in the passage is closest in meaning to

- (A) wanes
- (B) glistens
- (C) shrivels
- (D) flows

2 The word hues in the passage is closest in meaning to

- (A) instruments
- (B) odors
- (C) tints
- (D) attributes

3 The word discernible in the passage is closest in meaning to

- (A) acute
- (B) perceptible
- (C) bountiful
- (D) vagarious

**Vocabulary** The word  in the passage is closest in meaning to

- |            |               |                 |                |                 |
|------------|---------------|-----------------|----------------|-----------------|
| 18 appear  | (A) retire    | (B) cease       | (C) assemble   | (D) emerge      |
| phenomenon | (A) testimony | (B) predicament | (C) occurrence | (D) promptitude |
| behaves    | (A) handles   | (B) acts        | (C) consorts   | (D) surpasses   |



19. Since the beginning of human civilization, people have questioned the origins of their existence and the creation of the universe. "Where did it all come from?" "How was it created?" These are the questions that plagued ancient societies and which still puzzle scientists today. Cosmology, the study of the large-scale structure and evolution of the universe, is the branch of science which has evolved from these questions. Within this field of study, the Big Bang theory has become the most prevalent one, because the majority of evidence from a variety of different investigations makes it extremely likely that something like the Big Bang occurred. The Big Bang theory of cosmology assumes that the universe began from a singular state of infinite density. As Joseph Silk defines the Big Bang theory, "it is a model of the universe in which space-time began with an initial singularity and subsequently expands."

1 The word puzzle in the passage is closest in meaning to

- (A) acclaim
- (B) confound
- (C) brace
- (D) inspire

2 The word prevalent in the passage is closest in meaning to

- (A) frivolous
- (B) succinct
- (C) dominant
- (D) constant

3 The word subsequently in the passage is closest in meaning to

- (A) successively
- (B) seemingly
- (C) simultaneously
- (D) sparsely

**Vocabulary** The word   in the passage is closest in meaning to

- |                |                |                  |                 |                    |
|----------------|----------------|------------------|-----------------|--------------------|
| 19 existence   | (A) presence   | (B) enlargement  | (C) expediency  | (D) continuation   |
| investigations | (A) shreds     | (B) examinations | (C) dimensions  | (D) qualifications |
| infinite       | (A) scrupulous | (B) recurrent    | (C) inquisitive | (D) measureless    |

20. The snow from which glaciers form is subject to repeated freezing and thawing, permitting the formation of a form of granular ice called névé. Under the pressure of the layers of ice and snow above it, this granular ice fuses into firn. Over a period of years, layers of firn undergo further compaction and become glacial ice. Glacial ice contains minute air bubbles as a result, giving it a distinctive blue tint due to Rayleigh scattering. The lower layers of glacial ice flow and deform plastically under pressure, allowing the glacier as a whole to move like a viscous fluid. Glaciers do not need a slope to flow, being driven by the continuing accumulation of new snow at their source. The upper layers of glaciers are more brittle, and often form deep cracks known as crevasses as they flex. These crevasses make travel over glaciers dangerous. Glacial meltwaters flow throughout and underneath glaciers, carving channels in the ice similar to caves in rock and also helping to lubricate the glacier's movement. In the summer, the melted ice from the glacier alone may be enough to create a stream and while the glacier may be a barren waste of dense ice, fertile land is often nearby. The place where the glacier thins to nothing is called the ice front.

- 1 In stating that the glacier as a whole to move like a viscous fluid the author means that the glacier would
- (A) evaporate while advancing
  - (B) melt gradually
  - (C) progress in the opposite direction
  - (D) shift slowly
- 2 The word brittle in the passage is closest in meaning to
- (A) firm
  - (B) fragile
  - (C) fatal
  - (D) furious
- 3 According to the passage, which of the following best explains the term ice front?
- (A) a fracture of a glacier formed by a crash
  - (B) a portion of a glacier that disappears as it loses thickness
  - (C) a layer of compacted ice that is filled with air bubbles
  - (D) a form of granular ice caused by freezing and thawing cycles

**Vocabulary** The word        in the passage is closest in meaning to

20 minute	(A) slender	(B) clumsy	(C) diminutive	(D) general
dense	(A) compact	(B) profound	(C) mammoth	(D) deep
fertile	(A) prosaic	(B) valiant	(C) contingent	(D) teeming

21. President Andrew Jackson (1829-1837) opposed the successor to Hamilton's National Bank, which he believed avored the entrenched interests of the East against the West. When he was elected for a second term, Jackson objected to renewing the bank's charter, and Congress supported him. Their actions shook confidence in the nation's financial system, and business panics occurred in both 1834 and 1837. However, periodic economic dislocations did not curtail rapid U.S. economic growth during the 19<sup>th</sup> century. New inventions and capital investment led to the creation of new industries and economic growth. As transportation improved, new markets continuously opened. The steamboat made river traffic faster and cheaper, but development of railroads had an even greater effect, opening up vast stretches of new territory for development. Like canals and roads, railroads received large amounts of government assistance in their early building years in the form of land grants. However, unlike other forms of transportation, railroads also attracted a good deal of domestic and European private investment.

1 In stating that business panics occurred the author means that business was

- (A) crippled by a sudden fear
- (B) relocated into distant areas
- (C) restored by a new banking system
- (D) bolstered by capital investment

2 The word curtail in the passage is closest in meaning to

- (A) restrain
- (B) stimulate
- (C) prolong
- (D) foresee

3 The word assistance in the passage is closest in meaning to

- (A) sanction
- (B) compliment
- (C) support
- (D) criticism

**Vocabulary** The word  in the passage is closest in meaning to

- |              |               |                  |                 |                  |
|--------------|---------------|------------------|-----------------|------------------|
| 21 favored   | (A) shunned   | (B) advocated    | (C) swerved     | (D) presaged     |
| renewing     | (A) resuming  | (B) recruiting   | (C) resolving   | (D) replenishing |
| continuously | (A) certainly | (B) collectively | (C) continually | (D) charitably   |



22. Over the last 15 years or so a new approach has emerged to make direct measurements of the internal structure and dynamics of the Sun and, ultimately, other stars, as well. The discovery of propagating sound waves in the Sun in the 1960s and their explanation in the 1970s has led to the development of this exciting new technique called helioseismology. This approach is actually a form of acoustical spectroscopy applied to solar seismic waves. Helioseismology utilizes waves that diffuse throughout the Sun to measure, for the first time, the invisible internal structure and dynamics of a star. There are millions of distinct, resonating sound waves seen by the Doppler shifting of light emitted at the Sun's surface. The periods of these waves depend on their propagation speeds and the depths of their resonant cavities, and the large number of resonant modes, with different cavities, allows the construction of extremely narrow probes of the temperature, chemical composition, and motions from just below the surface down to the very core of the Sun.

1 The word **measurements** in the passage is closest in meaning to

- (A) configurations
- (B) imitations
- (C) amendments
- (D) calculations

2 The word **diffuse** in the passage is closest in meaning to

- (A) permeate
- (B) flock
- (C) break out
- (D) shatter

3 The word **core** in the passage is closest in meaning to

- (A) periphery
- (B) center
- (C) gist
- (D) rim

**Vocabulary** The word  in the passage is closest in meaning to

- |             |               |              |                |                 |
|-------------|---------------|--------------|----------------|-----------------|
| 22 utilizes | (A) typifies  | (B) employs  | (C) induces    | (D) shrinks     |
| resonating  | (A) swiveling | (B) alluring | (C) slumbering | (D) resounding  |
| probes      | (A) inquiries | (B) upsurges | (C) vestiges   | (D) successions |

정답 p.409

## [1] Tundra

- 1 The term tundra, evolved from the Finnish word 'tundar,' meaning treeless plain, describes a region of physical geography where the growth of trees is arrested by freezing temperatures. Low-lying vegetation such as lichens, mosses, herbs, and shrubs, which tend to appear brownish-green in color and exhibit slower than average species succession, characterizes the common flora found on the terrain.
- 2 ➡ The ecosystem of a tundra can be classified into two broad categories, based on its location of the plain: in the Polar Regions, the Arctic tundra features rolling or level ground encircling the north pole and extending south to the edge of the equatorial timberline; the alpine tundra begins at any latitude where the altitude is high enough to cripple normal tree growth.
- 3 At alpine tundra elevations, subalpine forests of spruce and firs transition into Krummholz and then, if soil is well-developed, into open meadows on gentle slopes, or, in areas with dramatic erosion, into windswept slopes where cushion plants thrive. A significant amount of annual precipitation fosters short vegetation, as does the inclination of the mountainsides, providing good drainage for spring meltwater and heavy summer rains. This, combined with moderate temperatures ranging from  $-20^{\circ}\text{C}$  in the winter to around  $20^{\circ}\text{C}$  in the warmer season, even allows some shrubs to grow, especially along streams or where snow accumulates in deep drifts as on the lee side of ridges or in shallow valleys. Where severe conditions prevail, plants are still fortunate enough to have a long growing season, 180 days on the average, and despite the danger of nighttime frost, lichen and moss manage to endure.
- 4 Vegetation situated nearby burrows also succeeds due to an additional boost from nitrogen and other nutrients leached into the soil from animal manure. Some fauna, like ground squirrels and marmots, remain quite close to these dens for most of the year, collecting food in the summer and early autumn and retreating during the winter to hibernate. Others, like rabbits, continue to live among the snow during the winter, foraging for what they consume, or living off stored fat reserves as long as they can. Mountain sheep, wildcats, and many birds, only partially adapted to the cold environment, enter a vertical migration pattern, descend down onto warmer slopes throughout the winter, and seek food and more comfortable weather.
- 5 Animals in the Arctic tundra, with the exception of birds, cannot escape the wintry conditions because the expansive region, covering roughly one-tenth of the total surface of the Earth, is too big for migration to easily occur. Instead, they have adapted to handle long stretches of extremely cold weather by breeding and raising young quickly in the summer months, taking on white coats to camouflage from predators during periods when the area is blanketed in snow, or developing a layer of fat to both store energy and retain heat.

Caribou and reindeer cope with the low temperatures from about  $-35^{\circ}\text{C}$  to  $5^{\circ}\text{C}$  by preventing great heat dispersal through their massive body surface areas. They support their bulky frames by consuming large amounts of short patchy plants, mostly lichens, mosses, and small herbs that poke up through the nearly frozen top layer of the ground and cluster together in groups to tolerate the inclement weather. Overall, vegetation is stifled by a short growing season, only 50 to 60 days, little precipitation, and several weeks of daytime darkness, and unlike the alpine tundra, biological diversity is quite low. Shrubs and taller herbs, even if they can weather the poorly drained nutrient-deficient soil, are often unable to adjust to fluctuating temperatures and variations in daily sunlight. Of greater importance to the overall environment is the fact that approximately one-third of the planet's soil-bound carbon is stored in the Arctic tundra with the potential to greatly exacerbate the effects of global warming if the permafrost, a frozen bog built from layers of freezing precipitation, is subjected to unusually high temperatures.

1. The word *arrested* in the passage is closest in meaning to
  - (A) counterbalanced
  - (B) suppressed
  - (C) befuddled
  - (D) repaired
2. According to paragraph 2, how are the two types of tundra differentiated?
  - (A) By the amount of annual rainfall
  - (B) By the sorts of plants
  - (C) By the types of ground
  - (D) By the place in which they occur

Paragraph 2 is marked with an arrow [➡].

3. The word *fosters* in the passage is closest in meaning to
  - (A) proclaims
  - (B) regains
  - (C) promotes
  - (D) refrains



4. The word **endure** in the passage is closest in meaning to
- (A) withstand
  - (B) lapse
  - (C) flee
  - (D) seethe
5. According to the passage, animals in the alpine tundra aid plant growth by
- (A) depositing wastes that contain nutritive elements
  - (B) removing ice that covers the plants
  - (C) storing seeds over the winter in their burrows
  - (D) clearing areas of competing vegetation
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Due to the harsh conditions of the Arctic tundra, only birds make an attempt to leave the area during the winter.
  - (B) The weather conditions of the Arctic tundra make it impossible for most animals to follow seasonal migration patterns.
  - (C) As the Arctic tundra covers such a large portion of the Earth surface, animal migration routes are broad.
  - (D) The enormous size of the Arctic tundra prohibits almost all animals from leaving the area during the winter.
7. According to the passage, all of the following are a method by which animals can stand up to the rigorous Arctic weather EXCEPT
- (A) giving birth to and nurturing offspring during the summer
  - (B) eating a great volume of food during the summer
  - (C) forming blubber inside their body to stay warm
  - (D) disguising themselves with snow-colored fur
8. The phrase **cope with** in the passage is closest in meaning to
- (A) reckon
  - (B) enrich
  - (C) overcome
  - (D) exclude
9. The word **dispersal** in the passage is closest in meaning to
- (A) ignition
  - (B) shudder
  - (C) scattering
  - (D) cycle

10. The word **exacerbate** in the passage is closest in meaning to
- (A) etch
  - (B) worsen
  - (C) clasp
  - (D) extol
11. Directions: Select the appropriate phrases from the answer choices and match them to the type of geography to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Alpine Tundra
(A) Has a great deal of yearly rain that hastens the growth of plants	●
(B) Is in danger of being destroyed by human activity in a short time	●
(C) Functions as a reservoir for gas, which possibly increases earth temperatures	●
(D) Lacks light during the daytime for a period of a few weeks	
	Arctic Tundra
(E) Can be found in any region at a certain altitude	●
(F) Has extensive forests of spruce and firs on mountain ridges	
(G) Enables vegetation to grow for roughly half a year	●

정답 p.413

## [2] Baroque and Rococo Art

- 1 Growing out of a long period of conservative, traditionalistic art, the Baroque period started around 1600 in Rome, Italy, in response to a perceived banality in Renaissance style. The name was adopted from the Portuguese noun “barroco,” meaning an irregular pearl, and is used to describe elaborate techniques or thematic extravagances, which are characterizations that envelop the period as well as its fashion. At the height of Baroque popularity, critics of its ostentatious grandeur began using the word Rococo to brand a lighter and more intimate form of decoration that was achieving prominence in and around France. By the mid-18<sup>th</sup> century, Rococo, in and of itself, had become an artistic movement combining architecture, painting, sculpture, and music. Contemporary art historians often categorize the two genres in comparison to each other, with differences in one defining the distinguishing qualities of the other.
- 2 Historically, the production of pre-Baroque art was conceived of within the rigid confines of the Roman Catholic Church. This religious body was reorganized during the Protestant Reformation, a political movement that, throughout the 16<sup>th</sup> century, agitated for public access to Biblical scripts without the mediation of clergy. As a result of the new-found ability for non-clergy to take personal interest in Holy Scripture, ecclesiastical art was stripped of its esoteric church-controlled representation, allowing artists to create such works as paintings, murals, and sculptures that were, for the first time, commissioned by secular offices or private citizens to adorn spaces outside of the church. Overall, the artistic content was not suited for a well-informed and literate clergy familiar with the Bible but rather intended for mass consumption by the illiterate public. For this reason, Baroque art tends to focus on the Saints and the Virgin Mary in particular by illustrating famous stories for a widespread audience.
- 3 ➡ Due to its prevailing accessibility, by the end of the 17<sup>th</sup> century, Baroque art was so entrenched in the European identity that King Louis XIV declared it the official style of France, embellishing his Palace of Versailles in the fashion and building magnificent reception rooms, courts, and anterooms. The undertaking prompted anti-monarchists, who had grown tired of the king's over-indulgences, to respond by developing their own unique decorative arts, which they called Rococo, taking a conscious turn away from Baroque and utilizing strikingly different motifs.
- 4 At the outset of the Rococo style, only architectural design was affected; walls, ceilings, moldings, and engravings on residences were ornamented with abstract ‘s’ curves and ‘c’ scrolls combined with naturalistic motifs which were derived from shells and plants, with pastel and ivory white colors appearing most frequently. Mirrors were utilized to create the illusion of space and etherealness, usually framed in ornate mother-of-pearl with inlaid gold and silver. The effervescence stood in stark contrast to the king's heavy, passionate designs, which blended the great, serious drama of the Bible with rich, deep colors and intense shadows. Whereas Baroque illustrated serious religious undercurrents by exaggerating motion in concise detail, Rococo alleviated this tension.
- 5 As Rococo moved from architecture into visual art, paintings and sculptures began to



reflect playfulness and lightness, often portraying carefree aristocratic couples on leisurely outings, or cherubs representative of the myths of love, and integrated a variety of diverse characteristics, including a taste for Oriental designs and asymmetric compositions. Balance, an important aspect of the Baroque style coming about in the age of mathematical and geometrical advancements, was discarded in favor of its antithesis. At the same time, Baroque works such as Bernini's carved marble fountains, undoubtedly the most conspicuous examples of the style, as well as his busts and figures, which were meticulously proportioned, fell out of fashion. Misshapen chandeliers, disfigured shellwork and paintings that depicted some figural elements larger than others, came to exemplify the Rococo genre, recoiling from any works that were overly conscientious or weighty in nature.

- 6 The refusal of Rococo artists to produce any works that could be deemed as profound has incited some debate between art historians who attempt to situate the genre into a meaningful discussion about its long-lasting impacts on culture. While some believe that the style is merely a brief reaction to Baroque's clear and incontrovertible impression, others argue that the nature of Rococo is not so inconsequential.

1. The word prominence in the passage is closest in meaning to
  - (A) agreement
  - (B) clemency
  - (C) prestige
  - (D) overturn
2. According to the passage, prior to the Protestant Reformation, religious art
  - (A) was used to teach those who couldn't read the Bible
  - (B) was requested by the church for decorative purposes
  - (C) was only to be understood by studying Holy Scripture
  - (D) was restricted to works produced by the church
3. According to paragraph 3, the anti-monarchists developed Rococo in response to
  - (A) the then current king's prodigal manner
  - (B) the need to adorn the Palace of Versailles
  - (C) the lack of an accepted European identity
  - (D) Baroque's adoption as the national style

Paragraph 3 is marked with an arrow [➡].

4. The word **outset** in the passage is closest in meaning to
- (A) vagary
  - (B) outline
  - (C) regard
  - (D) beginning
5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) A difference between Baroque and Rococo was how each dealt with religious themes.
  - (B) The tension which was expressed in Baroque paintings was absent in Rococo works.
  - (C) Baroque's focus on detail and accuracy was much different from the Rococo style.
  - (D) Rococo contrasted with Baroque by reducing the solemnity of religious themes.
6. The word **undoubtedly** in the passage is closest in meaning to
- (A) unfitly
  - (B) surely
  - (C) unrelentingly
  - (D) hollowly
7. The word **profound** in the passage is closest in meaning to
- (A) feverish
  - (B) grand
  - (C) abstruse
  - (D) jubilant
8. The word **incited** in the passage is closest in meaning to
- (A) roused
  - (B) grieved
  - (C) unveiled
  - (D) whittled
9. The word **incontrovertible** in the passage is closest in meaning to
- (A) pleasing
  - (B) indistinct
  - (C) complimentary
  - (D) manifest

10. Directions: Select the appropriate phrases from the answer choices and match them to the type of art they represent. ***This question is worth 4 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Baroque Art
(A) Was a precursor to the reconstruction of the Roman Catholic Church	●
(B) Made use of glasses to provoke delusion of space and heavenliness	●
(C) Placed great emphasis upon symmetry	●
(D) Was characterized by distorted figures and pieces	
(E) Highlighted well-known figures to appeal to the masses	●
(F) Was planned to be used by a knowledgeable and literate cleric	Rococo Art
(G) Amalgamated dark colors and stark contrasts with the graveness of Biblical works	●
(H) Was initially an Italian art devised in reply to mundane Renaissance styles	●
(I) Applied many curved lines with themes taken from nature	●

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### [3] Cichlids

- 1 The world's second largest freshwater lake after Lake Superior, Lake Victoria is home to an astonishing array of tropical fish, the most remarkable of which include 500 different species of cichlids, a group of fish ranging in size from 3 cm to 1 m. This variety is even more amazing when considering that only 60 species in total inhabit all of Western Europe.
- 2 All of these kinds appear to have descended from a common ancestor in a process known as adaptive radiation, in which one pioneer branches out rapidly to fill the various habitats. Since Lake Victoria wouldn't exist until the end of the last Ice Age, the pioneers originated in rivers and while there, were stable and lingered unchanged because the environments in rivers were harsh and variable, and these constantly varying conditions deterred rapid speciation. Any species too specialized would be unable to adjust to new circumstances. In these changing environments, it was advantageous to be a generalist and therefore have the ability to exploit multiple microhabitats. Due to these constraints, they were evolutionarily stagnant until the situation changed drastically about 14,700 years ago when melting glaciers at the end of the Ice Age filled the area that had previously been completely desiccated, creating Lake Victoria, and the cichlids living adjacent to the area quickly emigrated to this new territory.
- 3 The pioneers remained similar to the ones which lived in the river until the lake environment settled after 3,000 years, but due to conspecific internecine conflict, the abundant cichlids had to variegate into microhabitats. These first fish had the advantage of being the first species in the area, and facing no competition for resources, they quickly flourished. With stable environments also came the opportunity for adaptations in behavior, anatomy, and morphology that distinguish individuals from their competitors and allow them to exploit a niche more efficiently. Those able to adapt would have an evolutionary advantage over all the others in the pursuit of food and mating opportunities.
- 4 One of the main features that enabled cichlids to diversify so quickly was their multiple sets of jaws. Unlike other fish, they have an additional set in their throat known as the pharyngeal apparatus that functions very much like teeth, whereas the teeth in the mouth serve more like hands. The pharyngeal jaws are quite agile with the upper able to move up and down, as well as dislocate, and the lower capable of moving forwards and backwards. Since the pharyngeal set is used for feeding, the teeth in the mouth are free to adapt without interfering with the ability of the fish to ingest sustenance. Among the cichlids found in Lake Victoria, the teeth have morphed into a variety of different types of feeding adaptations, such as spade-like scrapers and tweezer-like pinchers.
- 5 Yet feeding alone doesn't put the requisite selective pressure to explain the myriad types of these fish found; the additional driving force was their color-restricted mating spectacles that contributed to rapid speciation. In species like the cichlid in which the males play little or no role in parenting and attempt multiple matings each season, sexual selection by females can play a powerful evolutionary role. When females have a wide variety of partners to choose from, they are allowed to be more particular about their mates. The males, on the other hand, have to find some way to overcome the enormous competition.

In cichlids, it has led to spectacular male courtship exhibitions, colors, designed to entice females into spawning. Since those endemic to Lake Victoria respond only to specific displays by the males, it increases the chances that groups preferring alternate characteristics will then sympatrically produce other species.

- 6 Unfortunately, the incredible diversity has been decreasing and now over 250 indigenous types can no longer be found in Lake Victoria. In the 1950s, over the objections of wildlife ecologists, the British colonial government, hoping to give the local fishery a bigger fish to catch, introduced a non-native species, the Nile perch, into the lake. Commonly referred to as a voracious predator, the perch can grow to a hefty six-foot, 200-pound giant. The thinking at the time was that the large predator would feed on the smaller fishes (i.e. the numerous small cichlids) and lead an immense growth in the fishing industry in the area. It was quick to establish itself and fundamentally changed the lake's ecology by eating, to the point of extinction, at least half of the cichlid species. At present, cichlids constitute less than one percent of fishes in Lake Victoria.

1. The word **inhabit** in the passage is closest in meaning to
  - (A) unify
  - (B) encroach on
  - (C) dwell in
  - (D) deluge
2. The word **stable** in the passage is closest in meaning to
  - (A) implacable
  - (B) steady
  - (C) exigent
  - (D) illusory
3. The word **deterred** in the passage is closest in meaning to
  - (A) averted
  - (B) bemoaned
  - (C) ordained
  - (D) protracted
4. The word **constraints** in the passage is closest in meaning to
  - (A) marvels
  - (B) spoofs
  - (C) restrictions
  - (D) splinters

5. What does the author state is the reason evolution occurs more rapidly in a lake than in a river?
- (A) Greater access to resources
  - (B) Fewer disruptions in the environment
  - (C) Less species to fight with over food
  - (D) More chances to mate
6. The word **requisite** in the passage is closest in meaning to
- (A) necessary
  - (B) spoilable
  - (C) piteous
  - (D) encouraging
7. The word **entice** in the passage is closest in meaning to
- (A) vex
  - (B) enliven
  - (C) coax
  - (D) revive
8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Due to the specificity of the displays of the males in Lake Victoria, non-native cichlid species are unable to mate with the locals.
  - (B) The mating displays of male cichlids produce alternating responses in the females, resulting in the development of new species of cichlids.
  - (C) Because female cichlids choose certain traits in their mates, there is a greater opportunity that new species will be formed in one place.
  - (D) As female cichlids only react to the mating exhibitions of males of their own species, closely related species of cichlids can coexist without interbreeding.
9. The word **immense** in the passage is closest in meaning to
- (A) exact
  - (B) enormous
  - (C) imprudent
  - (D) abstruse
10. According to the passage, the release of the Nile perch into the lake
- (A) is now an example of proper wildlife management techniques
  - (B) helps cichlids reproduce at a much faster rate
  - (C) increases levels of hunger by competition over the food
  - (D) has a negative effect on the native cichlid populations



11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The Lake Victoria cichlid underwent rapid diversification following the last Ice Age.**

- 
- 
- 

Answer Choices

- |  |  |
|--|--|
| (A) Once entering the lake, the cichlid began to thrive with the absence of competition and quickly separated in many different species. | (D) All the cichlid species in the Lake Victoria region 14,700 years ago had previously been isolated from each other.                 |
| (B) One reason for the swift adaptation of the cichlid was the ability of the jaws to chew various types of food.                        | (E) The transformation of the cichlid tooth structure caused by the existence of its several jaws led to manifold feeding adaptations. |
| (C) Since female cichlids are selective in choosing mates, males have had to develop extensive color exhibitions to attract females.     | (F) The need to adapt to the rapidly changing environment in Lake Victoria resulted in unique evolutionary patterns in cichlids.       |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

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#### [4] Opportunistic and Competitive Organisms

- 1 All organisms determine the amount of energy to expend in order to grow and maintain life by the chemical process known as metabolic synthesis, balancing the needs of each action with the desire to reproduce through sexual or asexual means. Plants and animals must build a systematic plan for the expenditure of fixed resources, such as food and water, during a given period. If too many endeavors are focused on developing a large body designed to dominate the biome, reproductive health may be threatened, placing the future viability of the species in jeopardy.
- 2 The allocation of energy, therefore, must maintain an equilibrium that ensures all organisms are capable of surviving within their particular physical environment while reserving enough strength to defend against predators, obtain adequate food, procreate, and grow into a given body design. Most of the time, the proportion of energy designated for the particular function is genetically determined, not consciously assigned, and all members of the species display relatively similar physiological states.
- 3 The major concern affecting the vitality of each species is how to direct energy to either build body mass or enable reproduction, and which operation takes precedence over the other. Organisms that divert the bulk of their energy into procreation, leaving little behind for growth, are “opportunists,” usually small in stature. At the other end of the spectrum, “competitors” survive for a number of years to mature and utilize ample energy to grow before becoming prepared to bear offspring or reproduce.
- 4 Semelparous organisms are perhaps the most common opportunists. They quickly reach sexual maturity and reproduce by a single reproductive act, usually dying shortly thereafter. These can encompass annual and biennial plants, some vertebrates and many insects, including the well-researched *Drosophila melanogaster*, otherwise known as the common fruit fly. The fly’s life cycle is extremely short, only several weeks, thus the insect squanders little energy on growth, moves swiftly through egg and larval and pupal stages before metamorphosis occurs, and forces its way out of the operculum as an adult with a tiny body and small wings. About 48 hours later, the female is ready to lay eggs and produces fertile ovum that can be inseminated by a single male who can deposit enough sperm, which is stored in her abdomen for the remainder of her life, for later uses. Because the fly’s body is so small, the female is unable to compete with other insects for the most secure location to deposit her fertilized eggs and thus drops as many as she can in the best available space.
- 5 Because opportunists are consistently plagued by aggressive competitive species that may crowd them out of optimal spaces, they must always penetrate new regions in order to continue their survival. Landscaped areas or places with exposed soil offer excellent reproductive opportunities due to limited natural adversaries. However, the success of each individual is fleeting, and adverse conditions like inclement weather can wipe out the entire population, creating unstable succession as the organisms flourish and dwindle in unpredictable patterns over time.

- 6 ➔ More stable species that can provide multiples of resources to defend and protect themselves and their offspring, are biological competitors. They tend to direct a huge amount of energy to growing large bodies, but expend very little energy on procreation, although they reproduce many times over a number of years. Iteroparous organisms are great examples of competitors, including the *Ursus americanus* or the American black bear. The black, brown, or cinnamon colored mammals have enormous bodies, sometimes exceeding 500 lbs, although the male is roughly 60% larger than the female. Growing these massive bodies delays reproductive maturity until the female is as old as seven years, primarily since they require size to fulfill their roles in the ecosystems as keystone predators and for males, it is necessary to ensure access to females and fight any territorial invaders that attempt to move into the region through intimidation and ruthless physical attacks. The investment into their size limits the number of offspring that the bears can produce within their lifetime, yet this hindrance is mitigated by the increased amount of time females spend in the den rearing offspring. It is important to note, however, that extreme examples of opportunists and competitors such as these are rare in nature, and most species exhibit qualities of both biological types.

1. The word endeavors in the passage is closest in meaning to
  - (A) offerings
  - (B) amounts
  - (C) exertions
  - (D) torments
2. The word allocation in the passage is closest in meaning to
  - (A) mode
  - (B) apportionment
  - (C) luster
  - (D) stuff
3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Because few places are available to female flies to deposit their eggs, they lay them in any open area they can access.
  - (B) Female flies' small size is a significant disadvantage, as it keeps them from occupying the best location for reproduction.
  - (C) Female flies lack the size to beat other insects over the prime nesting site, so they lay maximum eggs in the possible area.
  - (D) Female flies which do not have the capacity to compete due to their small size rely upon deceit to be successful in fertilization.



4. The word **aggressive** in the passage is closest in meaning to
- (A) ferocious
  - (B) audacious
  - (C) stunning
  - (D) unassailable
5. According to paragraph 6, for which of the following reason are the American black bears classified as competitors?
- (A) They grow in areas that cannot support opportunists.
  - (B) They expend a lot of time in nurturing their young.
  - (C) They have the ability to regulate complex metabolic processes.
  - (D) They put more energy into their bodies than reproduction.

Paragraph 6 is marked with an arrow [➡].

6. The word **delays** in the passage is closest in meaning to
- (A) bloats
  - (B) inveigles
  - (C) postpones
  - (D) jeopardizes
7. The word **intimidation** in the passage is closest in meaning to
- (A) vigilance
  - (B) menace
  - (C) derision
  - (D) disregard
8. The word **hindrance** in the passage is closest in meaning to
- (A) caution
  - (B) supplication
  - (C) contradiction
  - (D) impediment
9. According to the passage, the majority of organisms
- (A) acquire the ability to change into different types
  - (B) are more fortunate as competitors due to their volume
  - (C) are in danger of being exterminated by bigger ones
  - (D) have traits of both opportunists and competitors

10. Directions: Select the appropriate phrases from the answer choices and match them to the type of organism to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Opportunists
(A) Are seldom able to discover new locations for breeding	●
(B) Have fluctuating populations responding to the hostile circumstances	●
(C) Appropriate resources for defeating intruders	●
(D) Expend significant energy in building massive frames	Competitors
(E) Have a comparatively short life	●
(F) Multiply in large quantities	
(G) Have a myriad of natural adversaries	●

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## CHAPTER 04 | Reference

### Overview

Reference 문제는 주어진 지시어가 실제로 가리키는 지시 대상이 무엇인지를 선택하는 문제 유형이다. 지시어는 글의 간결성과 응집성(coherence)을 확보하기 위해 똑같은 단어를 반복해서 사용하지 않고 '대신 사용'하는 대명사 등을 일컫는 말이다. 따라서 문장의 의미를 올바르게 이해하기 위해서는 지시어가 가리키는 대상이 무엇인지를 정확하게 파악해야만 한다.



Reference 문제를 풀기 위해서는 지시어로 자주 쓰이는 여러 표현들의 쓰임을 익히고 문맥 속에서 그 지시어가 지칭하는 대상을 찾는 연습이 필요하다.

Reference 문제는 보통 한 지문당 1개의 문제가 출제된다.

### Types of Questions

지문에 어휘 또는 구가 음영 처리되어 있으며 4개의 보기가 주어진다.

Reference 문제의 전형적인 질문 유형은 아래와 같다.

- The word  in the passage refers to
- The phrase  in the passage refers to



## 전략 1 지시어가 가리키는 지시 대상을 지시어 주변에서 찾는다.

지시 대상은 문제에 주어진 지시어보다 앞서 언급되는 것이 일반적이므로 문제로 나온 지시어보다 앞의 문장 또는 문단을 검토하여 지시어가 가리키는 대상을 확인한다.

Ex A human **brain** performs many operations simultaneously. It monitors bodily functions, perceives the environment, and produces speech all at the same time.

→ 지시어 it이 가리키는 것은 지시어 보다 앞서 언급된 brain (a human brain)이다.

간혹, 지시어가 지시 대상보다 먼저 나오는 경우가 있는데, 이는 아래 예문과 같이 한 문장 내에서 주절의 주어 를 대명사로 취하여 부사구(절) 등이 콤마(,) 앞에 나오는 경우이다.

Ex In their report, **the biotech companies** claim that the improved technology is a solution to a serious drawback of genetically modified crops.

→ 지시어 their가 가리키는 것은 지시어보다 뒤에 언급되는 주절의 주어 the biotech companies이다.

## 전략 2 각 지시어의 성격을 파악하면 지시 대상을 좀 더 쉽게 찾을 수 있다.

토플에 자주 나오는 지시어의 쓰임과 특성을 잘 익혀두면 그 각각의 지시 대상을 쉽게 파악할 수 있다.

### ● 인칭대명사

자주 출제되는 인칭대명사로는 단수에 쓰이는 it, its와 복수에 쓰이는 they, their, them이 있다.

Ex As the trade **winds** pass over the ocean at a rate of 11-13 miles per hour, **they** displace some of the warmer surface water in their path, creating a 0.5 meter difference in sea level in the western Pacific.

→ 복수를 나타내는 인칭대명사 they가 가리키는 것은 winds이다.

### ● 지시대명사

자주 출제되는 지시대명사로는 단수에 쓰이는 this, that과 복수에 쓰이는 these, those, 단수와 복수 모두에 쓰이는 the former, the latter가 있다.

Ex During Jackson's second term, his popularity compelled his opponents to unify themselves into what became known as the Whig Party, a collective that proposed a sharply contrasting **ideology** to that of the ruling party.

→ Ruling party의 that이 Whig Party의 ideology와 contrasting 되는 것이므로, that이 가리키는 것은 앞서 언급된 ideology이다.

Ex There are two types of looms, which are the **ground loom** and the warp-weighted loom.  
The former first came into use in North Africa.

→ The former는 '전자'를 의미하므로 두 대상 중 먼저 언급된 ground loom을 가리킨다.

#### ● 지시형용사

주로 this/that + 단수명사, these/those + 복수명사의 형태로 출제되며 지시형용사 뒤에 나오는 명사를 통해 지시 대상을 쉽게 찾을 수 있다.

Ex The world of the **crustaceans** is a world of bizarre shapes and adaptations. These **animals** are best-known for their hard outer shell.

→ 지시형용사 + 명사의 형태를 갖춘 these animals가 가리키는 것은 앞서 언급된 the crustaceans이다.

#### ● 부정대명사

자주 출제되는 부정대명사로는 some, others, one, another, none 등이 있으며, 특히 others는 'other + 복수명사'를 줄인 말로 some과 짝을 이루어 쓰이는 표현이다. 또한 one과 another 역시 자주 짝을 이루어 사용된다.

Ex During the cloth-making process, the harnesses raise **some warp yarns** and lower **others**.

→ Some warp yarns와 others는 대비되는 것으로 others는 some과 짝을 이루어 사용되고 있으므로 others가 가리키는 것은 warp yarns이다.

Ex For many animals, moving the body from **one place** to **another** is one of the most important everyday tasks.

→ Another는 one과 짝을 이루어 사용되는 대명사로 another가 가리키는 것은 place이다.

#### ● 관계대명사

보통 관계대명사가 가리키는 것은 바로 앞의 선행사인 경우가 많다. 자주 출제되는 관계대명사로는 who, which, that이 있다.

Ex Insects become scarce in the winter in Northern latitudes, so **insectivorous birds**, **which** are dependent upon insects for their diet, must move closer to the equator.

→ 관계대명사 which는 바로 앞의 선행사 insectivorous birds를 가리킨다.

#### ● 지시부사

자주 출제되는 지시부사로는 장소를 나타내는 there와 시간을 나타내는 then이 있다.

Ex Einstein moved to **Berlin** in 1914 with his wife and two sons to continue his research and lecture. Unhappy with life **there**, his wife Mileva returned to Switzerland.

→ There은 장소를 나타내는 지시부사로 앞 문장의 Berlin을 가리킨다.

**전략 3** 예상 답을 지시어 자리에 대입하여 해석한 후 문맥이 자연스러운지 확인한다.

예상 정답을 고른 후에는 반드시 그 답을 지시어 자리에 직접 대입하여 문장이 자연스럽게 해석되는지를 검토해 봐야 한다. 만약 해석을 했을 때 문맥상 연결이 자연스럽지 않으면 오답이다.

Ex Bryophytes are considered the simplest plants, in part because they are the only nonvascular plants. Since they have no means of transporting water, essential minerals, and dissolved sugar for extensive distances within their bodies, bryophytes are typically quite small. Although **some** possess a cuticle, **others** do not and instead absorb water directly through the surfaces of their leafy shoots. They generally require a moist environment for active growth and reproduction, although a few bryophytes are tolerant of dry areas.

Q: The word **others** in the passage refers to

- (A) plants
- (B) minerals
- (C) bodies
- (D) bryophytes

➔ 부정대명사 **others**는 **some**과 짝을 이루는 대명사로 여기서 **some**과 **others**는 원래 **some bryophytes**와 **other bryophytes**이다. 즉, **others**가 가리키는 것은 앞 문장의 주어인 (D) **bryophytes**이다.

문맥이 자연스러운지 확인

Bryophytes를 **others** 자리에 대입하면 '일부 선태류 식물들은 상피를 가지고 있지만, 다른 선태류 식물들은 그렇지 않고 대신 잎이 무성한 가지의 표면을 통해 물을 직접 흡수한다' 라고 해석되어 문맥이 자연스럽다.

**Tip** 토플에는 4개 보기가 모두 지시어와 수 일치되어 나오므로 지시어가 지시 대상과 수 일치되는지 여부를 가지고 문제를 풀 수는 없다는 점을 명심해야 한다.



## Hackers Strategy Application

Broadly defined as the geographical limit to forest survival in a mountain environment, the timberline is an ecotone between the alpine region above and the boreal forest below. Because timberline occurs normally in areas where the average daily summer temperature is quite cool, it can fluctuate in its latitudinal location based on proximity to the Equator, as seen by the Arctic treeline that forms a ring around the Arctic Ocean, and altitude. Therefore, despite mitigating precipitation, the timberline should appear slightly higher in the mountainous equatorial regions. Yet in North America, this transitional zone is relatively low due to cooler atmospheric climate, and presents at about 3,500 meters (11,500 feet) above sea level, making it more accessible for studies by humans. Ongoing research has shown that there are several factors that stimulate the creation of a timberline. Certainly the difference in elevation, affecting the amount of biologically useful thermal energy, is the primary agent for inhibiting tree maturation. Minimum summer temperatures dictate the length of season, or number of days that a plant is able to grow. Topography also plays a role because temperature variations are affected by convex southern-facing ranges with better solar radiation saturation or by descending cold air currents in the northern reaches, for example.

1. The phrase **this transitional zone** in the passage refers to

- (A) Equator
- (B) ring
- (C) altitude
- (D) timberline

2. The word **that** in the passage refers to

- (A) meters
- (B) studies
- (C) humans
- (D) factors

- 1 전략 1 적용 Because timberline occurs normally in areas where the average daily summer temperature is quite cool, it can fluctuate in its latitudinal location based on proximity to the (A) **Equator**, as seen by the Arctic treeline that forms a (B) **ring** around the Arctic Ocean, and (C) **altitude**. Therefore, despite mitigating precipitation, the (D) **timberline** should appear slightly higher in the mountainous equatorial regions. Yet in North America, this transitional zone is relatively low due to cooler atmospheric climate, and presents at about 3,500 meters (11,500 feet) above sea level, making it more accessible for studies by humans.

보기로 제시된 어휘들은 모두 지시어와 수 일치가 되어 있고 지시어의 앞에 위치해 있다. 문맥상 this transitional zone이 가리키는 것은 (D) timberline이다.

전략 2 적용 지시형용사 this 뒤에 오는 명사 transitional zone을 통해 이것이 가리키는 지시 대상을 유추해 볼 수 있다.

전략 3 적용 This transitional zone 자리에 timberline을 대입하여 해석하면 문맥이 자연스럽다.

‘하지만, 북미에서 수목 성장 한계선은 더 서늘한 대기 기후 때문에 상대적으로 낮으며 해발 3,500 미터에서 나타나고 이것은 인간의 연구 접근성을 용이하게 한다.’

정답 (D)

- 2 전략 1 적용 Yet in North America, this transitional zone is relatively low due to cooler atmospheric climate, and presents at about 3,500 (A) **meters** (11,500 feet) above sea level, making it more accessible for (B) **studies** by (C) **humans**. Ongoing research has shown that there are several (D) **factors** that stimulate the creation of a timberline.

보기로 제시된 어휘들은 모두 that 자리에 넣었을 때 관계대명사 that 절의 동사와 수 일치가 되며 모두 지시어의 앞에 위치해 있다. 문맥상 that이 가리키는 것은 (D) factors이다.

전략 2 적용 관계대명사의 선행사는 주로 바로 앞에 오는 명사이므로 that이 가리키는 지시대상을 쉽게 짐작할 수 있다.

전략 3 적용 That 절의 관계대명사 that에 factors를 대입하여 해석하면 문맥이 자연스럽다.

‘진행중인 연구에 따르면, 수목 성장 한계선 형성을 유발하는 여러 요인들이 있다.’

정답 (D)

# HACKERS PRACTICE

- Read each passage and choose the word or phrase that the highlighted word or phrase in the passage represents.

1. Even though vitamins vary in their chemical structures and do not produce usable energy directly, they do enable enzymes to release energy from carbohydrates, proteins, and fats. They are coenzymes or **integral** parts of coenzymes, which means that they function as catalysts in specific metabolic functions within cells.

Answer \_\_\_\_\_

2. The cookie cutter shark is thought to utilize a bioluminescent patch on its underbelly to appear as a small fish to large predatory fish like tuna and mackerel. When these fish try to **consume** the "small fish," they are bitten by the shark.

Answer \_\_\_\_\_

3. Virtually all bivalved mollusks, including clams, are capable of secreting a calcareous pearl of sorts, but only those species that contain an iridescent nacre, known as mother-of-pearl, can produce pearls that have commercial value. Clamshells do not include nacre; **hence**, their pearls lack luster and are of relatively little value.

Answer \_\_\_\_\_

4. Feathers are a diagnostic feature of avian populations, so those who see Archaeopteryx as a bird resort to them as their main evidence since these protrusions are **exclusive** to ornithological creatures. They argue that detailed inspection shows its clavicles, which most reptiles don't even possess, fused into a wishbone, similar to latter-day fowl.

Answer \_\_\_\_\_

## Vocabulary

The word  in the passage is closest in meaning to

- |             |                |                |                   |                  |
|-------------|----------------|----------------|-------------------|------------------|
| 1 integral  | (A) excitable  | (B) negligible | (C) indispensable | (D) submissive   |
| 2 consume   | (A) spend      | (B) devour     | (C) absorb        | (D) waste        |
| 3 hence     | (A) decisively | (B) eventually | (C) later         | (D) consequently |
| 4 exclusive | (A) seductive  | (B) decomposed | (C) peculiar      | (D) perilous     |



5. DNA (Deoxyribonucleic acid) is a nucleic acid that contains the genetic instructions specifying the biological development of all cellular forms of life. It is often referred to as the molecule of heredity, as it is responsible for the genetic propagation of most inherited **traits**. During reproduction, it is replicated and transmitted to the offspring.

Answer \_\_\_\_\_

6. Organisms vary from microscopic soft-bodied protists to large creatures with **massive** skeletons. Organisms are constructed of an enormous variety of substances, all of **them** under selection for subsistence during life.

Answer \_\_\_\_\_

- Read each passage and choose the word or phrase that the highlighted word or phrase in the passage represents.

7. The Cahuilla people live in the Sonoran Desert and Mojave Desert regions of Southern California. Mesquite beans and pine nuts were important staples of their hunting and gathering subsistence, but some crop cultivation such as corn, beans, and squash was also practiced in aboriginal times. Along with other California cultures, the Cahuilla produced the best basketry in the world. This art form, which **flourished** in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, was almost lost. However, it has recently been revived, especially in association with the tribally controlled Malki Museum on the Morongo Reservation.

Answer \_\_\_\_\_

**Vocabulary** The word  in the passage is closest in meaning to

- |              |              |              |                 |                 |
|--------------|--------------|--------------|-----------------|-----------------|
| 5 traits     | (A) features | (B) issues   | (C) impairments | (D) deceptions  |
| 6 massive    | (A) opulent  | (B) colossal | (C) dogged      | (D) broad       |
| 7 flourished | (A) boomed   | (B) flaunted | (C) stung       | (D) blotted out |

8. Cinder cones are mounds that are formed by streaming gases that carry lava blobs and ribbons into the atmosphere to create lava fountains. The lava blobs commonly harden during flight through the air before landing on the ground. If gas pressure drops, the final stage of building a cinder cone may be a lava flow that breaks through the base of the cone. Longer eruptions result in taller cones. Some are no taller than a few meters and others rise to as high as 610 meters or more, such as Paricutin volcano, Mexico, that was a nearly continuous eruption from 1943 to 1952 and eventually destroyed the village.

Answer \_\_\_\_\_

9. In those fish species in which artificial fertilization has been successful, the process sometimes requires injections of various compounds, chiefly mammalian hormones and salmon pituitary extract, into the fish to induce ripening of sperm and eggs. The amount and kinds of materials injected depends on the size and species of fish used. When the eggs are ready to be fertilized, they are stripped from the female fish by pressure applied to the abdomen and are then placed in a small bowl. Sperm is similarly stripped from the males and the two are mixed together to effect fecundation. If done correctly, a large percentage of the eggs are usually inseminated. These are aerated and incubated until they hatch.

Answer \_\_\_\_\_

10. Spain's notions of conquest, imperialism and Catholicism – which lay like stratified bedrock beneath almost nine centuries of her history – defined her exploration and colonization of the lands of the Pueblo peoples. Her settlers, many considering themselves aristocrats, came by caravan, beginning in 1598. They rode horses descended from Spanish stock; carried cannon and swords from Europe; used rudely crafted two-wheeled ox-drawn wooden carts for conveyance; and drove great herds of livestock. As "European aristocrats," they felt culturally and morally superior to the Puebloans. They intended to recast the Puebloan peoples into Spanish subjects and expected the Puebloans to give allegiance to Spanish custom and law. Most of all, in their unshakable faith, they meant to convert the "heathen" Puebloans to Catholicism and to abolish the ancient religious beliefs.

Answer \_\_\_\_\_

**Vocabulary** The word        in the passage is closest in meaning to

- |              |                   |                   |                  |               |
|--------------|-------------------|-------------------|------------------|---------------|
| 8 continuous | (A) congenial     | (B) uninterrupted | (C) occasional   | (D) innocuous |
| 9 effect     | (A) disclose      | (B) install       | (C) complete     | (D) disrupt   |
| 10 rudely    | (A) coarsely      | (B) unusually     | (C) customarily  | (D) markedly  |
| allegiance   | (A) encouragement | (B) flair         | (C) underpinning | (D) fidelity  |

11. Dreaming is a mental activity associated with the rapid-eye-movement (REM) period of sleep. It is commonly made up of a number of visual images, scenes, or thoughts expressed in terms of seeing rather than in those of the other senses or in words. Electroencephalograph studies, measuring the electrical activity of the brain during REM sleep, have shown that young adults dream for 1 1/2 to 2 hours of every 8-hour period of sleep. Infants spend an average of 50% of their sleep in the REM phase, a figure which decreases steadily with age.

Answer \_\_\_\_\_

12. Neolithic humans about 10,000 years ago first used native copper as a substitute for stone. The Egyptians and the Sumerians invented metallurgy, first reducing ores with fire and charcoal around 4000 B.C. Copper was intentionally alloyed with tin as bronze about 3500 B.C., and this harder metal was so universal in early history that one period is even known as the Bronze Age. Copper is easily worked and is remarkably ductile. It can be cold-rolled down to one one-thousandth inch in thickness, and, by cold drawing, its length can be increased as much as 5,000 times. Hence it is an ideal metal for making wire.

Answer \_\_\_\_\_

13. In Ancient Greece, the prevailing religious traditions centered around Dionysus, a savior god who was associated with the sowing and reaping of corn, the production of grapes, and intoxication. Patrons held seasonal festivals in his honor, the most important of which was the autumn wine tasting celebration, known as the Dionysus Festival, and this included the recitation of choric poems or hymns. Revelers chanted odes, called dithyrambs, to their illustrious god while a priest would respond in a symbolic interaction between humans and the spirits. Due to its popularity within the higher and lower social classes, by the 6<sup>th</sup> century B.C., the Corinthian king established a dithyramb competition and invited a select group of poets to compose and perform these pseudo-dramas; for the first time the plays were freed from their roots in religious rituals and transformed into full-fledged works of art. The changing theater environment altered the general public attitude and thus triggered a newfound mass interest that would bring about refinement of the art form.

Answer \_\_\_\_\_

**Vocabulary** The word  in the passage is closest in meaning to

- |               |                |                 |                 |                 |
|---------------|----------------|-----------------|-----------------|-----------------|
| 11 associated | (A) connected  | (B) sheared     | (C) composed    | (D) organized   |
| 12 substitute | (A) stock      | (B) replacement | (C) basis       | (D) compound    |
| intentionally | (A) invariably | (B) sedulously  | (C) consciously | (D) unwittingly |
| 13 attitude   | (A) facility   | (B) object      | (C) concern     | (D) stance      |



- Read each passage and answer the corresponding questions for each.

14. Although countless kinds of bacteria are found throughout the sea, they occur in the greatest concentration at the surface and at the bottom, with the mid waters having the lowest. The reason for this is that the distribution of decomposing organic matter, on which the bacteria thrive, is most clustered at these depths. Oceanic bacteria are extremely important insofar as they assist with decomposition of organic matter to water-soluble materials which serve as basic food materials for the sea plants, which in turn form the food basis for marine animals.

1 The word which in the passage refers to

- (A) bottom
- (B) reason
- (C) distribution
- (D) organic matter

2 The word they in the passage refers to

- (A) waters
- (B) depths
- (C) bacteria
- (D) materials

15. Considered by most as a purely dietary staple, corn is actually the basis of a number of products utilized widely throughout the United States and many other nations as well. The majority of corn, around 60% of total annual production, is processed as feed for farm animals such as cattle and pigs. Only about 3% is readied for human consumption in the form of whole ears or cereal, while roughly 8% of it is used in chemical sweeteners, or other additives such as corn starch. The rest of the annual output of corn is exported or fermented to make the fuel alcohol ethanol, which pollutes significantly less than its counterpart, gasoline.

1 The word it in the passage refers to

- (A) corn
- (B) feed
- (C) consumption
- (D) cereal

**Vocabulary** The word   in the passage is closest in meaning to

- |                 |                    |                   |                  |                   |
|-----------------|--------------------|-------------------|------------------|-------------------|
| 14 distribution | (A) transportation | (B) circulation   | (C) dispersion   | (D) supply        |
| extremely       | (A) vaguely        | (B) prohibitively | (C) respectively | (D) mainly        |
| 15 roughly      | (A) approximately  | (B) dubiously     | (C) eagerly      | (D) painstakingly |

16. After being virtually abandoned, fusion power is poised for a comeback. Nuclear fusion is the process that powers the stars. For more than 50 years, scientists have been trying to bring that power down to Earth. Fusion generators are appealing because they produce none of the pollutants associated with fossil- and nuclear- fuel power plants. Researchers at the Princeton Plasma Physics Laboratory in Plainsboro, New Jersey, estimate that a 1,000-megawatt nuclear fusion plant would produce about 4 pounds of waste a day, compared to 31,000 tons from a coal-fired plant of a similar capacity. In addition, while some radiation would be created, there would be none of the lethal radioactive wastes formed when fission reactors split uranium atoms.

1 The word *they* in the passage refers to

- (A) stars
- (B) scientists
- (C) generators
- (D) plants

17. By its very essence, eucalyptus has the scent of freshness and purification. Consequently, its oil has been used in both folk and modern medicine. The essential oil of eucalyptus is obtained from the leaves and branches of the eucalyptus tree, *Eucalyptus globulus*, also known as the “fever” tree. A steam distillation process is used to extract the oil from the tree parts, and some 110 pounds of the plant material is required to produce about two pounds of oil. The medicinal properties of the oil were most likely first discovered by the Aborigines, the native inhabitants of Australia, from which the tree originates. They had used it as a remedy for skin problems and fevers. Modern herbalists still rely on the extract to treat these conditions as well as colds and other respiratory ailments. On a psychological level, it helps to combat certain types of fatigue and dispel the causes of mental sluggishness.

1 The word *its* in the passage refers to

- (A) essence
- (B) eucalyptus
- (C) scent
- (D) purification

2 The phrase *these conditions* in the passage refers to

- (A) skin problems and fevers
- (B) colds and other respiratory ailments
- (C) types of fatigue
- (D) causes of mental sluggishness

**Vocabulary** The word  in the passage is closest in meaning to

- |               |                |                     |               |                  |
|---------------|----------------|---------------------|---------------|------------------|
| 16 abandoned  | (A) discharged | (B) failed          | (C) retrieved | (D) relinquished |
| estimate      | (A) gauge      | (B) conclude        | (C) propose   | (D) approve      |
| 17 properties | (A) prospects  | (B) characteristics | (C) outlooks  | (D) assets       |

18. Communication with the spiritual world could take place on an individual level, and this would manifest in vision quests, where a young man (rarely a woman) was sent on a solitary vigil, and by fasting and the recitation of prayer, he would enter into a dream-like trance to visit a supernatural land, the qualities of which repeatedly appeared in art. For the most part, this unusual state evoked a metaphysical reaction wherein the partaker would have a significant interaction with an animal creature, generally considered a guardian spirit that would give advice and teach songs. Once the ritual was completed, he would return to the waking world and attempt to recreate these visions by painting on rock walls, animal hide, or wood. Aesthetic qualities varied based on the talent of each artist, but the illustration of experience was an essential part of the vision quest and stimulated complete integration of the religious and the temporal nature of the tribe.

1 The word this in the passage refers to

- (A) communication
- (B) world
- (C) level
- (D) vigil

2 The phrase this unusual state in the passage refers to

- (A) fasting
- (B) prayer
- (C) trance
- (D) interaction

**Vocabulary** The word        in the passage is closest in meaning to

- |             |              |                |              |                |
|-------------|--------------|----------------|--------------|----------------|
| 18 solitary | (A) serene   | (B) separated  | (C) shabby   | (D) sensuous   |
| evoked      | (A) strained | (B) transacted | (C) educed   | (D) upbraided  |
| temporal    | (A) secular  | (B) prone      | (C) moderate | (D) reciprocal |



19. The method of painting known as fresco is ideal for murals or paintings on large permanent surfaces. The earliest known fresco paintings were done on limestone walls of caves. In ancient times, the painting medium used was tempera, a mixture consisting of pigments extracted from minerals, egg yolk, which was used as an adhesive, and water. As fresco painting evolved, painters began painting murals on wall surfaces made of wet plaster. This allowed for more flexibility in the use and location of frescos for decorative purposes. Two techniques of fresco, *secco* or dry fresco and *buon* or true fresco, are used in making murals. The former is a superficial process that does away with the complex preparation of the wall that is necessary in true fresco. In true fresco, a specially prepared plaster made of limestone, sand and marble dust is spread onto a wall. If it is properly prepared, it will hold its moisture for many hours. The painter then applies color to it. The color is absorbed into the surface, and as the wall dries and sets, the pigment particles become bound along with the lime and sand particles of the plaster. The result is a brilliant color that is permanent and resists aging.

1 The phrase The former in the passage refers to

- (A) flexibility
- (B) location
- (C) *secco*
- (D) *buon*

2 The word it in the passage refers to

- (A) plaster
- (B) dust
- (C) wall
- (D) moisture

**Vocabulary** The word        in the passage is closest in meaning to

- |           |              |                    |                  |                |
|-----------|--------------|--------------------|------------------|----------------|
| 19 ideal  | (A) stunted  | (B) wizened        | (C) microscopic  | (D) exemplary  |
| extracted | (A) touted   | (B) drawn out      | (C) berated      | (D) torn apart |
| properly  | (A) suitably | (B) overwhelmingly | (C) fractionally | (D) robustly   |

정답 p.418

## [1] Placebo Effect

- 1 ➡ The etymology of the word *placebo* is derived from the Latin verb for “I shall please,” and in the classical sense, a placebo is an imitation medicine that a doctor gives to calm an anxious patient, or to placate a persistent one perhaps demanding pills the physician is unwilling to administer. A placebo contains no pharmacological substances and therefore strictly speaking, it is not categorized as a medicament. However, a patient is led to believe that something more than mere sugar pills is being prescribed to alleviate or even cure a health condition, thus indicating that it has more to do with the power of suggestion coupled with the strength of a patient’s belief in an ultimate recovery.
- 2 Medical practitioners in favor of doling out placebos are certain that more powerful than their actual diagnosis of a patient is the prescription slip containing reassurance to a patient that a particular ailment can be overcome. Studies confirm this conviction by showing that up to 90% of patients who seek medical attention are suffering from self-limiting disorders that are well within the range of the body’s own power to heal. Both researchers and physicians who vouch for the virtue of placebos concede that there is still a lot that remains unverified about the psychological power invested by the human mind that causes placebos to work, but clearly the patient’s beliefs and the physician’s attitude both seem to play a key part, including the doctor’s ability to gain the patient’s full confidence in the dummy drug. These are all vital factors in maximizing the performance of a placebo.
- 3 According to records on file at the U.S. Food and Drug Administration (FDA), 35% of patients who have been allotted placebos throughout drug trials claim long-term relief from symptoms, thereby astonishing researchers with this considerable success rate in the fight against disease. Analyses and interpretation of the results indicate that the simple process of administering a placebo without a patient’s prior knowledge has direct and often beneficial results; yet despite what the reports reveal, the majority of medical researchers strongly oppose this practice, suggesting it violates doctor-patient relationships. Medical ethics standards maintain that the notion of trust should be paramount and doctors are expected to convey the truth, but on occasion, some are faced with the dilemma of how to remain wholly truthful to someone undergoing medical supervision while acting in their best interests. A number of researchers have called into question the legitimacy of some doctors’ discretionary tactics used in the treatment of particular cases. Misinformation has been reported to work in the opposite direction, as in the example where practitioners are tempted to paint a more optimistic picture in order to convince patients indisposed to undertake a more aggressive treatment like chemotherapy, which in retrospect they may not have chosen to submit to had they had access to information about their rate of cancer and their body’s actual condition.
- 4 Further studies report of some patients learning that they have been given placebos in

place of clinically tested and approved drugs, thus breaching the trust established in their physicians in some cases and inducing the reverse “nocebo” effects to occur in others. This exacerbates further a patient’s medical state and occasionally accelerates causes leading to death. The actual use of placebos in clinical practice has become increasingly uncommon due to possible malpractice suits, and they are almost exclusively used in research where the subjects are now more likely to be advised in advance of the possible risks and benefits of a treatment. Along with this, doctrines and policies are implemented to ensure that informed consent is observed, thus aligning standards for medical research and practice with the need for further investigation into the so-called placebo effect.

1. The word placate in the passage is closest in meaning to
  - (A) addle
  - (B) mesmerize
  - (C) appease
  - (D) incriminate
2. The word one in the passage refers to
  - (A) sense
  - (B) placebo
  - (C) doctor
  - (D) patient
3. According to paragraph 1, for which of the following reason is a placebo not classified as a real drug?
  - (A) It is not prescribed by a practitioner.
  - (B) It lacks any medicinal ingredients.
  - (C) It does not affect a patient’s health.
  - (D) It merely depends on a patient’s faith.

Paragraph 1 is marked with an arrow [➡].



4. The word **it** in the passage refers to
- (A) placebo
  - (B) medicament
  - (C) health condition
  - (D) recovery
5. The word **that** in the passage refers to
- (A) medical attention
  - (B) success
  - (C) psychological power
  - (D) human mind
6. The phrase **this practice** in the passage refers to
- (A) being dispensed with placebos
  - (B) the fight against disease
  - (C) analyses and interpretation of the results
  - (D) administering a placebo
7. The phrase **indisposed to** in the passage is closest in meaning to
- (A) contented to
  - (B) reluctant to
  - (C) forced to
  - (D) stimulated to
8. The word **they** in the passage refers to
- (A) researchers
  - (B) doctors
  - (C) practitioners
  - (D) patients
9. The word **others** in the passage refers to
- (A) studies
  - (B) drugs
  - (C) cases
  - (D) effects
10. According to the passage, because of the threat of litigation, placebos
- (A) are only used by physicians who take a potential risk of malpractice
  - (B) are required to reduce their anticipated reverse effects on patients
  - (C) are being thoroughly investigated by doctors on their components
  - (D) are rarely administered in direct medical treatment of patients

11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The use of placebos is a controversial treatment method that appears to be effective in certain situations.**

- 
- 
- 

Answer Choices

- |  |   |
|--|---|
| (A) Whether a placebo is able to effectively treat a disease is dependent on which substances are included.                              | (D) Success of a placebo stems from the fact that it seems to positively influence the body's capability to heal itself.  |
| (B) Despite the desirability of transparency in medical practices, it is difficult for practitioners to share information with patients. | (E) A concern over using a placebo is that it causes patients to believe that their medical condition is not so serious.  |
| (C) Ethical problems arise when a doctor employs a placebo as a medical cure with keeping a patient ignorant of it.                      | (F) When patients discover that they have been administered a placebo, adverse reactions occur which are sometimes fatal. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.423

## [2] Blood Cells

- 1 Single cellular organisms are able to directly absorb gasses and dispose of wastes into their environment, but more complex creatures need to have a system to allow interior cells, far removed from direct exposure with the external system, some way to replenish their nutrients. Methods of internal tubing using spicules to straightly expose the interior cells to air are inefficient and limit the size of the organisms, so in order to regulate their internal environments, large animals need other precise networks. They have a closed circulatory system filled with liquid that prevents the body from dehydration, but more importantly they utilize specialized cells to facilitate vital gas exchange and defend themselves from viral and bacterial attacks.
- 2 The most numerous cells found in the blood are erythrocytes, commonly referred to as red blood cells whose level remains relatively stable unless an organism is exposed long-term to low oxygen environments, and which are significantly smaller than the other cells in the body. These biconcave disks are actually straw colored and only turn their characteristic red due to the presence of oxygenated hemoglobin. They are produced in the bone marrow by blood-forming stem cells and since they lack nuclei, they are unable to replicate themselves. They are constantly in the process of being made, since these red blood cells generally do not last more than three months, and while some may be stored in the spleen to be released at times of heightened stress, the majority of them are in constant circulation in the vascular systems.
- 3 ➡ While in motion around the body, each red blood cell, packed with millions of hemoglobin molecules, is responsible for transporting oxygen to all the cells within the body and removing carbon dioxide. Its small size and extreme flexibility allows it to access extraordinarily small spaces like capillaries (tiny blood vessels) where it releases the oxygen needed for respiration and bonds to the waste, carbon dioxide, which is excreted by the cells, in a process that is then reversed when the erythrocytes return to the lungs.
- 4 Much larger but less numerous are the leukocytes, or white blood cells, which can keep off foreign invaders and infectious diseases as part of the immune system and be differentiated into many sub-categories. Like red blood cells, these are created from stem cells in the bone marrow, but they have a nucleus that allows them to duplicate while stored in the thymus\*. This is quite important since some leukocytes have a lifespan of only a week, although there are other types which can be longer lived, depending upon the level of bacterial activity in the body. Based on how much of a threat the body faces, leukocyte levels fluctuate widely, with the body keeping reserves in the lymph nodes and thymus.
- 5 The white blood cells have two different mechanisms for defending the body when an invader is detected. The simplest method is performed by a specialized type of leukocyte known as a neutrophil that will release lysosomal enzymes from stores of internal granules that cause the bacteria to break down, at which point other cells will clean up the debris. The other is called phagocytosis, by which the T cell leukocytes ingest the invader and thus eliminate it, a process that is able to be repeated until the buildup of toxins acquired overwhelms the cell, leading to its demise.



- 6 Once the neutrophils and T cells have served their purposes, they are no longer valuable, and since they contain toxic products, they need to be swiftly removed from the body either via the lymph system, which filters and then excretes the used cells, or more directly by emitting a thick yellowish liquid from infected sites and expectorating phlegm from the lungs. In contrast, erythrocytes include valuable iron and heme, the molecular precursor to hemoglobin, so in order to be reused, these are removed by the spleen prior to their destruction.

Glossary
thymus : a ductless glandular organ at the base of the neck that produces lymphocytes and aids in producing immunity

1. The word *their* in the passage refers to
  - (A) gasses
  - (B) wastes
  - (C) creatures
  - (D) interior cells
2. The word *some* in the passage refers to
  - (A) stem cells
  - (B) nuclei
  - (C) red blood cells
  - (D) vascular systems
3. The word *heightened* in the passage is closest in meaning to
  - (A) plunged
  - (B) choked
  - (C) structured
  - (D) increased
4. The word *which* in the passage refers to
  - (A) flexibility
  - (B) oxygen
  - (C) respiration
  - (D) carbon dioxide

5. According to paragraph 3, when the red blood cells are in the lungs

- (A) they are safe from exterior attacks
- (B) they expel refuse gas and absorb oxygen
- (C) they lose their hemoglobin to the nearby tissues
- (D) they don't have to compress in size

Paragraph 3 is marked with an arrow [➡].

6. The word **these** in the passage refers to

- (A) leukocytes
- (B) invaders
- (C) diseases
- (D) red blood cells

7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) The number of leukocytes varies according to the degree of external intimidation with surpluses kept in some parts of the body.
- (B) In order to compensate for decreased leukocyte levels due to infection, the body stores white blood cells in other systems.
- (C) Without a method for keeping white blood cells in excess, the levels would change so much and endanger the organism.
- (D) The amount of white blood cells is subject to sharp fluctuations depending on the body conditions and reserve levels.

8. The word **detected** in the passage is closest in meaning to

- (A) dazed
- (B) spotted
- (C) presumed
- (D) annoyed

9. The phrase **The other** in the passage refers to

- (A) body
- (B) method
- (C) neutrophil
- (D) debris

10. According to the passage, red blood cells are recycled

- (A) before they are driven out through pus
- (B) due to their comparatively short lifespan
- (C) by T cells before they are eradicated
- (D) because they possess beneficial ingredients

11. Directions: Select the appropriate phrases from the answer choices and match them to the type of blood cells they represent. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Erythrocytes
(A) Survive for a quarter of a year at the utmost	●
(B) Contain nuclei which enable them to reproduce	●
(C) Can be regenerated automatically when they are injured	●
(D) Turn a different color when hemoglobin combined with oxygen is in existence	
	Leukocytes
(E) Check the invasion from outside harmful organisms	●
(F) Give out venomous substances when they encounter hazard	●
(G) Are in charge of gas interchange between lungs and the other body parts	

정답 p.424



### [3] Green Glaciers

- 1 On occasion, the Earth's orbit will shift and pull the planet slightly farther away from the sun than normal, causing colder weather to engulf the terrain and disallowing the usual seasonal melting that generally occurs in the spring season. During the cooler period, precipitation continues to fall, forming aggregates of oddly shaped, interlocking crystals ranging in size from several millimeters to a centimeter, which come together to generate increasingly thicker layers of ice.
- 2 ➡ The pressure and weight of the overlying layers compress the ice into denser firn which over a period of years will become glacial ice. The pressure also lowers the freezing point of water, producing melt water which flows throughout the glacier and lubricates its movement. Large sheets migrate from a higher elevation to a lower one as available melt water trickles downhill and appear dirty as they pick up gravel and sedimentary particles from the surface while moving. When they fall into the ocean, they become ice shelves forming high ridges over the sea where they pose a substantial threat to ocean traffic since only ten to twelve percent is visible while the remainder lies under the surface. Ice shelves, because of their proximity to human populations, yet unpolluted pristine compositions, tend to be the most commonly studied glacial formation. The Amery Ice Shelf floats at the head of Prydz Bay in the Indian Ocean near Antarctica and lies at the foot of the Lambert Glacier. Claimed as Australian territory in 1933 by explorer Douglas Mawson, the region supports rare ice formations in bottle-green hues. Early reports, quickly discarded due to lack of evidence, attributed the unusual green shade of some Amery icebergs to high levels of metallic compounds in the ice, leaving the causation of the color a matter of contention and sparking a series of exploratory studies.
- 3 One such expedition hypothesized that the color was the result of a visual fallacy created when normal ice, which has a blue tinge due to reflections of the sun striking the ocean waters, is illuminated by a low lying red sun as <sup>e</sup>it sets on the horizon. In an attempt to prove their hypothesis, the glaciologists made numerous spectral analytic observations at established intervals throughout an average summer day and measured the color of the iceberg under various intensities of light, repeating the test again in the spring and fall when the sun appears in alternate places in the sky. Upon completion, they discovered that the level of noticeable green did not fade or become enhanced in fluctuating sunlight, disproving the perception that the shade was an optical illusion.
- 4 ➡ Recently, a group of glaciologists proposed a new theory by suggesting that the colored areas of the glaciers are, in fact, the exposed underside of floating shelves, visible only after normal ice, melting as the Earth's orbit returns to its usual situation closer to the sun, has capsized, leaving behind a layer of greenish marine ice. It is suggested that when, like other glacial formations, marine ice undergoes densification, <sup>e</sup>it picks up biological material, including the remains of dead krill\* and water-born vegetation living close to the basal side of the freezing block which is bubble-free. It has been already well-known that red snow is caused by the incorporation of red algae *Phyllophora* into the snow layers; ergo it is feasible that a similar organism could be the primary factor in the odd coloration of green ice. One of the most common algae in the ocean surrounding the Amery Ice Shelf is

actually the single-celled, ice-dwelling *Euglena*, a photosynthetic member of the Protista Kingdom that contains a large number of green chlorophyll molecules. Exposed marine ice containing a heavy concentration of *Euglena* would appear to take on the coloration of the algae, manifesting as green glacial ice.

- 5 However plausible the notion of the marine organism causation may appear, it is still controversial and remains unproven. A thorough examination of the Amery Ice Shelf and its encompassing geography should be initiated before any final conclusions about the mysterious presence of green ice can be deduced.

Glossary
krill : shrimp-like planktonic crustaceans

- Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - Due to the falling temperatures, the unusual shape of the crystals results in thicker ice.
  - Ice layers are formed as a result of the snow that falls in cold weather and clumps in groups.
  - With increased pressure from piles of snow, large aggregates of ice are made.
  - The accumulated snow stays frozen on the ground if the frigid weather continues.
- The word which in the passage refers to
  - pressure
  - weight
  - ice
  - firm
- The word one in the passage refers to
  - freezing point
  - water
  - glacier
  - elevation

4. According to paragraph 2, ice shelves in the ocean can be an obstacle to ships because
- (A) their submerged parts are located close to human settlements
  - (B) they form ridges over the sea which can crack
  - (C) the majority of them are below the surface and unseen
  - (D) chunks of them interfere with the ships' propellers

Paragraph 2 is marked with an arrow [➡].

5. The word **pristine** in the passage is closest in meaning to
- (A) immaculate
  - (B) cordial
  - (C) mellow
  - (D) stale
6. The word **it** in the passage refers to
- (A) fallacy
  - (B) ice
  - (C) tinge
  - (D) sun
7. The word **noticeable** in the passage is closest in meaning to
- (A) perceptible
  - (B) complimentary
  - (C) pleasing
  - (D) murky
8. The word **it** in the passage refers to
- (A) group
  - (B) orbit
  - (C) marine ice
  - (D) densification
9. According to paragraph 4, Euglena affects the color of ice in the ocean
- (A) as it multiplies in the ice in large quantities
  - (B) because it diffracts light entering into the ice
  - (C) when it absorbs green wavelengths under water
  - (D) since it includes many green colored substances

Paragraph 4 is marked with an arrow [➡].



10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The appearance of green ice in the ocean near Antarctica has led to multiple theories to explain its origin.**

- 
- 
- 

Answer Choices

- |   |   |
|---|---|
| (A) It is probable that the inclusion of certain organisms in the ice is responsible for the change in ice color. | (D) Some theorized that embedded metals within the ice would cause it to appear green.  |
| (B) It is true that all glaciers pick up some debris as they condense and contain some type of colored flora.     | (E) It is likely that the pressure of the top ice layers influences the rate at which the glaciers change their color.              |
| (C) The hypothesis that the greenish hue comes out when bluish ice is lighted up at sunset was suggested.         | (F) It is claimed that the alteration in the path the Earth makes around the Sun aids in magnifying light for photosynthetic algae. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.425

#### [4] Economy

- 1 Economic opportunities create incentives for people to blueprint and develop technologies that will assist them in moneymaking ventures under the guiding principle of return on investment. Western Europe, with the instigation of the industrial era, witnessed the rise of an institution of Research and Development (R&D), which heralded in an upward shift in the rate of economic growth. Requirements for conducting R&D projects, both in the past and the present, necessitate that considerable resources are expended through systematic experimentation with the objective of ensuring future economic growth.
- 2 Throughout the ages, the state of any economy has to a large extent been determined by the resources made available to it in order to find solutions to technical problems, and all economies therefore use or have used resources to a lesser or greater extent, with earlier ones placed respectively at one end of the continuum and new market-based ones at the other end. <sup>3</sup>Today's global economy is heavily reliant on information and communication technologies to maintain its complex infrastructure of professional and personal transactions, while yesterday's subsistence economies, notably in rural tribal areas, were contingent on meeting alimentary needs through foraging and other labor-intensive techniques used in cultivation and pastoralism.
- 3 Rather than depending on money, subsistence economies relied on access to natural resources, predominantly in nomadic and less developed agrarian cultures in which people used to subsist to survive and surpluses in food were very rare. Wealth in old economies was neither decided by nor calculated in any type of currency, thus creating a reliance on resource renewal and reproduction that was in keeping with the environment. This reliance upon the environment acted as a check and prevented societies from expanding beyond what the local habitat could support. However, subsistence economies were ultimately deemed unprofitable as social evolution continued on a path that reflected mankind's need to make constant adaptations to technology in order to satisfy desired economic ends, hence ushering in new style economies.
- 4 The global market economy is a prime example of such a new economy and from its early beginnings in the local market place, it has expanded beyond the practice of simple bartering and exchange to rely on exploiting the world's natural and human resources, sometimes to the point of depletion and abuse. Making money, earning capital, and expanding one's wealth and growth are requisites for survival in a thriving global network that funnels capital into major urban centers, therein attracting business entrepreneurs who flock to cities with not only the expectation of becoming rich, but also newfound opportunities to transcend their rank and position in society. This implies that someone of a lower- or middle-class origin would be afforded the same social mobility as an upper-class individual by quickly amassing 'new money' in a market-based system.
- 5 The derogatory term, *nouveau riche*\*, is ascribed by those who have inherited 'old money' to those persons who acquire wealth within their generation and spend it conspicuously. In 1889, American economist Thorstein Veblen had coined the term "conspicuous consumption" to define the habits of an aspiring class of *nouveau riche* who wished to be

publicly observed in trivial pursuits of leisure and consumption in order to show off newly gained wealth. Veblen's theories on the new leisure class juxtaposed pecuniary and technological interests against one another, however, claiming that capitalist businessmen were not catalysts for economic development, but rather opportunists awaiting fortunes to be made on society's technological advances.

- 6 Success in a new economy is determined by people's capacity to partake in activities of consumption, as they are continually encouraged through persuasive advertising media, such as television and the Internet, to center their attention on the acquisition of material wealth. <sup>7</sup>The visible display of high-tech gadgetry in the new information age, which emerged with the close of the twentieth century and the advent of the twenty-first century, demarcates the convergence of financial and industrial interests as the hard and fast result of market-driven economies, leading to the excessive consumption of goods and services such as mobile phones and access to wireless networks, wherein digital information and communications media are symbolic of the dominant culture of the global market. It should be noted that old economies at the local level soon became obsolete, providing a clear path forward for new economies that are increasingly borderless, most notably with the rise of modern science and technology, resulting in changes that have rapidly transformed and irrevocably altered traditional ways of earning a living, accumulating assets, and obtaining new information.

Glossary
nouveau riche : French for "newly rich"

1. The word **them** in the passage refers to
  - (A) opportunities
  - (B) incentives
  - (C) people
  - (D) technologies
2. The word **ones** in the passage refers to
  - (A) solutions
  - (B) problems
  - (C) economies
  - (D) resources



3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) In order to shift from an agrarian to knowledge-based economy, a great deal of investment in information systems and infrastructure is essential.
  - (B) Previous economies concentrated on providing nourishment whereas the present day economies largely depend on knowledge and communication systems.
  - (C) The global economy is organized to benefit those with knowledge compared to past economies which principally focused on yielding a rich harvest.
  - (D) While modern economies are dependent on the exchange of information, primitive economies of the past were primarily concerned with the accumulation of labor.
4. The word predominantly in the passage is closest in meaning to
- (A) chiefly
  - (B) surpassingly
  - (C) abnormally
  - (D) evenly
5. The word their in the passage refers to
- (A) requisites
  - (B) entrepreneurs
  - (C) cities
  - (D) opportunities
6. The word it in the passage refers to
- (A) term
  - (B) old money
  - (C) wealth
  - (D) generation
7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The widespread technology in the information era displays the superiority of the market economy and contributes to the dissemination of knowledge worldwide.
  - (B) Without the great technological improvements of the past age, the market economy would not have been able to sustain its high levels of consumerism.
  - (C) Digital media has become an apparent symbol of the global market economy as an offshoot of the rapid spread of personal communications and information technology.
  - (D) Advanced devices in an information-oriented society demonstrate economic gains as the consequence of the market economy and thus promote too much spending.

8. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The change in the focus of the use of resources leads to the progress of economies.**

Answer Choices

- |  |   |
|--|---|
| (A) The world's shift to a market-based economy brought about many different types of occupations.   | (D) The main difference between the current and past economies is the need for high amounts of manual labor.                        |
| (B) Subsistence economies were for the most part dependent on the use of natural resources and money had no significant role.                            | (E) While making adjustment to technology, the global market economy takes advantage of various types of materials for advancement. |
| (C) Capitalist businessmen are considered parasitic to the economy because they are not directly involved with the instigation of pecuniary development. | (F) In market economies, accomplishment is represented by accumulation of goods through consumption.                                |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.427

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# **PART 02 | Making Inference**

Chapter 5. Rhetorical Purpose

Chapter 6. Inference

# CHAPTER 05 | Rhetorical Purpose

## Overview

Rhetorical Purpose 문제는 작가가 글에서 말하고자 하는 바를 효과적으로 전달하기 위해 사용한 표현의 의도를 가장 잘 나타내고 있는 것을 선택하는 유형이다. 여기서 rhetoric (수사학)이란, 작가가 전달하고자 하는 바를 더욱 효과적이고 분명하게 나타내기 위하여 사용하는 여러 가지 다른 표현 방식을 말한다. 문제에서는 본문에 쓰여진 특정한 단어나 구에 대하여, 작가가 어떠한 의도로 그것을 언급했는지를 묻는 형식으로 출제된다.

따라서 Rhetorical Purpose 문제를 해결하기 위해서는 단어 하나의 쓰임에도 목적이 있다는 것을 염두에 두어 글을 읽고, 작가가 왜 이 표현을 사용했는지를 작가의 입장에서 생각하여 그 의도를 이해하는 연습이 필요하다.

Rhetorical Purpose 문제는 보통 한 지문당 1~2개가 출제된다.

## Types of Questions

대개 특정 구를 언급한 이유를 물을 때는 해당 구가 지문에 음영 처리되어 있고 한 단락에 걸친 설명 방식을 물을 때는 단락 번호만이 표시된다. Rhetorical Purpose 문제의 전형적인 질문 유형은 아래와 같다.

- Why does the author mention [ ] in the passage?
- The author mentions [ ] in the passage in order to
- The author mentions [ ] in the passage as an example of which of the following?
- Why does the author quote [ ] in the passage?
- In paragraph \_\_\_\_, why does the author give details about [ ]?

간혹 본문에 언급된 특정 개념을 설명하기 위해 작가가 사용한 글의 표현 방식(논리전개 방식)자체를 묻기도 한다.

- In paragraph \_\_\_\_, the author explains [ ] by
- How does the author explain the idea of [ ] in paragraph \_\_\_\_?

**전략 1** 문제의 keyword가 언급되어 있는 부분을 지문에서 찾아 전후 글의 전개방식을 파악한다.

지문에서 사용된 여러 clue 표현들을 통해서 글의 전개방식을 파악할 수 있다.

Ex Diamonds occur in a variety of hues – colorless, white, blue, yellow, orange, red, green, pink, brown, or colored black. Diamonds with a detectable hue are known as colored diamonds. Colored diamonds contain impurities or structural defects that cause the coloration, while pure diamonds are transparent and colorless. Most diamond impurities replace a carbon atom in the crystal lattice and the most common, nitrogen, causes a yellowish or brownish tinge.

Q: Why does the author mention pure diamonds in the passage?

A: To contrast ~

→ 지문에서 pure diamonds가 언급되어 있는 문장을 보면 colored diamonds와 pure diamonds를 비교/대조하고 있는데, 이것은 접속사 while을 통해 쉽게 알 수 있다. 따라서, 작가가 pure diamonds를 언급한 이유는 colored diamonds와 비교/대조하기 위해서이다.

Ex There are several stories about how the effects of the coffee bush, which was discovered around 1000 A.D., were first observed. Among them, the most prevalent is about an Ethiopian shepherd who noticed his flock was wide-awake after eating the berries off of a certain bush. When he tried the berries for himself, he found that he also became awake and energetic. With his discovery, many tribes began to take advantage of the coffee berries. For example, members of the Galla tribe in Ethiopia produced an energy boost from mixing a certain berry with animal fat. One path or another led people to the conclusion that the coffee bean would produce certain effects upon not only their livestock, but also themselves. The desire to capture and use the effects of coffee started the quest for cultivation and production of coffee throughout the world.

Q: The author mentions members of the Galla tribe in Ethiopia in the passage in order to

A: provide an example ~

→ 지문에서 members of the Galla tribe in Ethiopia가 언급되어 있는 문장은 부족민들이 커피 열매를 활용한 예를 들고 있는데 이것은 for example을 통해 알 수 있다. 즉, members of the Galla tribe in Ethiopia가 언급된 이유는 provide an example하기 위함이다.



● 수사를 확인할 수 있는 표현

글의 전개방식		지문의 clue
설명	to explain / to describe	mean, “.”
예시	to give an example of to illustrate	for example, for instance, such as, ‘-’
분류	to identify types of to classify / to list	consist of, be one of the first, second,
비교/대조	to compare	similarly, in the same way
	to contrast	while, on the other hand, in contrast
지지/반박	to support	be supported by
	to contradict / to criticize to refute	although (even though), despite, however
부연/강조	to further develop the idea of to emphasize / to highlight	that is to say, also, in addition even, only
증명	to demonstrate / to show	because, due to
	to give a reason for	as a result, for that reason
	to give an evidence of	
의견/제안	to suggest / to present	
	to propose / to argue	

**전략 2** 지문의 논리전개 방식을 바르게 표현한 보기가 지문과 내용면에서도 일치하는지 확인한다.

논리전개 방식을 나타내는 표현 뒤의 내용 역시 지문의 정보와 일치해야 한다.

**Ex** Seawater is always on the move, traveling across the planet as if a giant conveyor belt was pulling it along, and the colder, saltier, and denser the water is, the lower it sinks. Most of the water at the bottom of the North Pacific Ocean has not been exposed to sunlight in at least 800 years and some of it has been down there for two millennia. Accordingly, oceanographers have assumed the temperature of the bottom layer is stable, impervious to atmospheric warming. **New evidence**, however, shows that the lower depths there and elsewhere have warmed significantly in recent decades.

**Q:** Why does the author mention **New evidence** in the passage?

**A:** To contradict the claim that the water at the bottom of the ocean remains unaffected by a change of atmospheric temperature

➔ 우선 지문 내의 clue를 통해 전개방식을 파악하는 전략 1을 적용하였을 때, however를 통해서 앞에 나온 내용을 반박하는 전개방식임을 예상할 수 있다. 문맥을 살펴보면, 지문에서 new evidence는 해양학자들이 해저 해수에 관해 가지고 있던 기존의 생각, 즉 해저 해수는 대기 온도 변화에 영향을 받지 않는다는 가정을 contradict하기 위해 언급되었다. 따라서 보기는 지문에 사용된 글의 전개 방식과 내용 모두를 올바르게 표현하고 있음을 알 수 있다.

### 전략 3 보기 중 오답을 확인한다.

지문에 사용된 논리전개 방식과 일치하지 않거나 지문의 내용과 일치하지 않는 내용을 포함한 보기는 오답으로 간주된다.

Ex In the past the lichen was considered a definitive example of mutualism, a symbiotic relationship equally beneficial to both species. The photosynthetic partner carries on photosynthesis, producing carbohydrate molecules for itself and the fungus, and the fungus obtains water and minerals for the photosynthetic partner as well as protects it against desiccation. In recent years, however, some biologists think that the lichen partnership is not a true case of mutualism but a controlled parasitism of the photosynthetic partner by the fungus. Microscopic examination reveals that some of the algae cells have been penetrated and destroyed by fungal hyphae.

Q: The author mentions fungal hyphae in the passage in order to

A: suggest that photosynthetic partner and fungus may not have a mutually beneficial relationship (○)

→ Fungal hyphae는 지문에서 광합성 파트너와 균류가 사실은 공생 관계가 아닐 수도 있다는 것을 suggest하기 위해 언급되었으므로 보기의 논리전개 방식과 내용 모두 지문과 일치한다.

지문의 논리전개 방식과 일치하지 않는 오답

refute the theory that the fungus parasitizes the photosynthetic partner (×)

지문에서 일부 생물학자들이 지의류의 균류가 광합성 파트너에 기생한다고 하였으므로 fungal hyphae가 균류가 광합성 파트너에 기생한다는 이론을 refute하기 위해 언급되었다는 것은 지문에 사용된 논리전개 방식을 올바르게 표현하지 않은 것이다.

지문의 내용과 일치하지 않는 오답

clarify the process by which the fungus undergoes replication (×)

균류가 복제되는 과정은 언급되지 않았으므로 지문의 내용과 일치하지 않는다.

## Hackers Strategy Application

Great apes share about 96 percent of their DNA with humans. For chimpanzees, the figure is as high as 98.4 percent. African apes are actually more closely related to humans than they are to orangutans. According to Great Ape Survival Project (GRASP), humans' relationship with apes is so close that a taxonomist from another planet would probably classify humans as an African ape species. In a recent study by Massachusetts Institute of Technology (MIT) and Washington University, scientists compared the DNA of chimpanzees and humans. By placing the two codes side by side, scientists identified 400 million molecular changes that separate humans and chimps and pinpointed 250,000 that seem to indicate differences between the two species. All told that the gene sequences differ by four percent. However, three-quarters of the differences seem to be in even "non-functional" parts of the genome, suggesting that there is only a one percent difference between the two species. Researchers say the study could help explain why chimps are resistant to several human diseases such as AIDS, hepatitis, malaria, and Alzheimer's, which could help scientists find new ways to prevent or treat the diseases in humans.

1. Why does the author mention "non-functional" parts in the passage?

- (A) To compare functions of chimps' brain to those of humans'
- (B) To emphasize that humans and chimps have very few differences
- (C) To give an example of features humans share with chimps
- (D) To show that humans and chimps bear no resemblance

Reshaping the political, social, and economic climate of each country, the Revolutions of the 18<sup>th</sup> century in France and America were both turning points in history. In the American colonies, a series of altercations, political upheavals, and economic crises shook the social environment, providing impetus for a war between the British Empire and the revolutionaries between 1775 and 1783. Shortly thereafter, similar conditions among the French sparked several conflicts, beginning in 1787 and coming to a conclusion around 1799. The American and French Revolutionary periods represent a situation wherein a build-up of intersecting conditions intensified civil unrest.

2. In the passage, the author explains the Revolutions of the 18<sup>th</sup> century by

- (A) describing the ways in which they were concluded
- (B) highlighting the role of the British Empire and France
- (C) comparing similar situations in two different countries
- (D) classifying types of the primary causes for them



- 1 전략 1 적용 강조의 부사 even을 통해 말하고자 하는 바를 강조하고 있음을 파악할 수 있다.

전략 2 적용 지문에서 "non-functional" parts가 언급된 문장의 전후 문맥을 보면, 인간과 침팬지의 유전자 배열 순서가 4% 다르지만, 이 중 3/4이 유전자 중 기능적인 역할을 하지 않는 부분에 해당하므로 둘 사이에는 오직 1%의 차이점만이 존재한다고 하였다. 따라서, "non-functional" parts는 인간과 침팬지 사이에는 차이점이 거의 없다는 것을 강조하기 위해 언급되었다. 따라서, 인간과 침팬지 사이에는 차이점이 거의 없다고 진술하고 있는 (B)가 글의 전개 방식과 내용 모두 지문과 일치한다.

- 전략 3 적용 (A) 지문의 논리전개 방식과 일치하지 않는 오답  
지문에는 침팬지의 뇌의 기능과 인간의 뇌의 기능을 비교(compare)하는 내용이 언급되어 있지 않으므로 지문의 논리전개 방식과 일치하지 않는다.
- (C) 지문의 내용과 일치하지 않는 오답  
"Non-functional" parts가 인간과 침팬지가 공유하고 있는 특징이라는 것은 지문의 내용과 일치하지 않는다.
- (D) 지문의 내용과 일치하지 않는 오답  
인간과 침팬지 사이에 유사점이 전혀 없다는 것은 지문의 내용과 일치하지 않는다.

정답 (B)

- 2 전략 1 적용 지문에서 작가는 Revolutions of the 18<sup>th</sup> century를 American colonies와 France를 통해 비교(compare)하여 설명하고 있으며, 이는 similar 등의 표현으로 확인할 있다.

전략 2 적용 두 나라에서의 유사한 상황을 비교하여 설명하고 있다고 진술하고 있는 (C)가 논리전개 방식과 내용 모두 지문과 일치한다.

- 전략 3 적용 (A) 지문의 내용과 일치하지 않는 오답  
혁명이 종결된 방식은 지문에 언급되지 않았으므로 지문의 내용과 일치하지 않는다.
- (B) 지문의 내용과 일치하지 않는 오답  
영국과 프랑스의 역할을 강조하고 있다는 것은 지문의 내용과 일치하지 않는다.
- (D) 지문의 논리전개 방식과 일치하지 않는 오답  
혁명이 일어난 주요 원인들의 유형이 분류(classify)되어 있다는 것은 지문의 논리전개 방식과 일치하지 않는다.

정답 (C)

# HACKERS PRACTICE

● Read each passage and answer the corresponding question for each.

1. When the colonists settled along the eastern seaboard of North America during the 17<sup>th</sup> century, their European traditions accompanied them. Because their domestic customs reflected this Old World heritage, it is small wonder that the style and construction of their furniture also was derived from European sources. Settlers arriving from different countries brought with them the training and the styles of their native lands, so, for instance, 17<sup>th</sup> century New England furniture displays a strong English flavor, while that made in New York reveals the tastes of the Dutch.

● Why does the author mention New England furniture in the passage?

- (A) To argue that the English settlers were unconcerned with the tastes of the Dutch
- (B) To provide an example of furniture whose style originated from Europe
- (C) To support the claim that the colonists adjusted to their new homes well
- (D) To note an exceptional piece of art constructed without the aid of Britain

2. Soil, which is composed of mineral particles, organic material, water, and air, is a valuable natural resource on which humans depend for food. Water, wind, ice, and other agents cause soil erosion, the wearing away, or removal of soil from the land. Water and wind are especially effective in removing soil: rainfall loosens soil particles that can then be transported away by moving water, while wind loosens soil and blows it away, particularly if the soil is exposed and dry.

● The author mentions rainfall in the passage in order to

- (A) explain a process that can erode land
- (B) contrast rainfall with mineral particles
- (C) argue for the advantage of preventing erosion
- (D) give an example of how moving water penetrates soil

## Vocabulary

The word  in the passage is closest in meaning to

- |            |              |              |                  |                   |
|------------|--------------|--------------|------------------|-------------------|
| 1 heritage | (A) bounty   | (B) legacy   | (C) novelty      | (D) sprightliness |
| flavor     | (A) additive | (B) specimen | (C) character    | (D) adhesion      |
| 2 loosens  | (A) debases  | (B) hinders  | (C) remonstrates | (D) unties        |

3. Some have attempted to distinguish dialects from languages by saying that dialects are mutually comprehensible while languages are not. However, this concept may not be as clear-cut as it may at first seem. Italian speakers and Spanish speakers, for example, may be able to understand a considerable proportion of each other's closely-related Romance languages, whereas Lombards and Sicilians, speaking what are described as dialects of the same language, may encounter considerable barriers to mutual comprehension.
- Why does the author mention Lombards and Sicilians in the passage?
    - (A) To present Italian and Spanish speakers' linguistic habit
    - (B) To point out extensive uses of Romance languages
    - (C) To identify types of dialects of Romance languages
    - (D) To show dialects which are not commonly understandable
4. West Nile virus (WNV) is a mosquito-borne virus and infection, and this virus does not always result in clinical disease. Studies have shown that normally only a small percentage of humans infected with the virus will show symptoms of disease. Birds also do not normally show any symptoms of WNV infection. Rather they serve as natural reservoirs of the virus and are able to pass the virus to feeding mosquitoes. However, some avian species appear to be susceptible to the virus, displaying varying degrees of infection. Chickens and gulls have been reported to show signs of illness ranging from encephalitis to death.
- The author mentions Chickens and gulls in the passage in order to
    - (A) warn people of the dangers WNV infected animals pose
    - (B) present the significant medical problems of WNV infection
    - (C) contrast their symptoms of WNV contagion to those of humans
    - (D) give an example of birds vulnerable to WNV infection

**Vocabulary** The word   in the passage is closest in meaning to

- |   |             |                  |                |                |                    |
|---|-------------|------------------|----------------|----------------|--------------------|
| 3 | mutually    | (A) reciprocally | (B) applicably | (C) cannily    | (D) asymmetrically |
|   | encounter   | (A) empower      | (B) efface     | (C) face       | (D) buttress       |
| 4 | susceptible | (A) intolerable  | (B) liable     | (C) noticeable | (D) ineluctable    |



5. A community consists of the populations of various species that live together in the same place. When a natural area has been disturbed, for example, by a volcanic eruption, an earthquake, or a forest fire, a new community does not spring into existence overnight but develops gradually through a series of stages. The process of community development over time, which involves species in one stage being replaced by other species, is called ecological succession. Ecological succession is usually described in terms of the changes in the types of vegetation of an area, although each successional stage also has its own characteristic kinds of animals. The time intervals involved in ecological succession are on the order of tens, hundreds, or thousands of years, not millions of years as in the evolutionary time scale.

- Why does the author mention evolutionary time scale in the passage?

- (A) To contrast the time required for ecological succession to that scale
- (B) To visualize the scope of time needed for evolution
- (C) To describe another way by which scientists measure change
- (D) To clarify the rate at which geological activities occur

6. Many villages and towns were formed over the years by chance. Sometimes, following their roads makes one think they were originally cow paths. Stirling was a carefully planned town before the first settler set foot on it. It was patterned after a rather famous city plan designed in 1833, the Plat of Zion, by Joseph Smith. The plan was truly visionary, and so adaptable to city planning in general that it was officially recognized by the 30,000 members of American Planning Association. This plan, designed for 15 to 20 thousand people, incorporated such ideas as modern zoning, land use regulations, and square wide streets. Stirling, however, failed to meet the dreams and expectations of its founders. Interestingly enough, this is one of the reasons Stirling has been designated as a Canadian National Historic Site.

- The author mentions the Plat of Zion in the passage in order to

- (A) explain Joseph Smith's financial success
- (B) contrast its popularity to that of Stirling
- (C) illustrate how it was designated as a memorial
- (D) describe the model used to design Stirling

**Vocabulary** The word   in the passage is closest in meaning to

- |   |              |                |                |             |                |
|---|--------------|----------------|----------------|-------------|----------------|
| 5 | disturbed    | (A) unimpaired | (B) withered   | (C) mended  | (D) upset      |
| 6 | incorporated | (A) dodged     | (B) incommoded | (C) mingled | (D) supplanted |
|   | meet         | (A) authorize  | (B) retard     | (C) divulge | (D) fulfill    |

- Read each passage and answer the corresponding question for each.

7. After the invention of the cotton gin, the yield of raw cotton doubled each decade after 1800. Demand was fueled by other inventions of the Industrial Revolution, such as the machines to spin and weave it and the steamboat to transport it. By mid-century, America was growing three-quarters of the world's supply of cotton, most of it shipped to England or New England where it was manufactured into cloth. During this time tobacco fell in value, rice exports at best stayed steady, and sugar began to thrive, but only in Louisiana. At mid-century, the South provided three-fifths of America's exports, most of it in cotton.

- Why does the author give details about other industries besides the cotton industry in the passage?
  - (A) To give evidence that exports showed much diversity
  - (B) To argue that these industries were comparable to the cotton industry
  - (C) To emphasize the cotton industry dominance in the economy
  - (D) To identify types of industries that became prosperous

8. Coral reefs are complex, multi-story structures with holes and crevices shared by various creatures. If a coral reef can be thought of as a metropolis of the sea, then a coral colony can be thought of as an apartment building with many different rooms and hallways that house different marine species. The actual architects of coral reefs are hard or stony corals, which are referred to as hermatypic or reef-building corals. As the polyps of stony corals grow, they produce limestone for their skeletons. When they die, their skeletons are left behind and are used as foundations for new polyps, which build new skeletons over the old ones. An actual coral mound or tree is composed of layer upon layer of skeletons covered by a thin layer of living polyps. Other types of animals and plants also contribute to the structure of the reef. Many types of algae, seaweed, and even mollusks like giant clams and oysters add to the architecture of a coral reef. When these organisms die, they also serve as foundations for new corals.

- In the passage, the author explains the structure of coral reefs and colonies by
  - (A) showing organisms whose structures are similar to coral reefs
  - (B) arguing that just the coral polyps create reefs
  - (C) illustrating the processes by which the colony collapses
  - (D) comparing a biological construct to common human structures

**Vocabulary** The word        in the passage is closest in meaning to

- |               |               |                |                 |              |
|---------------|---------------|----------------|-----------------|--------------|
| 7 raw         | (A) pictorial | (B) crude      | (C) provocative | (D) bearable |
| fueled        | (A) punctured | (B) glorified  | (C) spurred     | (D) dipped   |
| 8 foundations | (A) bases     | (B) operations | (C) allotments  | (D) throngs  |



9. The most important development of antebellum American journalism came in the 1830s, when New York journalists Benjamin Day and James Gordon Bennett began appealing to mass audiences. Unlike contemporary papers, which sold for 6 cents, Day's *New York Sun* and Bennett's *New York Herald* at first sold for a penny and were peddled in the streets. In addition to the increased circulations, which would reach 77,000 for the *Herald* shortly before the Civil War, this period was noteworthy for the change in the content of newspapers. Bennett, in particular, was a pioneer in broadening the scope and sharpening the appeal of newspaper reporting. Whereas the early political papers were distinctive in their lively denunciations of opponents, the highlight of the *Herald* was its sensationalistic coverage of crime and other lurid materials.

- The author contrasts early political papers with Bennett's *Herald* in the passage in order to

- (A) emphasize the increase in the popularity of newspapers
- (B) describe how the charge for newspapers went down
- (C) point out the importance of politics prior to the Civil War
- (D) show the shift in subject matters of newspapers

10. The increasing wail of an ambulance's siren as it approaches and the corresponding decreasing pitch as it departs are common examples used to explain the Doppler effect. The sound waves in front of the siren compress when the source of the waves moves in a line. Those behind the siren are stretched out in an opposite fashion. In a parallel way, emitted light such as that from a star also changes appearance depending upon the observer's position relative to its movement. However, instead of a change in pitch like the sound of the siren, light changes color; it turns red as it recedes and blue as it approaches. The first to understand the implications of this was the eminent American astronomer Edwin Hubble.

- In the passage, the author explains the concept of light change by

- (A) giving an example of various stars that change their position
- (B) classifying types of sirens that constitute sound waves
- (C) describing stars that shade into different colors
- (D) comparing it to a familiar example of the change in sound waves

**Vocabulary** The word  in the passage is closest in meaning to

- |                 |                |                   |                |                  |
|-----------------|----------------|-------------------|----------------|------------------|
| 9 denunciations | (A) baits      | (B) condemnations | (C) apostasies | (D) shortcomings |
| 10 departs      | (A) withdraws  | (B) bickers       | (C) crumbles   | (D) defrosts     |
| eminent         | (A) cloistered | (B) demanding     | (C) sober      | (D) noted        |



11. Gold is formed as a result of molten rock, called magma, being intruded into solid rock. As the magma cools and solidifies, water and other **volatile** substances separate out from the magma under high pressure. The high pressure of hot water and steam force open **fissures** in the surrounding solid rock through which these hydrothermal solutions travel. When the hydrothermal solutions cool, deposition of material occurs, especially quartz in the form of quartz veins. Because gold has a relatively low melting temperature, it is sometimes carried by the hydrothermal solutions through the fissures in the rock and solidifies inside the quartz veins. Thus, the **place** to look for gold is usually in quartz veins near the intrusion of a magma body. One example is the so-called Mother Lode of the Sierra Nevada in California. If these quartz veins are eroded, the gold may be found in streams and rivers; this explains why the 49-ers of the last century were able to pan for gold in the foothills of the Sierra Nevada.

- 1 Why does the author mention quartz veins in the passage?
  - (A) To explain the importance of their location in gold formation
  - (B) To give an example of how material accumulates
  - (C) To suggest the easiest way to locate gold deposits
  - (D) To show kinds of minerals created by magma
- 2 The author mentions 49-ers of the last century in the passage in order to
  - (A) signify the span of time needed for gold to enter a river
  - (B) describe people capable of finding gold washed into streams
  - (C) give a possible explanation why people rushed into California
  - (D) highlight the economic importance of the Sierra Nevada
- 3 What is the purpose of the passage?
  - (A) To contrast different materials found underground
  - (B) To explain the importance of geology in prospecting
  - (C) To aid those trying to choose locations to pan for gold
  - (D) To illustrate the process by which gold is created

**Vocabulary** The word **place** in the passage is closest in meaning to

- |             |             |               |                    |              |
|-------------|-------------|---------------|--------------------|--------------|
| 11 volatile | (A) untamed | (B) explosive | (C) indiscriminate | (D) plumb    |
| fissures    | (A) tokens  | (B) dregs     | (C) cracks         | (D) stains   |
| place       | (A) venue   | (B) declivity | (C) slab           | (D) fracture |

12. All living organisms require specific essential nutrients to satisfy the biological processes associated with tissue maintenance and repair, for growth and for all other productive activities including reproduction, lactation, or work. Unlike green plants, animals cannot capture solar energy and combine this with basic elements to provide nutrients but must rely on finding, ingesting, and digesting suitable feeds to satisfy their requirements. Most potential feeds have complex chemical structures that must be broken down (digested) into simple compounds before they can be taken into (absorbed) and used within the animal body. This process includes the ingestion of feeds, the physical and chemical reduction to simple products for absorption from the digestive tract and the subsequent elimination of indigestible residues. Chemically, digestion involves a hydrolytic reaction splitting large molecules until they are reduced to very small components that can pass across the intestinal lining into the body. Combinations of voluntary and involuntary mechanisms under both neural and endocrine controls and with acceleration by enzyme catalysts regulate these processes.

- 1 In the passage, the author explains the process of animal nutrition by
- (A) contrasting it with the method green plants acquire nutrients
  - (B) describing how much food they need for survival
  - (C) listing the various uses of energy within the organism
  - (D) analyzing the chemical structure of animal nutrients
- 2 Why does the author mention hydrolytic reaction in the passage?
- (A) To give an example of an involuntary mechanism
  - (B) To stress the significance of water in digestion
  - (C) To contrast digestion to ingestion of food
  - (D) To explain the process of chemical digestion
- 3 The author's purpose in writing the passage is
- (A) to define the role of enzymes in absorbing food
  - (B) to show why animals require specific nutrients
  - (C) to account for the process of animal digestion
  - (D) to argue for the desirability of protecting species

**Vocabulary** The word   in the passage is closest in meaning to

- |              |                  |                   |                  |              |
|--------------|------------------|-------------------|------------------|--------------|
| 12 lactation | (A) vein         | (B) respiration   | (C) molt         | (D) nursing  |
| capture      | (A) accord       | (B) procure       | (C) envision     | (D) widen    |
| acceleration | (A) ramification | (B) confederation | (C) facilitation | (D) duration |

13. An interesting question is why the arms of snowflakes are symmetrical. The symmetry of snowflake arms is always six-fold, which arises from the hexagonal crystal structure of ordinary ice along its 'basal' plane. There are broadly two possible explanations for the symmetry of snowflakes. Firstly, there could be communication (information transfer) between the arms, such that growth in each arm **affects** the growth in each other arm. Surface tension is a way that such communication could occur. The other explanation, which appears to be the prevalent view, is that the arms of a snowflake grow independently in an environment that is believed to be **rapidly** varying in temperature, humidity, and so on. This environment has been theorized to be relatively spatially homogenous on the scale of a single flake, leading to the arms growing to a high level of visual **similarity** by responding in identical ways to identical conditions, much in the same way that unrelated trees respond to environmental changes by growing near-identical sets of tree rings.

- 1 Why does the author mention Surface tension in the passage?
- (A) To show restrictions on the growth rate of snowflake arms
  - (B) To depict the forces acting on the outer arms of snowflakes
  - (C) To present a possible mechanism for snowflake communication
  - (D) To emphasize the limitations on this model of formation
- 2 The author mentions relatively spatially homogenous in the passage in order to
- (A) accentuate the importance of temperature in snow formation
  - (B) differentiate the condition of snowflake formation from that of tree rings
  - (C) contrast the varied environment to that of the first theory
  - (D) describe conditions experienced on a tiny scale
- 3 The purpose of the passage is to
- (A) verify existing theories of how climate affects snowflakes
  - (B) present hypotheses for the conformity found in snowflake arms
  - (C) disclose the mystery about the relationship between snowflakes and trees
  - (D) bolster the validity of the previous claims for the growth of snowflakes

**Vocabulary** The word   in the passage is closest in meaning to

- |            |                   |                 |                      |               |
|------------|-------------------|-----------------|----------------------|---------------|
| 13 affects | (A) impinges upon | (B) converges   | (C) takes account of | (D) dilutes   |
| rapidly    | (A) fluently      | (B) judiciously | (C) disinterestedly  | (D) swiftly   |
| similarity | (A) hilarity      | (B) durability  | (C) affinity         | (D) sincerity |



14. Based on findings that people label photos of prototypical facial expressions with words that represent the same basic emotions – a smile represents joy, a scowl represents anger – Ekman pioneered the idea that by carefully measuring facial expression, he could evaluate people's true emotions. In fact, since the 1970s, Ekman has dominated the field of emotion research with his theory that when an emotion occurs, a cascade of electrical impulses, emanating from emotion centers in the brain, triggers specific facial expressions and other physiological changes such as increased or decreased heart rate or heightened blood pressure. If the emotion comes on slowly, or is rather weak, the impulse might not be strong enough to provoke the expression. This would explain in part why there can sometimes be emotion without expression. In addition, cultural "display rules" – which determine when and whether people of certain cultures display emotional expressions – can derail this otherwise automatic process, the theory states.

- 1 Why does the author mention a smile represents joy, a scowl represents anger in the passage?
- (A) To contrast facial expressions that are easily understood with others  
(B) To describe the importance of using facial expressions to understand meaning  
(C) To give an example of the correlation between facial expressions and emotions  
(D) To show the basis from which photos were developed for display of emotions
- 2 The author mentions cultural "display rules" in the passage in order to
- (A) present empirical evidence that contradicts Ekman's theory  
(B) indicate the greatest weakness that links expressions with emotions  
(C) show that not all cultures have similar facial expressions  
(D) give an example of emotions which are not expressed on the face
- 3 What is the purpose of the passage?
- (A) To support a previously discarded theory about brain action  
(B) To suggest a theory which ties facial expressions to emotional state  
(C) To state problems found in Ekman's opinion about facial expressions  
(D) To argue that understanding the emotions of others is of consequence

**Vocabulary**

The word        in the passage is closest in meaning to

- |           |                |             |                |                |
|-----------|----------------|-------------|----------------|----------------|
| 14 label  | (A) embed      | (B) cram    | (C) annihilate | (D) designate  |
| pioneered | (A) initiated  | (B) sneered | (C) blended    | (D) nurtured   |
| triggers  | (A) infuriates | (B) elicits | (C) vanquishes | (D) undermines |

15. Most anthropologists today believe that the ancestors of all American Indians emigrated from northeastern Asia across the Bering land bridge during the Ice Age, between 12,000 and 60,000 years ago. Known as the Bering Strait theory, this idea is supported by geological and biological evidence. As water became locked up in the polar ice caps, sea levels dropped as much as 300 feet. The Bering Sea between Siberia and Alaska is no more than 180 feet deep and would have been dry land at those times. The land bridge, called Beringia, was open several times in the last sixty thousand years: there was an ice-free corridor between the eastern (Laurentide) and western (Cordillerran) North American ice sheets that linked Alaska to the American Great Plains. Biologically, American Indians are quite similar to the peoples of northeastern Asia. They share a number of physical similarities in teeth, skeletal features, coloration, hair type, and lack of body hair, as well as less visible characteristics that set them apart from other humans in Europe and Africa. Some scholars have suggested prehistoric migrations to North America from northern Europe, the Middle East, Africa, or Polynesia, but little or no evidence supports this theory.

- 1 Why does the author give details about physical characteristics in the passage?
  - (A) To show how similar conditions give rise to similar body styles
  - (B) To support the idea that Native Americans descended from northeastern Asians
  - (C) To illustrate worldwide variations in physical traits found among groups
  - (D) To give additional information about the unique traits of Native Americans
- 2 The author mentions northern Europe, the Middle East, Africa, or Polynesia in order to
  - (A) show physiological similarities between peoples in those areas
  - (B) give a reason for multiple emigrations over time
  - (C) describe how settlers in those areas survived during the ice age
  - (D) refute alternative locations of origin for Native Americans
- 3 The author's purpose in writing the passage is
  - (A) To support the most accepted scenario by which Native Americans entered the continent
  - (B) To offer alternatives to the widespread belief that Native Americans are from Europe
  - (C) To give new evidence which may weaken the most commonly held migration theory
  - (D) To describe the route traveled after Native Americans entered North America

**Vocabulary** The word   in the passage is closest in meaning to

- |             |                   |                |                   |                    |
|-------------|-------------------|----------------|-------------------|--------------------|
| 15 evidence | (A) preoccupation | (B) precept    | (C) corroboration | (D) correspondence |
| dropped     | (A) pondered      | (B) diminished | (C) compressed    | (D) detoured       |
| quite       | (A) fairly        | (B) winsomely  | (C) quietly       | (D) dexterously    |

정답 p.428



## [1] Egyptian Art

- 1 ➡ The ancient Egyptian art form evolved over five thousand years ago with the emergence of the early Egyptian civilization along the Nile River Valley, and remained relatively unchanged for the next three millennia. Egyptian art had a number of strict conventions for representing the human body that makes the style immediately recognizable to even the most untrained eye. Men are traditionally shown in white loincloths and women in short-sleeved linen dresses. There were some slight changes in dress as new fashions became widespread, but most were just variations upon this singular theme. The musculature and joints such as the knees are drawn well most likely due to the Egyptian's knowledge of anatomy gleaned through mummification practices. Yet, the pictures give a distorted representation of the body. Almost without exception the head is drawn in profile by a strict outline at a perfect ninety degree angle to its frontally posed broad shoulders. The eyes, wide-open and looking forward, are drawn facing the painter and detailed in full. The torso is at three-quarters view, but legs and arms are again in profile and depicted one in front of the other, clearly demonstrating motion. Outlined from the big toe upwards, feet are both painted from the inside so that the figure appears to have two same feet.
- 2 It was through paintings that the ancient Egyptian artists expressed their intentions. They had very keen eyes for detail and like a botanist who describes every single part of a flower, the artists were attentive in describing their subjects. Symbolism is apparent not only in the depictions of the individuals but also in the colors and animals. People drawn with big eyes and broad foreheads stood for sagacity and the images of a pharaoh holding a mace was symbolic of the king's role in protecting Egypt from chaos even though few ever went into battle. The use of blue or green emblemized the Nile and yellow the Sun. Numerous animals adorn many of the pictures found and are drawn with scrupulous scrutiny into detail. Those which delineate pharaohs include renderings of falcons often hovering over their heads with outstretched wings. Since the most important aspect of these paintings is that they were often meant to be an accompaniment for the deceased in the other world, the artist's primary goal was to preserve everything of the present time as permanently as possible.
- 3 One constant between all the paintings is that unitary exactness was stressed over cosmetic representation, but the meticulous homeometric regularity of figures did not filter over into perspective. In order to display distance, objects farther away were placed in the upper section or were painted over. Artists conservatively prepared walls for paintings by marking red horizontal and vertical guidelines and built specific grid patterns for standing figures arranging homogeneous bodily features for each symbolized individual with great emphasis on proportion. Murals, like Egyptian society as a whole, were characterized by their sense of order and harmonic balance. Scenes set on baselines depict events in chronological sequence, from right to left, focusing on one central character in the story, usually the tomb owner, a God or a king. In addition, since artists were charged with



reinforcing social hierarchy, they were forced to draw figures in approximate sizes based not on their perceived distance from the observer, but on their relative importance. The Pharaoh, for instance, is illustrated as the largest figure in the painting regardless of where he or she is situated. A lesser God is drawn smaller than a greater God. Wives and commoners are portrayed diminutively, towering only over children and some animals. As a result, artists painted an extraordinarily vivid view of life in ancient Egypt, confined by inexorable categorization of people based on social class and persistent laws of artistic presentation.

1. Why does the author mention the most untrained eye in the passage?
  - (A) To illustrate the distinguished skill of amateurs
  - (B) To argue for the need for professional training
  - (C) To emphasize the significance of art education
  - (D) To highlight how obvious Egyptian art style is
2. The word *slight* in the passage is closest in meaning to
  - (A) operative
  - (B) minor
  - (C) frank
  - (D) staggering
3. The word *most* in the passage refers to
  - (A) loincloths
  - (B) dresses
  - (C) changes
  - (D) fashions
4. Which of the following is NOT given as a characteristic of Egyptian paintings in paragraph 1?
  - (A) Eyes looking out on the observer
  - (B) Poorly defined muscles in the arms
  - (C) Face described in profile
  - (D) Partial view of the upper body

Paragraph 1 is marked with an arrow [➡].

5. The author mentions a botanist in the passage in order to
- (A) describe Egyptian artists' attention to detail
  - (B) stress the botanist's ability to depict flowers
  - (C) illustrate the symbolic nature of Egyptian art
  - (D) contrast the botanist's skills to the artist's
6. The word *sagacity* in the passage is closest in meaning to
- (A) travesty
  - (B) endurance
  - (C) faithfulness
  - (D) wisdom
7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The artist attempted to accurately record everything of current life because what was drawn would follow the dead into the other world.
  - (B) As the paintings represented what the dead would be able to carry with them into their next lives, they decided items before their death.
  - (C) In order for the deceased to reach the other world, it was necessary to ensure that their life was accurately portrayed in art.
  - (D) Paintings were drawn on good materials in an effort to assist the deceased in their passage into the next world and pray for their welfare.
8. The word *their* in the passage refers to
- (A) scenes
  - (B) artists
  - (C) figures
  - (D) sizes
9. Why does the author mention *Wives and commoners* in the passage?
- (A) To categorize Egyptian people into different social classes
  - (B) To demonstrate how social strata were represented in paintings
  - (C) To suggest that they played an important role in Egyptian society
  - (D) To argue that they cared about children and animals greatly
10. The word *vivid* in the passage is closest in meaning to
- (A) comprehensive
  - (B) savory
  - (C) graphic
  - (D) filmy

11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Ancient Egyptian pictures all contain their own distinctive features.**

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- 
-

Answer Choices

- |   |  |
|---|--|
| (A) Early Egyptian artists lacked the advanced knowledge necessary to precisely draw the human body.          | (D) The human form is always portrayed in a pose that appears unnatural.                             |
| (B) Abstract representations of religious and conceptual themes were often incorporated to the Egyptian arts. | (E) The location and size of an object in murals was determined by firm rules.                       |
| (C) A variety of types of animals and plants were without exception drawn to give life to paintings.          | (F) Consistency found in Egyptian paintings is the primary reason for their superior artistic value. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.433



## [2] Mars

- 1 The fourth planet of the solar system, Mars, visible with the naked eye, waxes and wanes in the night sky during the course of the year. Due to the elliptical orbits of both the Earth and Mars, the appearance of Mars will at times show a very distinct reddish color especially during the times it is closest to the Earth, which occurs twice every 32 years in alternating 15 and 17 year intervals. In contrast, it can be virtually invisible to the naked eye or masked by the Sun's glare when its orbit carries it opposite from the Earth.
- 2 ➡ For over 3,000 years, the Red Planet has been, second only to the Moon, the most studied celestial body in the universe. Its proximity to the Earth has spurred a plethora of scientific studies, suggesting it could be the home of an intelligent alien life form. In the 19<sup>th</sup> century, two prominent astronomers, Percival Lowell and Giovanni Schiaparelli, used an advanced spectroscope to study the fine details of Mars and noted unusual topographical features, which they called 'canali,' which in Italian means channels; however, at the time it was often mistranslated as canals. Since this term implies construction, there were many who took the discovery of canals to mean that intelligent life existed at one time on the distant planet. Following this, a spate of scientific as well as literary interest surged, capturing the public's fancy that perhaps the solar system was home to more than one sentient race.
- 3 The attraction to Mars is much stronger than on any other planet, which all tend to be extremely hostile to life, because the Red Planet not only is the most accessible destination, but also is believed to contain topography conducive to both the development of life and long-term settlement by human explorers. The surface undergoes seasonal fluctuations in color which at one time was assumed to be vegetation blooms during the summer months. During the winter months, as the color changed, some believed that the surface flora would enter a period of inactivity. When Mars is closest to the Earth, even prior to the invention of telescopes, polar ice caps can be seen which hint at the possibility of available water, a prerequisite for life. As optical technology developed, astronomers found dormant volcanoes which fueled speculation that the cooling of the planet's core was responsible for the lack of current activity on its surface.
- 4 ➡ This image of Mars as potentially harboring life persisted until July of 1965, when the Mariner probe sent back 22 close up photographs of the surface. These pictures revealed a stark and barren landscape which was a far cry from the fertile Mars envisioned by many. The canals, which had once been considered signs that an intelligent civilization was engaging in agriculture, were shown to be simply dried up natural waterways or just shadows cast by natural land features. The color changes which seemed to allude to the possibility of vegetation were, upon close inspection, to be the result of dust storms on the surface as seasonal winds blew up huge areas of the parched surface.
- 5 Following the Mariner expedition, numerous other missions were sent to Mars with a few successfully landing on the surface. While it seemed that no living organism could live on the surface of the planet since the thin atmosphere would not filter enough hazardous ultraviolet light, there has been some recent evidence that the pronouncement of Mars as a

dead planet may have been premature. Opportunity and Spirit, two NASA rovers currently on the surface of Mars, have been involved in new research and have found traces of methane in the air. Since methane is unstable, it must have been generated somewhere possibly by methanogens which are methane-producing bacteria. Although no conclusive evidence has yet been discovered, future research is bound to continue to focus on Mars as possible source of extraterrestrial life.

1. The word *virtually* in the passage is closest in meaning to
  - (A) objectively
  - (B) nearly
  - (C) equitably
  - (D) recurrently
2. The word *glare* in the passage is closest in meaning to
  - (A) flame
  - (B) amplification
  - (C) elucidation
  - (D) detonation
3. The word *its* in the passage refers to
  - (A) sky
  - (B) Earth
  - (C) Mars
  - (D) Sun
4. The word *unusual* in the passage is closest in meaning to
  - (A) uninitiated
  - (B) obtuse
  - (C) strange
  - (D) immobile
5. Why does the author mention canals in the paragraph 2?
  - (A) To rebut the idea that Lowell and Schiaparelli found alien life
  - (B) To show that construction had taken place on Mars in the past
  - (C) To claim that accurate translation is important for scientists
  - (D) To give a reason for people's belief in the existence of life on Mars

Paragraph 2 is marked with an arrow [➡].

6. The word fancy in the passage is closest in meaning to
- (A) conviction
  - (B) imagination
  - (C) piquancy
  - (D) distrust
7. The author mentions the Mariner probe in paragraph 4 in order to
- (A) support that canals were constructed for agriculture
  - (B) demonstrate the significance of photography to astronomy
  - (C) argue that not all evidence of Martian life has been refuted
  - (D) contradict the previous idea that Mars was active

Paragraph 4 is marked with an arrow [➡].

8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The high levels of wind made it impossible for vegetation to exist on the surface of Mars.
  - (B) Dust storms by winds were found to be the cause of the surface color variation on Mars.
  - (C) The likelihood of plants on Mars is reduced by the discovery of seasonal dust storms.
  - (D) As vegetation in Mars was stifled by strong winds, the change in surface color didn't occur.
9. The word hazardous in the passage is closest in meaning to
- (A) doomful
  - (B) weak
  - (C) dangerous
  - (D) mysterious
10. Why does the author mention methane in the passage?
- (A) To give the latest proof of the possibility of animate creatures
  - (B) To reinforce the idea that Mars is a barren world
  - (C) To highlight the effectiveness of the NASA rovers on Mars
  - (D) To describe how thin the atmosphere of Mars is



11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Mars has long been considered suitable for harboring alien life.**

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- 
- 

Answer Choices

- |   |   |
|---|---|
| (A) NASA has launched a series of increasingly sophisticated Mars probes.               | (D) It was believed that artificial waterways had been built on Mars.                                 |
| (B) Scientists have paid attention to Mars' potential as a space research center.       | (E) The color change in the appearance and the existence of ice caps were regarded as a sign of life. |
| (C) The presence of unstable gas in the atmosphere might have been created by bacteria. | (F) Because of its vicinity to the Earth, early astronomers were able to observe Mars in the sky.     |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.434

### [3] American Quilts

- 1 In post-colonial homes with large parlors, women frequently gathered in quilting bees and helped neighbors and friends finish their needlepoint work, taking turns working on one of the four corners of the quilt frame. These weekly or monthly events constituted women's primary means of socializing in an otherwise isolated rural American environment. Expert quilters would work together, sometimes teaching novice girls, and carefully piece together a full blanket while singing, telling stories, and sharing ideas about everyday life. Based on the complexity of the design, the project could take many days to complete, or as little as one afternoon. As the craft matured and the socioeconomic status of the quilters changed, the style also became more sophisticated depending on whether the purpose was to commemorate loved ones or community milestones, or simply keep everyone in the family warm.
- 2 ➡ Such pragmatic concerns were much more evident in early quilts than as a means of artistic expression. Parsimonious women recycled highly-valued scraps of materials to make and repair the quilts. Called patchwork, the technique centered on the construction of blocks, squares of fabric that were sewn together to make the quilt top. Once this was finished, a layer of cotton or wool batting was laid down, making the quilt soft and comfortable. Then a large piece of backing was placed underneath the batting and all three layers were sewn with small stitches. Because the tops were sewn with many different odds and ends, printing styles and color varied from block to block. This gave women the opportunity to make designs, some figural and others geometric. Some quilters even developed superstitions associated with particular motifs. If a boy slept under the Turkey Track quilt, which was originally called the Wandering Foot, he would leave home and never return.
- 3 ➡ Patchwork quilts, in general, had utilitarian considerations, but in the early 1800s, the craft was artistically enhanced by groups of affluent women who could spend their leisure time perfecting complicated new patterns by cutting out specific shapes of fabric and hand-stitching these onto the foundation piece. Called appliqué, adapted from the French word meaning 'to apply,' the technique required delicate needlework and a variety of suitable materials, which substantially increased the cost of each quilt. At first, only the wealthy could afford to make appliqué quilts, but throughout the century, American textile printers stepped up production and lowered costs. The introduction of the sewing machine also reduced stitching time. By the early 1900s, appliqué had surpassed patchwork in popularity, mainly due to its versatility and integration into folk art of the era.
- 4 One common use of the appliqué was to record local community history, popularized by the Baltimore Album motif. The Baltimore Album motif was named for the city where it first became fashionable, and perhaps the best example of how women used quilting to record aspects of their community. The design generally used elaborate floral, animal, or patriotic themes, constructed from numerous individually-sewn blocks, each signed by their maker. Talented calligraphers might also write verses or messages to the intended owner of the final product, hoping to remind him or her of the many hands that were involved in the multistage undertaking.

- 5 Eager to incorporate any new aesthetic trend into their artwork, quilters embraced asymmetrical designs into their coverlets, stitching irregular patches either with appliqué or patchwork piecing. Women's magazines not only promoted the new techniques, but also coined the term crazy quilts (traditionally, 'craze' meant to break or tear into splinters) to describe the use of exotic brocades, velvets, and wools, topped with embroidery, to set out kaleidoscopic or abstract arrangements. Some publications even gave away snippets of silk to encourage women to subscribe. As mass media grew, so did the interest in innovative needlework. Crazies were a perfect way for talented women to show off their skill and imagination because they were complicated by intricate stitches such as herringbone, fly, and chain. Like appliqué, these quilts were first made only by the more affluent, but as their popularity grew, women began fashioning them out of cotton, denim, and flannel. Female artisans, for the first time in American history, found their creatively-charged works in galleries.

1. According to the passage, what was the main purpose of quilting bees?
  - (A) To lessen the burden of household chores
  - (B) To increase the intricacy of the finished quilts
  - (C) To give women an opportunity to meet each other
  - (D) To serve the community by providing free clothes
2. According to the passage, the length of the time needed to perfect a quilt
  - (A) was affected by the number of experts
  - (B) varied depending on the intricacy of the pattern
  - (C) increased because of the time for story telling
  - (D) was a foremost standard to grade it
3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Once the quilters became more wealthy and influential, they began to experiment with more sophisticated designs.
  - (B) With the advance of quilts and the change of the maker's position, they displayed more refined style according to their intended function.
  - (C) Quilts were created to celebrate important events or intimate persons as well as elevate women's role in the community.
  - (D) Because the style of quilts reflected the status of the makers, they tried to elaborate their works using advanced techniques.



4. In paragraph 2, the author describes patchwork by

- (A) outlining the method to obtain materials
- (B) listing the types of several common designs
- (C) clarifying its purpose as artistic expression
- (D) showing the process by which it was made

Paragraph 2 is marked with an arrow [➡].

5. Why does the author mention Turkey Track quilt in the passage?

- (A) To highlight the diversity of colors in patchwork
- (B) To show that many motifs have more than one meaning
- (C) To offer an alternate name for patchwork quilts
- (D) To give an example of an old belief about patchwork patterns

6. In paragraph 3, why does the author mention American textile printers?

- (A) To support the idea that mass produced quilts were superior
- (B) To argue how technology expanded the number of quilting bees
- (C) To show how appliqué quilts became more available
- (D) To compare appliqué's popularity with that of patchwork

Paragraph 3 is marked with an arrow [➡].

7. The word versatility in the passage is closest in meaning to

- (A) adaptability
- (B) dependability
- (C) contemptibility
- (D) affordability

8. Why does the author mention Baltimore Album motif in the passage?

- (A) To demonstrate the prevalence of appliqué quilts in Baltimore
- (B) To give a reason for women's affection for quilts
- (C) To give an example of appliqué's use as a community record
- (D) To contrast the Baltimore style to that of other cities

9. The word undertaking in the passage is closest in meaning to

- (A) opulence
- (B) task
- (C) earmark
- (D) ambiguity

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Quilts have gone through many stages of development prior to being considered more than just a cover.**

Answer Choices

- |   |   |
|---|---|
| (A) Quilts with complex patterns were produced by sewing particular shapes of individual textile onto the foundation piece. | (D) Quilts were initially created by making use of leftover bits of fabric in consideration of practicality and had inconsistent patterns and colors. |
| (B) Publications helped to attract women's interest in quilts by distributing fine quality cloth to subscribers.            | (E) The middle layer in multi-layered quilts served as the base for the underlying batting and made the quilts more yielding to the touch.            |
| (C) Quilting skills were passed from experts to beginners at quilting bees in an effort to preserve conventional skills.    | (F) Covers were made by stitching erratic fabric scraps and were pieced together using other types of quilting techniques.                            |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.435

#### [4] Biological Clock

- 1 The evolution of the internal biological clock, which is also known as the Circadian rhythm, is directly linked to the 24-hour cycle of day and night on Earth and was first recognized centuries ago when botanists saw its importance in plants due to the effect that light had on the flowering of plants and in their preparations for winter. Only in the past four decades, however, have researchers discovered that there is a biological clock in animals; following this revelation, they have endeavored to understand how <sup>1</sup>it is controlled.
- 2 After establishing the existence of biological clocks in fauna, the results of the initial studies and new advances in neurological studies led researchers to further explore the mechanisms by which organisms were able to adjust their timing. Preliminary findings indicated that the Circadian rhythm was not a true 24-hour sequence, but rather species showed wide variation, from 20-hour to 28-hour periods in which those kept in isolation would eventually fall out of sync with the natural environment. In contrast, those which were kept in a normal environment seemed unaffected with no exhibitions of periodic distortions which conclusively showed the necessity of sunlight, yet the exact mechanism remained obscured until the discovery of melanopsin, a blue-light sensitive protein in the retina. When the eye is exposed to bright light, the protein is created and sent to the suprachiasmatic nuclei (SCN) in the brain and thus, upon receipt of this photoreceptor, the SCN performs minor adjustments and ensures that the internal time is kept concurrent with the environment. Without regular exposure to sunlight or for those unable to produce melanopsin (a side effect which occurs in some types of blindness), their internal timepieces have no way to reset and they will have trouble sleeping and waking at regular intervals.
- 3 A similar effect was also observed in rats, which had their SCN removed during an experiment to prove the SCN was the control of the body's clock, which, even when dissected out of the brain, continued sending forth a steady stream of proteins that functioned as messengers, keeping all the visceral organs in time, which diurnally raises basal temperatures, releases cortisol\*, and elevates blood pressure in anticipation of a day of activity. While in the evening, melatonin, growth hormones, and other hormones are released as the body prepares for sleep, and as a consequence, people with short-term aberrant sleep patterns can face substantial repercussions since hormone production becomes erratic if the Circadian rhythm is broken and leads to disorientation and insomnia. Continually irregular resting schedules, especially disruptions during major developmental phases, can have resultant negative impacts on the individual's growth.
- 4 ➡ Once the SCN was recognized as the control center, the next step, in an effort to understand how to control the cycle, was to identify the genes which regulated the mechanism, and since the fruit fly was one of the most studied subjects in genetics, it was naturally the first animal in which specific gene sequence was identified. However, it took an additional seventeen years for the DNA sequences that control the rhythms in mammals to be discovered first in 1988. Hamsters with a defective DNA sequence, known as the circadian locomotor output cycles kaput or clock gene, sent faulty signals to the SCN, which thus kept them from ever establishing the regular Circadian rhythm. Without this



internal feedback mechanism, the hamster would eat, drink, and sleep at irregular intervals, exhibiting no periodicity, although surprisingly the amounts it ate, drank, and slept showed no deviation from those of a normal hamster.

- 5 In humans, a similar mechanism is in existence, which serves the same function. However, since people consciously fight their natural biological cycle, there has been considerable research devoted to trying to understand human rhythms. For example, people who travel from one time zone to another often experience physiological symptoms such as nausea, irritability, and insomnia. Some disorders previously thought to be psychological have also recently been found that they are affected by the Circadian rhythm. Generally, exposure to sunlight will eventually help reset the body's inner alignment, but during the winter, the shorter days can exacerbate the problem and lead to seasonal affective disorder. A form of depression, <sup>9</sup>it has been linked to increased drug and alcohol abuse as well as suicide, but due to increased understanding of the causes, treatments such as light therapy have been developed to aid those afflicted by equalizing their hormone levels.

Glossary
cortisol : an adrenal-cortex hormone that is active in carbohydrate and protein metabolism

1. The word it in the passage refers to
  - (A) light
  - (B) flowering
  - (C) biological clock
  - (D) revelation
2. The author mentions those kept in isolation in the passage in order to
  - (A) identify which organisms are suitable for the experiment
  - (B) explain the role of the brain in clock regulation
  - (C) provide an example of species neurologists studied
  - (D) compare them with species exposed to sunlight
3. The word conclusively in the passage is closest in meaning to
  - (A) decisively
  - (B) illusorily
  - (C) elastically
  - (D) volubly

4. The word *erratic* in the passage is closest in meaning to
- (A) sweeping
  - (B) insufficient
  - (C) crisp
  - (D) inconsistent
5. In paragraph 4, why does the author mention Hamsters?
- (A) To contrast their gene sequence that regulates the Circadian rhythm with that of the fruit fly
  - (B) To describe the first identification of a gene in mammals which controls the biological clock
  - (C) To explain how the origin of genetic research aided in the discovery of the biological clock gene
  - (D) To clarify which subjects are best appropriate for the large-scale genetic research in Biology

Paragraph 4 is marked with an arrow [➡].

6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) In order for a hamster to control its internal clock, it must be able to eat, drink, and sleep at regular times like other hamsters.
  - (B) The biological needs of a normal hamster were much lower than those of a hamster without the Circadian rhythm.
  - (C) A hamster with no internal biological clock differed from an ordinary one by the times it would feed and rest but not in the total amount.
  - (D) Differences in behavior between normal and abnormal hamsters were observed by removing their mechanism for internal control.
7. Why does the author mention travel from one time zone to another in the passage?
- (A) To show that illnesses once thought to be mental have a physical component
  - (B) To argue for the shortcomings of different time zones for traveling workers
  - (C) To give a possible cause for biological clocks in humans becoming asynchronous
  - (D) To highlight the disruptive effects of air travel on the body's biological clocks
8. The word *exacerbate* in the passage is closest in meaning to
- (A) worsen
  - (B) quench
  - (C) manacle
  - (D) elate

9. The word it in the passage refers to

- (A) Circadian rhythm
- (B) exposure to sunlight
- (C) body's inner alignment
- (D) seasonal affective disorder

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Like plants, animals have the Circadian rhythm that helps regulate body functions.**

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Answer Choices

- |   |  |
|---|--|
| (A) Species exhibit various types of internal clocks and need to synchronize with each other.                             | (D) Light is indispensable for keeping the internal environment in time with the external.             |
| (B) The brain controls proteins and hormones to make the body arrange for each day and night.                             | (E) Particular gene sequences which form the basis of internal biological clocks have been discovered. |
| (C) The role of the suprachiasmatic nuclei in maintaining internal clocks is to increase temperatures and blood pressure. | (F) People who have difficulty in sleeping should be placed under medical care immediately.            |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.437



## CHAPTER 06 | Inference

### Overview

Inference 문제는 지문에 명백히 드러나 있지 않지만 지문에 나타나 있는 사실을 바탕으로 추론 가능한 것을 선택하는 유형이다. 여기서 inference (추론)란 지문에 직접 명확하게 언급되어 있지는 않지만, 함축되어 있는 생각을 지문에 제시되어 있는 정보를 근거로 하여 알아내는 것을 말한다.

따라서 Inference 문제를 제대로 풀기 위해서는 지문에 제시된 정보를 정확하게 이해하는 것이 필수적이며 주관적인 생각은 배제하고 추론의 근거는 항상 지문에 두어야 한다.

Inference 문제는 보통 한 지문당 1~2개가 출제된다.

### Types of Questions

대개 단락 번호가 문제에 함께 제시되며, 지문에 해당 단락이 [→] 표시로 나타난다. 선택지에는 4개의 보기가 주어진다.

Inference 문제의 전형적인 질문 유형은 아래와 같다.

- According to paragraph \_\_\_\_, what can be inferred about \_\_\_\_ ?
- It can be inferred from paragraph \_\_\_\_ that \_\_\_\_
- Based on the information in paragraph \_\_\_\_, what can be inferred about \_\_\_\_ ?
- What is \_\_\_\_ believed to indicate?
- Which of the following statements most accurately reflects the author's opinion about \_\_\_\_ ?

## 전략 1 문제의 keyword가 언급되어 있는 부분을 지문에서 찾는다.

지문을 scanning하여 keyword에 관련된 내용을 지문에서 찾은 후, keyword가 들어있는 문장 및 전후 문맥을 정확히 파악한다.

Ex The Aurora consists of rapidly shifting patches and dancing columns of light of various hues. Extensive auroral displays are accompanied by disturbances in the terrestrial magnetism and interference with radio, telephone, and telegraph transmission. The period of maximum and minimum intensity of the Aurora follows almost exactly that of the sunspot cycle, which is an eleven-year cycle.

Q: It can be inferred from the passage that sunspots

A: have phases of differing intensities

- 문제의 keyword인 sunspots (흑점)는 지문의 마지막 문장에 언급되어 있다. '오로라의 최대최소 강도의 주기는 11년을 주기로 하는 태양흑점 주기의 최대 최소 강도 주기를 거의 정확히 따른다'고 하였으므로 태양흑점에 다른 강도를 갖는 시기가 있음을 추론할 수 있다.

## 전략 2 지문에서 추론의 근거가 되는 부분을 바탕으로 올바르게 추론한 보기를 답으로 선택한다.

추론의 근거로 삼을 수 있는 부분은 지문에서 한 두 문장일 수도 있고, 여러 단락이 될 수도 있다.

### • Keyword가 들어있는 문장을 읽고 추론

한 문장만을 근거로 추론이 가능할 경우, 추론된 문장은 거의 keyword가 들어있는 문장의 paraphrase 수준에 가깝다.

Ex In some areas where electric-power demand varies sharply at different times of the day, pumped-storage hydroelectric stations are used.

Q: According to the passage, it can be inferred that pumped-storage hydroelectric stations

A: could be the solution to inconsistent electric-power demand

- 문제의 keyword인 pumped-storage hydroelectric stations는 문장 뒷부분에 언급되어 있다. '양수발전소는 시간대에 따라 전력 수요가 급격히 다른 곳에서 사용된다'고 하였으므로 일관되지 않은 전력 수요에 대한 해결책이 될 수 있음을 추론할 수 있다.

● Keyword가 들어있는 문장과 그 주변 문장의 내용을 통합하여 추론

Keyword가 들어있는 문장만으로 추론의 근거가 약할 경우, 주변 문장의 정보를 조합해서 추론한다.

Ex Most New Deal artists were grateful to President Roosevelt for giving them work and enthusiastically supported the new deal's liberal agenda. Not surprisingly, their art reflected this point of view.

Q: According to the passage, it can be inferred that most of the works created by New Deal artists

A: were not politically neutral

→ 문제의 keyword인 New Deal artists는 첫 번째 문장에 언급되어 있다. 첫 번째 문장에서 '대부분의 뉴딜 예술가들이 열광적으로 뉴딜 정책의 자유주의적 협의사항을 지지' 했고 두 번째 문장에서 '그들의 작품이 이러한 관점을 반영했다'고 하였다. 따라서 뉴딜 시대 예술가들이 창조해 낸 대부분의 작품들은 정치적으로 중립적이지 않았다고 추론할 수 있다.

● 한 단락 또는 여러 단락의 정보를 종합하여 추론

작가의 의견을 묻거나 한 단락 또는 여러 단락에 걸쳐 있는 전반적인 내용에 관해 추론해야 할 경우, 지문 전체 내용에 관한 이해가 필수적이다.

Ex There is another and less specific reason why caricature had to await the advent of printing and the wider dissemination of knowledge which resulted. The successful political cartoon presupposes a certain average degree of intelligence in a nation, an awakened civic conscience, a sense of responsibility for the nation's welfare. The cleverest cartoonist would spend his time appealing to a nation of feudal vassals; he could not expect to influence a people to whom the ballot box was closed. Caricature flourishes in an atmosphere of democracy; there is an eternal incompatibility between its audacious irreverence and the doctrine of the divine right of kings.

Q: According to the passage, it can be inferred that a political cartoonist would most likely succeed

A: in a society of people who can vote against their country's ruler

→ 문제의 keyword는 political cartoonist이다. '풍자 만화는 사람들의 선거권이 없는 봉건예속사회(a nation of feudal vassals)에서는 영향을 발휘하지 못하며 민주주의 풍토에서 꽃피울 수 있다'는 것이 글의 결론이므로 정치 풍자 만화가가는 사람들이 그들의 통치자에 대해 반대 투표를 할 수 있는 사회에서 가장 성공할 것임을 추론할 수 있다.



### 전략 3 보기 중 오답을 확인한다.

지문의 내용과 상반되거나 지문에 언급되지 않은 보기는 오답으로 간주된다.

Ex It was true that canals could not compete with rail. They were limited both in volume carried per unit and in speed; they were too small, too slow, and fragmented. In contrast, the railways, as they became integrated into national systems, provided a far more extensive service with greater flexibility. The canals were further handicapped because they were not, for the most part, common carriers themselves but were largely dependent on intermediate carrying companies. Although transport on the canals was initially cheaper than on rail, the railways gradually overcame this advantage.

Q: According to the passage, it can be inferred that

A: sometimes price is not the most important factor in choosing a method of transportation (○)

- '운하가 철도보다 비용이 더 저렴했음에도 불구하고 철도의 경쟁 상대가 될 수 없었다'는 사실에서 때로는 가격이 교통 수단을 선택하는데 있어 가장 중요한 요인이 아님을 추론할 수 있다.

지문의 내용과 상반된 오답

canals were competitive in that they were managed independently by themselves (×)

지문에서 '운하가 대부분 중간 운송 회사에 의존하여 불리했다'고 하였으므로 '운하가 독립적으로 경영되어 경쟁력이 있었다'는 것은 지문의 내용과 상반된다.

지문에 언급되지 않은 오답

most people still don't think canals are a good method of transportation (×)

'사람들이 현재 운하가 좋은 교통 수단이라고 생각하지 않는다'는 것은 지문에 언급되지 않았다.

## Hackers Strategy Application

As trouble between the British government and the colonies grew with the approach of the American Revolution, Franklin's deep love for his native land and his devotion to individual freedom brought him back to America in 1775. There, while his illegitimate son, William Franklin, was becoming a leader of the Loyalists, Benjamin Franklin became one of the greatest statesmen of the American Revolution and of the newborn nation. He was a delegate to the Continental Congress, was appointed postmaster general, and was sent to Canada with Samuel Chase and Charles Carroll of Carrollton to persuade the people of Canada to join the patriot cause. He was appointed in 1776 to the committee that drafted the Declaration of Independence, which he willingly signed.

Late in 1776 he sailed to France to join Arthur Lee and Silas Deane in their diplomatic efforts there for the new republic. Franklin, with a high reputation in France well supported by his winning presence, did much to gain French recognition of the new republic in 1778. Franklin helped to direct U.S. naval operations and was successful agent for the United States in Europe – the sole one after suspicions and quarrels caused Congress to annul the powers of the other American commissioners.

1. What can be inferred from paragraph 1 about Benjamin Franklin?
  - (A) He hesitated to sign the Declaration of Independence at first.
  - (B) He returned to his country to spread ideas of individual liberty.
  - (C) He didn't have close relationship with his son, William Franklin.
  - (D) He criticized Great Britain for suppressing personal freedom.
2. It can be inferred from paragraph 2 that when Benjamin Franklin visited France late in 1776
  - (A) he had never been to France before then
  - (B) he was the first ambassador who was delegated to France
  - (C) France took the initiative in Europe at the time
  - (D) his personal reputé played an important part in his mission

- 1 **전략 1 적용** 문제의 keyword는 Benjamin Franklin으로 지문 전체에 걸쳐 언급되어 있으므로 보기에서 문제 해결의 단서를 찾아 관련 내용이 지문의 어디에 언급되어 있는지 찾는다.
- (A) 단서 the Declaration of Independence → 1단락 마지막 문장에 언급됨  
(B) 단서 returned to his country → 1단락 3번째 줄에 brought him back to America 언급됨  
(C) 단서 William Franklin → 1단락 3번째 줄에 언급됨  
(D) 단서 Great Britain → 1단락 첫 줄에 the British government 언급됨
- 전략 2 적용** 지문의 첫 번째 문장에서 Franklin의 애국심과 개인의 자유를 향한 일념이 그를 미국으로 돌아오게 하였다고 했으므로 (B)와 같이 그가 개인의 자유에 대한 사상을 퍼뜨리기 위하여 고국으로 돌아왔음을 추론할 수 있다.
- 전략 3 적용** (A) 지문의 내용과 상반된 오답  
Franklin이 독립선언서에 기꺼이 서명했다고 하였으므로 처음에 서명하기를 주저했다는 것은 지문의 내용과 상반된다.  
(C) 지문에 언급되지 않은 오답  
Franklin이 아들과 사이가 좋지 않았다는 것은 지문에 언급되지 않았다.  
(D) 지문에 언급되지 않은 오답  
Franklin이 영국을 개인의 자유를 억압한다며 비판했다는 것은 지문에 언급되지 않았다.
- 정답** (B)
- 2 **전략 1 적용** 문제의 keyword는 France와 1776이다. 이들은 2단락 첫 번째 문장에 언급되어 있다.
- 전략 2 적용** 문제의 keyword가 들어있는 문장과 그 다음 문장의 정보를 조합하여 추론한다. Franklin이 1776년 후반 새로운 공화국 건설을 위한 외교노력에 동참하기 위해 프랑스로 갔을 때 프랑스에서의 그에 대한 높은 평판으로 1778년에 새 공화국에 대한 프랑스의 승인을 얻는데 많은 기여를 했다고 하였으므로 (D)와 같이 그의 개인적 명성이 임무를 수행하는데 중요한 역할을 했음을 추론할 수 있다.
- 전략 3 적용** (A) 지문에 언급되지 않은 오답  
'1776년 이전에 Franklin이 프랑스에 가본 적이 없다'는 것은 지문에 언급되지 않았다.  
(B) 지문의 내용과 상반된 오답  
'Franklin이 Arthur Lee와 Silas Deane의 프랑스에서의 외교 노력에 동참하기 위해 프랑스로 갔다'고 하였으므로 '그가 프랑스에 파견된 최초의 대사였다'는 것은 지문의 내용과 상반된다.  
(C) 지문에 언급되지 않은 오답  
'1776년에 프랑스가 유럽에서 주도권을 쥐고 있었다'는 것은 지문에 언급되지 않았다.
- 정답** (D)



# HACKERS PRACTICE

● Choose a statement that best describes what can be inferred from each passage.

1. While many Native American Pueblos have a kachina religion, only the Hopi have made Kachina doll carving into an art form. The first Kachina dolls were not the elaborate carvings of today, but were simple flat dolls painted to accurately depict the deities they represented as a teaching tool for the children.  
(A) Today's decorative dolls fail to clearly portray deities.  
(B) Early Kachina dolls were painted to simplify their elaborate features.  
(C) Representation of children set a high value on Kachina dolls.  
(D) Over time, the design of Kachina dolls has become ornate.
2. Stephen Grover Cleveland, 22<sup>nd</sup> and 24<sup>th</sup> President of the United States, will be remembered for protecting the power and autonomy of the executive branch. His record-breaking use of the presidential veto earned him the deserved moniker of the "guardian President" and helped balance the power of the executive and legislative branches.  
(A) Cleveland's overuse of a veto balanced his power with that of the executive.  
(B) The exercise of a veto safeguards the authority and independence of the executive branch.  
(C) Unable to protect the power of the legislature, Cleveland resorted to using a veto.  
(D) As a guardian of the President, Cleveland was given the power to veto.
3. Refrigeration in industry is carried out mostly by means of compression cooling and in some cases by absorption cooling. The basic technology has remained unchanged for many years, but recently the pace of developments has increased. The high ozone depletion potential of refrigerants has led to a major drive to replace CFCs (chlorofluorocarbons) with more environmentally acceptable refrigerants.  
(A) Absorption cooling uses fewer CFCs than compression cooling.  
(B) CFCs were developed in response to more eco-friendly chemicals.  
(C) The use of CFCs in industry has been forbidden recently.  
(D) CFCs are partially responsible for the disruption of the ozone layer.

## Vocabulary

The word  in the passage is closest in meaning to

- |                   |                   |               |                |                   |
|-------------------|-------------------|---------------|----------------|-------------------|
| 1 deities         | (A) disciples     | (B) splinters | (C) divinities | (D) fillets       |
| 2 record-breaking | (A) heterogeneous | (B) regardful | (C) impartial  | (D) unprecedented |
| 3 acceptable      | (A) absurd        | (B) tolerable | (C) taciturn   | (D) restful       |

4. The last pre-historic cultural development in North America was the Mississippian Culture, thriving from approximately 800 A.D. until the arrival of European explorers. Although the Mississippian people were of significantly larger physical stature than the European explorers who encountered them, they had no immunities to the explorers' diseases; even the common cold was fatal. Accordingly, the spread of diseases introduced by the Europeans hastened the decline of the Mississippian Culture.
- (A) Incapable of physically overcoming the Mississippian people, Europeans introduced lethal diseases into their culture.
- (B) Despite their large size, the early people of the Mississippi were overwhelmed by Europeans.
- (C) The Mississippian people lacked the ability to fend off the illnesses carried by Europeans.
- (D) Europeans had no intention of treating the Mississippian people for their cold.
5. Portraiture was the most prevalent art form among itinerant painters in the American Northeast. These artists spent their careers on the road seeking commissions. While most developed distinctive styles and artistic methods, all of their works betrayed the common circumstances of their nomadic production in rural America, and all are indebted in some measure to academic conventions. The poses, props, and settings for country portraits were not different from those employed by artists in the cities.
- (A) Very few people outside of urban centers wanted to have portraits of themselves made.
- (B) Urban artists had developed much more advanced techniques than rural counterparts.
- (C) Most of the rural American towns did not offer enough business to employ artists.
- (D) Many of the portraits based in rural areas were indistinguishable from those found in urban areas.

**Vocabulary** The word  in the passage is closest in meaning to

- |             |                |                    |                |                  |
|-------------|----------------|--------------------|----------------|------------------|
| 4 stature   | (A) height     | (B) imprint        | (C) mixture    | (D) accuracy     |
| hastened    | (A) foundered  | (B) grazed         | (C) sped up    | (D) parceled out |
| 5 itinerant | (A) gallant    | (B) traveling      | (C) connate    | (D) ecumenical   |
| conventions | (A) boundaries | (B) constellations | (C) avocations | (D) usages       |

● If the statement for each passage can be inferred from the passage, mark T, otherwise mark F.

6. Great horned owls, when they are awake, use their hearing to hunt at night. Their ears are located on the sides of the head, but are off-set, not symmetrical like human ears. The openings of the ears are slightly angled in different directions – often the right ear is longer and is set higher up on the skull. Plus, owls have soft feathers that surround the openings which they can spread to make a funnel for sound to enter the ear. This enables the owl to use triangulation to identify the source of a sound, when the prey cannot be seen. By tilting until the sound is of equal volume in each ear, the owl can pinpoint the direction and distance of the sound.

- \_\_\_\_\_ (A) The asymmetrical ears of the great horned owl are due to a genetic defect.  
\_\_\_\_\_ (B) Head movement of great horned owls is an instrumental factor in their determination of exact sound location.  
\_\_\_\_\_ (C) Great horned owls do not resort to their hearing except to hunt.  
\_\_\_\_\_ (D) The absence of feathers around great horned owls' ear openings would be detrimental to their ability to locate sound origins.

7. The Pony Express National Historic Trail was used by young men on fast paced horses to carry the nation's mail across the country, from St. Joseph, Missouri to Sacramento, California, in the unprecedented time of only ten days. Organized by private entrepreneurs, the horse-and-rider relay system became the nation's most direct and practical means of east-west communications before the telegraph. Though only in operation for 18 months, between April 1860 and October 1861, the trail proved the feasibility of a central overland transportation route, and played a vital role in aligning California with the Union in the years just before the Civil War. Most of the original trail has been obliterated either by time or human activities. Along many segments, the trail's actual route and exact length are matters of conjecture. However, approximately 120 historic sites may eventually be available to the public, including 50 existing Pony Express stations or station ruins.

- \_\_\_\_\_ (A) Before Pony Express, it took more than 10 days for mail to travel across the country.  
\_\_\_\_\_ (B) During the Civil War, many of the Pony Express tracks served as transportation routes for the troops.  
\_\_\_\_\_ (C) It is difficult to know the precise route and the length of the original Pony Express trail.  
\_\_\_\_\_ (D) Pony Express stations have been completely destroyed.

**Vocabulary** The word        in the passage is closest in meaning to

- |             |               |                 |                  |                 |
|-------------|---------------|-----------------|------------------|-----------------|
| 6 prey      | (A) plumage   | (B) hole        | (C) game         | (D) freight     |
| 7 aligning  | (A) biting    | (B) affiliating | (C) outstripping | (D) vexing      |
| obliterated | (A) unraveled | (B) fettered    | (C) rebuked      | (D) blotted out |



8. Before the American Revolution most people in the British North American Colonies considered themselves loyal subjects of the British Crown, with the same rights and obligations as people in Britain. However, under the doctrine of mercantilism the British considered the Colonies more as a resource to be utilized for the benefit of their own economy and had little respect for the Colonialists. This difference in perception led to a vicious circle of Colonialists acting against what they saw as unfair policies, harsh British reaction, followed by stronger Colonial reaction, leading to even harsher British reaction – all of this spiraling into the revolution. As the Colonialists started rejecting the Crown, they also started becoming more radicalized in other ways, paying more attention to the idea of a broad democracy and to people like Thomas Paine, who not long previously, would have been condemned.
- \_\_\_\_\_ (A) It was unsurprising that the Colonialists were allegiant to the British Crown before the revolution.
- \_\_\_\_\_ (B) The British policy Mercantilism was most likely disliked by the people in the Colonies.
- \_\_\_\_\_ (C) The Colonialists were discontented with the British because they didn't apportion resources among the Colonies equally.
- \_\_\_\_\_ (D) The British actively worked to suppress democracy within the Colonies.
9. Invasive species are those plants, animals, and microbes not native to a region which, when introduced either accidentally or intentionally, out-compete native species for available resources, reproduce prolifically, and dominate regions and ecosystems. Because they often arrive in new areas unaccompanied by their native predators, invasive species can be difficult to be controlled. Left unchecked, many invasive species have the potential to transform entire ecosystems, as native species and those that depend on them for food, shelter, and habitat disappear.
- \_\_\_\_\_ (A) All non-native inhabitants of a region are potentially invasive species.
- \_\_\_\_\_ (B) Invasive species can be curbed when introduced with their natural predators.
- \_\_\_\_\_ (C) Animals relying on native species can readily adjust to invasive species.
- \_\_\_\_\_ (D) Deliberate introduction of invasive species is more harmful to an ecosystem than accidental introduction.

**Vocabulary** The word   in the passage is closest in meaning to

- |                |                |                 |               |                  |
|----------------|----------------|-----------------|---------------|------------------|
| 8 obligations  | (A) shards     | (B) congresses  | (C) duties    | (D) targets      |
| perception     | (A) cognizance | (B) context     | (C) obsession | (D) commendation |
| rejecting      | (A) enraging   | (B) rebuffing   | (C) endorsing | (D) impounding   |
| 9 prolifically | (A) covetously | (B) strenuously | (C) simply    | (D) copiously    |

10. After the colonists were settled and had been able to survive the first years of hardships, they found it more advantageous to make soap themselves using the copious amount of wood ashes, a natural result of their homesteading activities. With also a plentiful supply of animal fat from the butchering of the animals they used for food, the colonists had on hand all the ingredients for soap making. They did not have to wait for soap to be shipped from England and waste their goods or few pieces of currency in trade for soap.
- \_\_\_\_\_ (A) In the first years of hardships, colonists didn't know how to make soap.
- \_\_\_\_\_ (B) Clearing new land led to surplus amounts of soap making resources.
- \_\_\_\_\_ (C) The increase in soap production gave the colonists a new export.
- \_\_\_\_\_ (D) Colonists butchered excess animals to produce enough fat for soap.
11. The lure of gold is largely responsible for the speed with which white civilization spread beyond the Willamette Valley in Oregon during the 1850s and 1860s. Prior to the strikes in southern Oregon, towns and villages in that area were slowly being established along the routes connecting the Willamette Valley to California; once gold was discovered, miners, merchants, and scoundrels of every sort flooded into the valleys of the Rogue and Umpqua rivers. Boomtowns sprang up overnight, new roads were graded, and the power of the local Indian tribes was broken. When the mines were played out and the riverbeds would yield no more gold, the miners and prospectors moved on and left behind the infrastructure necessary to support farming communities and logging camps. Likewise, eastern Oregon was generally considered Indian country – few others wanted to live there – until the gold strikes in the Blue Mountains led to the forced relocation of the Nez Perce to make way for whites eager to exploit the newly-discovered gold fields. The search for gold became a dominant force not only in Oregon, but Idaho and Montana, as well, altering the patterns of settlement that had till then been driven by emigrants looking for farmland.
- \_\_\_\_\_ (A) Before the gold strikes, Indians were superior in number to other groups of people in eastern Oregon.
- \_\_\_\_\_ (B) After the gold strikes, the majority of the farming population shifted their career to mining.
- \_\_\_\_\_ (C) Once the miners departed southern Oregon, the remaining towns were economically devastated.
- \_\_\_\_\_ (D) The Nez Perce in the Blue Mountains were compelled to deport for gold in Idaho and Montana.

**Vocabulary** The word        in the passage is closest in meaning to

- |                |                 |                |                |                 |
|----------------|-----------------|----------------|----------------|-----------------|
| 10 ingredients | (A) elements    | (B) cargos     | (C) allowances | (D) barges      |
| 11 lure        | (A) pinion      | (B) similitude | (C) enticement | (D) temperament |
| scoundrels     | (A) celebrities | (B) tenants    | (C) vagrants   | (D) villains    |
| forced         | (A) compulsory  | (B) imperiled  | (C) erroneous  | (D) extravagant |

12. Pottery-making is a thriving art form at many of the Southwest Indian pueblos and on the Navajo reservation today. Much of it looks very contemporary, yet traditional methods are still used. Some of the pueblos well-known for pottery are Santa Clara, Hopi, and Santo Domingo. Pottery, old or new, is traditionally made without the use of a wheel. The walls of the piece are built up by coiling ropes of clay on top of one another, then scraping and smoothing the surface to obliterate any trace of the coils. After the pot has dried, a watery clay soup, called a slip, is wiped on the surface, and then polished with a smooth stone. If a design is to be painted, this is done after polishing, but before firing, which is mostly done outside in the open. The pots are placed on a metal grate and covered with scrap metal or large pottery fragments. The fuel, usually dried dung cakes or wood, is placed under, around, and over the pile and then ignited, and generally, the fire is simply allowed to burn down. If black pots are desired, the entire heap is completely smothered with powdered manure and fine ash after the fire has reached its peak.

1 According to the passage, what can be inferred about Santa Clara, Hopi, and Santo Domingo?

- (A) They depend largely on imported materials for pottery-making.
- (B) Their pottery is being expanded to meet the increasing interest of collectors.
- (C) They are concerned about imitations of their pottery by other Indian tribes.
- (D) They continue to employ traditional pottery-making techniques.

2 What can be inferred about pottery-making in the passage?

- (A) Pottery that has marks from the coils is not high quality.
- (B) Animal feces are avoided in producing black vessels.
- (C) Painting on a design is feasible both before and after polishing.
- (D) The fire is always put out before it is burned down.

**Vocabulary** The word        in the passage is closest in meaning to

- |          |                  |                |                   |              |
|----------|------------------|----------------|-------------------|--------------|
| 12 trace | (A) promulgation | (B) impression | (C) stench        | (D) sham     |
| ignited  | (A) submitted    | (B) hoisted    | (C) solved        | (D) inflamed |
| peak     | (A) zenith       | (B) wrath      | (C) aboriginality | (D) reproof  |



13. When a rattlesnake is born, it has a small rounded tip on its tail known as the pre-button. Several days after its birth, the snake will shed its skin for the first time and lose this pre-button, to be replaced by a button. Even though this is the first segment of its rattle, it takes at least two rattle segments to produce any noise, the ability to be acquired with its next skin shedding. Thereafter throughout its life, it adds a rattle segment with each shedding. It is unusual to find more than eight or nine segments on a wild rattlesnake that has been captured because of the wear and breakage of the terminal segment. On rare occasions, rattlesnakes are found without a rattle and this condition will be permanent if the rattle matrix that forms the rattle segments has been lost or severely damaged. Each rattle segment is a separate piece, is not permanently attached, and is continually being pushed away from the tail by the addition of new rattle segments formed by the matrix. The protuberances of a single segment interlock loosely with the segments directly above and below it. When the rattlesnake vibrates his muscular tail, it causes each separate segment to bounce against the adjoining ones creating the buzzing sound.

- 1 According to the passage, which of the following can be inferred about a rattlesnake?
- (A) After a button comes into existence, it sheds its skin for the first time.
  - (B) A pre-button is stuck to its tail without being changed during its whole life.
  - (C) The number of its shedding times is not generally equal to the number of rattle segments.
  - (D) It is usually able to produce a sound with a single rattle segment.
- 2 According to the passage, it can be inferred that the farther the segment is away from the tail,
- (A) the smaller the segment is
  - (B) the older the segment is
  - (C) the solidier the segment is
  - (D) the smoother the segment is

**Vocabulary** The word    in the passage is closest in meaning to

- |             |                 |              |           |               |
|-------------|-----------------|--------------|-----------|---------------|
| 13 terminal | (A) confrontal  | (B) grab     | (C) last  | (D) tatty     |
| rare        | (A) downright   | (B) uncommon | (C) pure  | (D) unsparing |
| adjoining   | (A) dilapidated | (B) sensual  | (C) utter | (D) bordering |

14. How did writing start? No one can know for certain, of course, but there is one theory that has won considerable acceptance. In the Fertile Crescent land of Sumer, possibly as early as 8000 B.C., tokens such as small clay triangles, spheres, and cones were molded to represent sheep, measures of grain, jars of oil, and other goods. It is theorized that these tokens served a community as a means of keeping track of goods for the purpose of pooling and redistributing the community's resources. They were sometimes placed in burial sites, and may have also indicated gifts to the temple, tribute to a ruler, or tax payments. Basically, the shape of the token carried its meaning. Starting around 3700 B.C., the tokens were placed in hollow clay balls, a kind of envelope, for storage. It must have been frustrating that once the tokens had been sealed inside, there was no way to determine the contents without cracking the ball open. This was solved either by fixing an identical token in the ball's soft surface or leaving an impression by pressing the token against the wet clay before it hardened.

The next step toward writing was taken by scratching a representation of the token in the clay. Surviving specimens in museums do not match the shape of the tokens, indicating an important step toward abstract thinking. About 3100 B.C., the Sumerian invented numerals, separating the symbol for sheep from the number of sheep, so writing and mathematics may have evolved together. Diggings at Uruk show that the Sumerian advanced from simple pictographs to ideographic writing, in which a symbol represented a concept. Now writing was developing into a tool that could communicate ideas.

- 1 Which of the following can be inferred about various tokens in the passage?
- (A) Their shape varied depending on usage.
  - (B) They did not have any monetary value.
  - (C) Painting their surface was prohibited.
  - (D) They were products of early abstract thinking.
- 2 According to the passage, what can be inferred about the disadvantage of preserving the token in clay balls?
- (A) Distribution of the community's resources was hindered.
  - (B) It affected the invention of a numeric system.
  - (C) It caused the shortage of food receptacles.
  - (D) Multiple solutions were developed to settle the problem.

**Vocabulary** The word        in the passage is closest in meaning to

- |                 |                 |               |             |                 |
|-----------------|-----------------|---------------|-------------|-----------------|
| 14 considerable | (A) inscrutable | (B) ingenuous | (C) dumb    | (D) appreciable |
| hollow          | (A) empty       | (B) brimless  | (C) jammed  | (D) tidy        |
| specimens       | (A) scraps      | (B) obelisks  | (C) samples | (D) pits        |

15. The painted walls of the interconnected series of caves in Lascaux in southwestern France are among the most impressive artistic creations of Paleolithic humans. Although there is one human image, most of the paintings depict animals found in the surrounding landscape, such as horses, bison, mammoth, ibex, aurochs, deer, and felines. No vegetation or illustration of the environment is portrayed around the animals, which are represented in profile and often standing in an alert and energetic stance. Their vitality is achieved by the broad, rhythmic outlines around areas of soft color. In addition to the painted images, Lascaux is rich with engravings of animals as well as abstract designs, which all together were made in the absence of natural light.

The pigments were derived from readily available minerals and included red, yellow, black, brown, and violet. No brushes have been found, so in all probability the broad black outlines were applied using mats of moss or hair, or even with chunks of raw color. The surfaces appear to be covered by paint blown directly from the mouth or through a tube; color-stained, hollowed-out bones have been found in the caves.

Images of animals were superimposed on top of earlier depictions, which suggests that the motivation for the paintings may have been in the act of portraying the animals rather than in the artistic effect of the final composition. However, their purpose remains obscure. Most of the paintings are located at a distance from the cave's entrance, and many of the chambers are not easily accessible. This placement, together with the enormous size and compelling grandeur of the paintings, suggests that the remote chambers may have served as sacred or ceremonial meeting places.

- 1 What can be inferred about cave painters in Lascaux in the passage?
- (A) They illustrated solely animals and surrounding landscape.
  - (B) They produced their own sources of artificial light.
  - (C) They considered obliteration of paintings unnecessary.
  - (D) They had to excavate in order to reach the caves.
- 2 According to the passage, the bones found in the caves are believed to indicate that
- (A) they were remnants of the animals depicted on the cave walls
  - (B) artists adapted them to use in painting the walls
  - (C) they were ground into minute particles to make paint
  - (D) it was easier to paint with them than paintbrushes

**Vocabulary** The word        in the passage is closest in meaning to

- |             |                 |                |                 |                   |
|-------------|-----------------|----------------|-----------------|-------------------|
| 15 vitality | (A) liveliness  | (B) majority   | (C) premonition | (D) saturnineness |
| readily     | (A) perilously  | (B) fleetingly | (C) jointly     | (D) smoothly      |
| probability | (A) impetuosity | (B) likelihood | (C) peculiarity | (D) sequence      |



16. Thomas Jefferson was never more typically a child of the Enlightenment than in his youthful conviction that reason and inquiry may lead man away from whatever is false, twisted, and capricious in human affairs toward the truths inherent in the nature of things. Man had been too long alienated from nature and for centuries had been dominated by dogmatic authority and superstition, which were embodied, above all, in the alliance of kings and priests, Church and State. Now those false idols were crumbling, and man might take control of his destiny by discovering the laws of nature and using them in the service of the species. Newton had demonstrated the order of the physical universe; Locke had pointed the way to a science of mind as well as of government; Linnaeus and Buffon had begun to impose system on the chaos of living things; and Adam Smith, coincidentally in 1776, broached the idea of an autonomous economic order governed by immutable laws of nature. All such laws were permanent, universal, harmonious, intelligible, and beneficent, so man might feel at home in nature. The faith was aggressively secular, utilitarian, and progressive, its end being the increased freedom and happiness of humankind. In the great correspondence of their old age, Jefferson's glum friend John Adams liked to twit him on the exploded hopes of the Enlightenment. However, the sunny Virginian would have none of it and went to his grave believing that the future would be better than the past and that the advance of freedom was irreversible. As he told Adams, he steered his bark "with hope in the head, leaving fear astern."

- 1 According to the passage, what can be inferred about the Enlightenment movement?
- (A) It argued that man should return to nature and be freed from machinery.
  - (B) It claimed that false idols should be destroyed through violence.
  - (C) It pursued emancipation of human being by reason and inquiry.
  - (D) It was first introduced in the United States by Thomas Jefferson.
- 2 It can be inferred from the passage that John Adams was a man who
- (A) did not think highly of immutable laws of nature
  - (B) was optimistic about the future of humanity
  - (C) wondered about the feasibility of Jefferson's ideal
  - (D) was usually fond of making fun of Jefferson

**Vocabulary** The word   in the passage is closest in meaning to

- |               |              |                  |                 |               |
|---------------|--------------|------------------|-----------------|---------------|
| 16 capricious | (A) fickle   | (B) tragic       | (C) circumspect | (D) tertiary  |
| alienated     | (A) bypassed | (B) systematized | (C) estranged   | (D) protested |
| glum          | (A) cagey    | (B) sullen       | (C) spry        | (D) courteous |

정답 p.438

## [1] Steam Power

- 1 The general principle of exponential growth is that the larger something gets, the faster it grows. For example, under ideal circumstances, a single cell of the bacterium *E. coli* can divide every twenty minutes, each time doubling in size, and while the numbers increase slowly at first, within one day it would be equal to the size and weight of the Earth. In a socioeconomic context, steam power – widely regarded as the icon of the Industrial Revolution – intertwined the processes of industrialization and urbanization that fuelled spectacular growth in Britain's economy over the course of the 19<sup>th</sup> century, the reverberations of which brought fundamental changes to all of Western civilization. While waterpower offered abundant and cheap energy, the steam engine rendered its severe geographical constraints redundant, thus serving as a catalyst for the wholesale relocation of industry away from rural areas and into large urban centers.
- 2 This device converted thermal energy into mechanical power by heating water in a boiler, channeling the resulting steam into a cylindrical chamber equipped with a piston, and then generating atmospheric pressure at intervals to move the piston up and down – potent nourishment that transformed commercial enterprises in the manufacturing industries. Steam-driven textile machines, for example, could spin multiple threads with the turn of a single wheel, and coordinate precise movements through levers, cams, and gears that allowed a single worker to weave more bolts in one shift than a team of pre-industrial artisans could turn out with weeks of muscle-powered toil. These machines needed fuel, coal, to create the heat necessary to make steam, and mining technology as a result also benefited from them.
- 3 In transport, high horsepower steam engines gave life to ships and locomotives. With the same precision, rapidity, and reliability as the pistons pumping up and down in the bowels of the vessels themselves, urban industrialists sped outbound into previously unreachable areas with tons of finished products, while raw materials zoomed into factories. Large factories were created to centralize the manufacture of goods since it was more cost-effective to construct single large buildings rather than multiple smaller factories. These factories which were initially built on the outskirts of the towns eventually expanded into the city, developing the first metropolises, a pattern which would be followed across all parts of Western Europe and America. The lure of jobs and a higher quality of life brought more than half of the entire English population into the cities and their housing, entertainment, and other requisite needs served to further increase the importance of urban areas.
- 4 ➡ Sociologists believe that this kind of urbanization leads to increased literacy, a notion supported by the fact that as of the 1840s, 65 to 70 percent of the English population had learned how to read, a progression that coincided with the advent of steam-powered printing presses. Previously, books were a rare and tightly-controlled resource because they were quite time-consuming and expensive to produce. These new machines,



however, could churn out millions of pages in a single day. Printing presses quickly flooded the modern world, allowing new forms of thought in the fields of politics, philosophy, and literature to be circulated amongst a vast, hungry, and profitable new audience from such writers as Marx and Nietzsche. This dissemination led to the development in the mass consciousness of such concepts as capitalism, communism, and existentialism, and also illuminated such issues as children's and workers' rights.

- 5 It also resulted in the rapid acceleration of scientific exploration. College curricula were established and graduate schools appeared. Workshops turned into laboratories, tinkering became industrial research, and the theoretical concepts behind individual inventions were organized into systematic innovations. Developers began to explore ways to evolve steam-driven centralized factory architecture into a more decentralized system, so that little motors could power factory devices in the hands of each and every worker. Ultimately, by the end of the 19<sup>th</sup> century, electricity had usurped the steam engine as the dominant power source of the time, although its ascension would not have been possible without the macrocosmic trailblazing of its predecessor.

1. According to the passage, what does the author state was the effect of the steam engine on England?
  - (A) It incorporated Britain in international economy.
  - (B) It motivated factory owners to move to pastoral settings.
  - (C) It was the source of economic growth in England.
  - (D) It gave more power to those with access to water power.
2. Which of the following can be inferred from the passage about waterpower generation?
  - (A) It was the most popular power source before steam.
  - (B) It was restricted to certain locations due to topography.
  - (C) Water in one area tended to be dried up in an instant.
  - (D) The construction of waterpower plants was too expensive.
3. The word *potent* in the passage is closest in meaning to
  - (A) mighty
  - (B) commendable
  - (C) quaint
  - (D) mutinous



4. Why does the author mention pre-industrial artisans in the passage?
- (A) To give an emphasis on their labor in old economy
  - (B) To highlight the lower quality of mass produced goods
  - (C) To provide an example of efficiency of muscle power
  - (D) To contrast mechanical production to their production
5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) As more people entered the cities, the quality of life in the urban areas began to significantly decrease.
  - (B) The boom in the entertainment and housing sectors vastly increased the population of many urban areas.
  - (C) Once people drawn by the economic opportunities moved into cities, the urban areas swelled to meet their demands.
  - (D) The population of England rose as a result of the influx of the population into urban areas in search of work.
6. According to paragraph 4, the author implies that the availability of books
- (A) considerably increased the workload of factory workers
  - (B) lessened the popularity of other forms of entertainment
  - (C) enabled early writers to republish their works more cheaply
  - (D) closely interconnected with the people's ability to read
- Paragraph 4 is marked with an arrow [➡].
7. The word consciousness in the passage is closest in meaning to
- (A) awareness
  - (B) conference
  - (C) dubiety
  - (D) craving
8. It can be inferred from the passage that electricity
- (A) led to more uses of steam technology
  - (B) made possible the production of smaller motors
  - (C) could decentralize the plant system
  - (D) decreased the demand for laborers
9. The phrase its predecessor in the passage refers to
- (A) system
  - (B) worker
  - (C) electricity
  - (D) steam engine

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The Industrial Revolution led by the steam engine drastically reshaped England in the 1800s.**

Answer Choices

- |   |  |
|---|--|
| (A) Constructing large factories permitted factory proprietors to centralize the manufacturing process in one location.           | (D) The cities which had easy access to ports had advantages of shipping the finished products at a small outlay.                        |
| (B) The application of steam engines in the manufacturing industries made it feasible to mass-produce goods efficiently.          | (E) The power needed to generate the steam came from the burning of coal for the most part.  |
| (C) Due to steam-driven mass production equipment, books became widely accessible and interests in scientific research increased. | (F) The improvement in transportation facilities powered by steam led to a better distribution of goods and the formation of big cities. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.443

## [2] Species

- 1 ➡ Fossils are the mineralized remains of plants and animals found in rock formations and along coasts, forming only in rare occasions when living material is covered by sediment, or falls into an anoxic environment such as a lakebed or ocean. The process of fossilization begins when the rotting organic remains are covered with layers of soil, sand, and other residue, replaced with hard minerals, and eventually compact to form solid rock.
- 2 As far back as the 17<sup>th</sup> century, naturalists began to use these fossil records to document the comparative anatomy of various species and develop a better understanding of the earth's diverse biology. One of the most startling observations coming to light from this research is that while some fossils resemble organisms alive today, others are drastically different. This would indicate that there have been changes to the number and kind of species that live on the earth and that these modifications may be related to the current set of living creatures.
- 3 In an effort to understand how and when these changes occur, naturalists have studied mineral deposits. They offer three distinct opinions about the observed alteration of the earth's organisms, one of which is the idea that plants and animals themselves do not change, but are replaced by different species. Whenever a new geological find reveals a different group of fossils, this is attributed to a mass extinction or catastrophe whereby the older species was wiped out. The presence of the new organism is explained by repopulation of the region by species migrating in from surrounding areas. Advocates of this theory, known as Catastrophism, are generally religious scholars who accredit all organic and inorganic creations to God, suggesting all species have existed unvaried since the moment the earth came to life.
- 4 ➡ Another assessment, developed by Jean-Baptiste Lamarck, is that changes take place over time as species acquire new characteristics and pass these on to the next generation. Lamarck speculated, for example, on the anatomy of giraffes, suggesting that the animals acquired their extended necks over many generations as a result of the gradual increase in lengths as shorter animals stretched to reach leaves on the branches of trees. It is believed that slight elongations were passed on to calves and eventually, numerous tiny accessions added up to the present existence of long-necked giraffes. Unfortunately, 'Lamarckism' fails to account for negative adaptations or aesthetic modifications that are not inherited by offspring, unless the organism is somehow able to determine whether or not to transfer certain traits onto its young.
- 5 Finally, the most contemporary opinion is that the refinement of abilities happens through natural selection, the tendency of organisms that are born with favorable adaptations to their environments to survive and produce new generations. Naturalist Charles Darwin first proposed this theory in 1859 based on a detailed and painstaking study of countless species he encountered during many ocean voyages, coupled with extensive reading on current thought in the sciences. In the Galapagos, for example, Darwin observed that each island gave way to a distinct variety of mockingbirds, which he believed had originated from one common ancestor, and those that were better able to obtain food were more



likely to live until maturity, mate, and eventually produce offspring. It is presumable that because the islands possess unique geological habitats, food sources may be different as well, meaning that dissimilar adaptations could be equitable and thus, bird populations were unmistakably diverse yet equally well-suited to their particular area. This solidified Darwin's belief in 'fitness,' or rather, the notion that organisms with advantageous mutations have a better chance of survival, and thus a greater opportunity to reproduce, eventually affecting a transformation in the entire population.

- 6 Today, researchers continue to flesh out Darwin's theory using contemporary genome studies. That is, they attempt to understand mutations at the molecular level and postulate that they arise when DNA is incorrectly translated from one organism to its offspring, wherein negative or positive effects are generated, the latter being more likely to help that animal or plant survive. Some now consider general adaptation to be organic evolution or, the accumulation of genetic mutations in populations of living organisms through many generations. Regardless of their opinion, the underlying foundation of modern science is that change itself is persistent and immutable, meaning that researchers can rely only on its presence while continuing to ponder the mechanisms.

1. Which of the following can be inferred about the fossil formation in paragraph 1?
- (A) Organic matters need to contain many minerals prior to covering.
  - (B) Contact with air inhibits the preservation of organic material.
  - (C) Only species that live in water can be preserved as fossils.
  - (D) The creation of fossils is a somewhat common occurrence.

Paragraph 1 is marked with an arrow [➡].

2. The word *diverse* in the passage is closest in meaning to
- (A) subtle
  - (B) multiple
  - (C) consistent
  - (D) vary
3. The word *others* in the passage refers to
- (A) species
  - (B) observations
  - (C) fossils
  - (D) organisms

4. According to the passage, which of the following would the proponents of Catastrophism most likely support?
- (A) Species remain in the same areas in which they were generated.
  - (B) There is no life that has been newly created ever since the origin of the earth.
  - (C) The emergence of fossils leads to the change in the surrounding environment.
  - (D) Mass extinctions pave the way for new features to form in surviving species.
5. In paragraph 4, why does the author mention long-necked giraffes?
- (A) To offer experimental proof that Lamarck's theories are superior to others
  - (B) To give an explanation of how new adaptations appear according to Lamarck
  - (C) To set up a contrast of Lamarck's opinion with Darwin's opinion
  - (D) To show Lamarckism's ability to contradict previously observed phenomenon
- Paragraph 4 is marked with an arrow [➡].
6. What can be inferred about the inheritance of traits using Lamarckism in the passage?
- (A) Only traits which confer an advantage are passed down to successive generations.
  - (B) Organisms are incapable of changing their appearance in response to the environment.
  - (C) Organisms can control which traits are to be acquired by their offspring.
  - (D) Inheritance of adaptations requires strong competition among the previous generations.
7. The word **tendency** in the passage is closest in meaning to
- (A) consensus
  - (B) complement
  - (C) remedy
  - (D) inclination
8. According to the passage, the type of mockingbirds in the Galapagos became diversified because
- (A) they were anxious to increase the amount of offspring they had
  - (B) their ancestors adapted to their distinct habitats in different ways
  - (C) the females only wanted to mate with males with specific traits
  - (D) random mutations disseminated new traits through the various populations





### [3] Violence

- 1 Vicious crimes can contribute to a sense of unease among citizens who feel defenseless against the perpetrators. Continued concern over public protection has triggered recurring discussions about violence in media, political and social arenas, and the proliferation of a plentitude of theories about the cause of violence, which attribute it variously to war, drug addiction, class or race frustrations, even suggesting that it is inherently present in cultural identity. As part of an effort to understand the predisposition to violence, scientists have attempted to speculate on a biological explanation for this behavior.
- 2 ➡ Some scientists have considered a direct relationship between the likelihood a person will commit a violent crime and the level of serotonin, an organic compound believed to play an integral role in the regulation of mood, sleep, sexuality, and appetite, present in the brain. In the central nervous system, serotonin is part of the biochemistry that is related to several psychological conditions; depression, migraines, bipolar disorder, and anxiety are all linked to an overproduction or underproduction of the compound. If violent behavior could be clinically linked to an imbalance in brain chemicals, then scientists would be able to control aggressive tendencies through medication before the behavior escalates.
- 3 ➡ The first government sponsored study into the possibility of inherited propensity for violence was conducted in 1998 by the Violence Initiative Project, which was led by two Columbia University professors, covering a wide scope of interdisciplinary subjects such as biochemistry, neurophysiology, and genetics. The team chose to examine the brains of 34 young boys, none of whom had previously committed a violent act. They were selected because each had an older sibling (all boys) who had been incarcerated for a violent crime. The scientists assumed that the younger brothers would display a similar inclination toward violence as their older siblings and thus hypothesized that they would exhibit low levels of serotonin, which is genetically determined. During the test, the subjects fasted for 12 hours, drank only water, and were administered an oral dose of fenfluramine hydroxide, a volatile chemical that, when consumed, heightens serotonin levels in normal brains and produces severe mood-related side effects, such as the abnormally high incidences of fatigue, headache, and irritability. By introducing the chemical, researchers claimed that they would be capable of raising their subjects' supposedly low serotonin levels to those of average brains and that medication would, regardless of race, class, or any other environmental stressors, inhibit their desire for executing violent acts.
- 4 ➡ While withdrawing hourly blood samples of the subjects to test brain chemistry, the scientists disproved their own theories because the medicated younger siblings, 44% African-American and 56% Hispanic, in fact, began to show some of the side effects of the drug, indicating that fenfluramine hydroxide had not balanced serotonin levels, but actually produced an abrupt spike. A complete post-trial review, which compared pre-trial samples with the hourly samples, revealed that the boys did not possess the expected lower than average serotonin levels, challenging the professors' main argument.
- 5 Social scientists examining the clinical tests promptly suggested that the main reason for the failure of the professors to link serotonin to violence was because aggressive behavior

is determined through a variety of mitigating factors, including a prior history of offensive behavior, childhood experiences, and socio-economic status. According to common social theories, children who are exposed to violence and situations in which they are hurt either physically or emotionally often display tendencies toward hurting others, and sociologists are quick to point out that this is based not on biology, but rather on circumstances. In fact, studies with twins raised in different households, one violent and one non-violent, evidently show that the causation is exposure, not genetic similarity. In addition, criminologists warn that heredity cannot be seen as a driving force behind the predisposition to violence because it denies personal responsibility of the perpetrator, makes judgments of individuals who have never committed a violent act based on biology, and fails to address a myriad of social agents influencing behavior.

- 6 According to social scientists, any scientific study that excludes data about the test subject's historical and social background should be considered reductionist, having a tendency to use an inadequately simple set of structures to explain a more complex one. In response, clinical researchers have adjusted many of their clinical trials to account for differences in social and historical context.

1. The word *unease* in the passage is closest in meaning to
  - (A) irresolution
  - (B) despair
  - (C) anxiety
  - (D) euphoria
2. It is implied in paragraph 2 that the goal of research into the biological cause of violent behavior is to
  - (A) understand how the brain chemistry reacts to artificial drugs
  - (B) develop medicines to prevent violent actions from occurring
  - (C) increase the ability of society to recognize potential threats
  - (D) encourage those at risk to go through an examination

Paragraph 2 is marked with an arrow [➡].

3. The word *they* in the passage refers to
  - (A) professors
  - (B) scientists
  - (C) younger brothers
  - (D) older siblings

4. It can be inferred from paragraph 3 that the subjects' older brothers

- (A) ceased from their violent acts completely
- (B) passed their traits to the subjects
- (C) refused to take medicinal therapy
- (D) had less than normal degree of serotonin

Paragraph 3 is marked with an arrow [➡].

5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) Those exposed to the environmental triggers of violence would be affected by the increase in serotonin fenfluramine hydroxide produced.
- (B) It was believed that the use of fenfluramine hydroxide would keep the subjects from employing violence by normalizing their serotonin levels.
- (C) Fenfluramine hydroxide was given to the subjects from various backgrounds in the belief that it would increase their serotonin levels.
- (D) Researchers had to adjust fenfluramine hydroxide according to the serotonin levels which varied depending on a variety of factors.

6. According to paragraph 4, analysis of the subjects' blood samples

- (A) led to confidence in the effectiveness of fenfluramine hydroxide on violent behavior
- (B) showed their serotonin levels were not below the average at the beginning of the experiment
- (C) proved that it was inappropriate for researchers to alter the serotonin levels by artificial means
- (D) supported the contention that older siblings were more apt to use violence than younger ones

Paragraph 4 is marked with an arrow [➡].

7. According to the passage, the author implies that the research done with twins

- (A) denies the argument that a combination of different elements causes violence
- (B) suggests that exposure to violence fosters a genetic predisposition to aggression
- (C) promotes the notion that inheritance is not a major factor in violence
- (D) recommends that scientific studies should be done with no consideration of historical background



8. The word **excludes** in the passage is closest in meaning to
- (A) leaves out
  - (B) encapsulates
  - (C) amasses
  - (D) disposes of
9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Studies on violence have focused on finding an underlying cause.**

- 
- 
-

Answer Choices

- |  |  |
|--|--|
| (A) Violence is a major concern among many people and is widely discussed in a variety of fields in society. | (D) Studies aimed at connecting serotonin to violence have not produced concrete evidence.                         |
| (B) Many scholars claim that environmental and social factors are the cause of the onset of violent conduct. | (E) Continued and abusive use of medicines is able to set off brute acts.  |
| (C) People who committed a violent crime have to take the responsibility under the law.                      | (F) Researchers have attempted to discover the intrinsic nature of violence by looking at biological determinants. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.446

#### [4] American Art and Literature

- 1 ➡ The American Revolution against Britain (1775-1783) was the first modern war of liberation against a colonial power, yet it was not until half a century later that America could claim its cultural independence from English literature and art. In the immediate decades following the military revolution, American authors and artists retained a lingering identification with England and indulged in a continuous imitation of English artistic models, while a complexity of economic and political factors on both sides of the Atlantic encumbered the promotion of their works. Indeed, cultural revolutions are not instantaneous and cannot be imposed, but must gradually evolve from a newfound set of sensibilities, a wealth of shared experience and within a climate of opportunity.
- 2 ➡ The accomplishments and aspirations of Benjamin Franklin (1706-1790) rendered him the prime exemplum for Americans of the Age of Enlightenment and for the generations that followed. Franklin's writings revealed an awareness of America as distinct in values and interests from those of England, and contributed to the creation of an American national identity. Through his proverbial literature of the self-help genre, as well as his acclaimed *Autobiography*, Franklin touted the attributes of industry, independence, and innovativeness that helped shape the American Revolution. By the early decades of the nineteenth century, the first wave of distinctly American fiction writers began to benefit from Franklin's establishment of a viable domestic publishing market and from his promotion of American culture overseas. Ushering in the era of American Romanticism, inspired and inventive authors portrayed uniquely-American subjects and historical perspectives such as westward migration, explored themes of change through nostalgic tones as culture increasingly impinged on nature, and forged original writing styles that evoked the vibrant imagery of the American landscape and the collective sentiments of the American people. The novelist Washington Irving (1789-1859), who penned such classics as "Rip Van Winkle" and "The Legend of Sleepy Hollow," was renowned for having devised imaginative means to humanize the vast American land and endow it with a set of legends all its own, ultimately recreating and helping to satisfy the young nation's sense of history.
- 3 The relationship between man and nature was indeed the quintessential element of American Romanticism and this interplay became the driving theme in the burgeoning nationalistic literary and artistic identities. Furthermore, the earlier European Romantic movement's tenets of the breaking off of old traditions, the revolutionary nature of culture, as well as individualism, easily transferred to serve nineteenth century American society's ideals of justice, liberty, and equality as the natural rights of man. An influential set of authors in New England developed a version of Romanticism called Transcendentalism, which was a philosophic and literary movement that promoted individuality and self-reliance and affirmed the validity of intuitive truth that was available to every man. The movement's chief spokesperson, Ralph Waldo Emerson (1803-1882), has been reputed as the father of American literature and as a man who articulated the new nation's needs and potential, becoming the archetypal American artist. At a time when many in the United States remained in awe of European culture, he urged Americans to reject their deference to old modes and values of Europe, as in his famous address "American Scholar" given at Harvard in 1837, in which he argued that Americans were self-reliant enough to develop a

literature reflecting their own national character: "Our day of dependence, our long apprenticeship to the learning of other lands, draws to a close." His calls to exploit the untapped materials of the nation inspired many of his contemporaries, as well as subsequent generations of writers and artists.

- 4 The ideals of Transcendentalism found visual embodiment in the creations of the first so-called school of American art, the Hudson River School, led by Thomas Cole (1801-1848). Just as Emerson had claimed that Americans should write about themselves in their own place, Cole noted in an essay published in 1836 that it was not necessary for artists to turn to Europe for inspirational subjects for their paintings: "Though American scenery is destitute of many of those circumstances that give value to the European, still it has features, and glorious ones, unknown to Europe. The most distinctive, and perhaps the most impressive, characteristic of American scenery is its wildness." The School helped form the mythos of the dominant American landscape in a Romantic aesthetic that was spontaneous and sweeping. Their paintings projected optimism for the future and admiration for the New World wilderness which they considered sacred and healing for the human spirit. These artists have been credited for legitimizing landscapes that were distinctively American as a subject matter for canvas and at the same time for infusing American artists with the confidence to turn away from European subjects and models to those of their own culture and of their country's ever-expanding frontier.

1. Which of the following can be inferred about American works of art in the late 18<sup>th</sup> century in paragraph 1?
- (A) They primarily described English life of the colonial period.
  - (B) It was quite uncommon to find British-style art in America.
  - (C) They were produced with the economic support of England.
  - (D) It was difficult to distinguish them from their British counterparts.

Paragraph 1 is marked with an arrow [➡].

2. The word *those* in the passage refers to
- (A) accomplishments and aspirations
  - (B) generations
  - (C) writings
  - (D) values and interests



3. According to the passage, what can be inferred about literature in the early 1800s?
- (A) Authors were more occupied with industry than with nature.
  - (B) American publications were available in foreign countries.
  - (C) Proverbial literature was in greatest demand in the local market.
  - (D) Fiction writers played a vital role in the American Revolution.

4. According to paragraph 2, authors of American Romanticism would most likely deal with
- (A) a well-known political figure in New England
  - (B) a sea voyage in the Atlantic Ocean
  - (C) a family living in log cabins on the frontier
  - (D) a battle between two powerful nations

Paragraph 2 is marked with an arrow [➡].

5. The phrase *this interplay* in the passage refers to
- (A) imaginative means
  - (B) a set of legends
  - (C) relationship between man and nature
  - (D) quintessential element
6. In stating that many in the United States remained in awe of European culture the author means that a lot of people in the United States
- (A) took satisfaction in European culture
  - (B) were in reverence of European culture
  - (C) deviated from European culture
  - (D) were in accordance with European culture
7. In the passage, why does the author quote “Our day of dependence, our long apprenticeship to the learning of other lands, draws to a close.” from Emerson’s speech?
- (A) To illustrate the degree to which American artists were prone to exploit the literary works from other countries
  - (B) To demonstrate that Emerson felt that Americans still had a few things to learn from European culture
  - (C) To give an explanation of why Americans were unwilling to incorporate the values of Europe into their literature
  - (D) To emphasize Emerson’s insistence that Americans should break away from the literary models of other nations

8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The Hudson River School led American artists to use their own culture and land for inspiration as well as depicted the American landscape in their paintings.
- (B) The focus on the American landscape and culture over traditional European subjects was the most significant achievement of the Hudson River School.
- (C) Once landscapes were viewed as legitimate subjects of paintings, the Hudson River School and other American artists began to reject European models.
- (D) The Hudson River School was given credit for their landscape paintings because their art portrayed American culture and its expanding territory.
9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Independence of American literature and art from England in the nineteenth century was a gradual process.**

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- 
- 

Answer Choices

- |  |  |
|--|--|
| (A) Transcendentalism inspired writers to compose pieces based on distinct American themes and subjects.     | (D) America's cultural revolution came as a result of the original works of Washington Irving.             |
| (B) American literature incorporated European Romanticism in order to clearly express natural rights of man. | (E) American authors influenced by Benjamin Franklin produced works of American Romanticism.               |
| (C) The American Revolution created an atmosphere that made English culture unpopular in American soil.      | (F) Painting in America was largely concerned with capturing the nation's unique physical characteristics. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.447

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# **PART 03** | **Recognizing Organization**

Chapter 7. Insertion

Chapter 8. Summary

Chapter 9. Category Chart

# CHAPTER 07 | Insertion

## Overview

Insertion 문제는 글의 흐름을 유기적이고, 자연스럽게 연결할 수 있도록 문제에 제시된 문장을 지문의 적절한 위치에 삽입하는 유형이다. 논리적 연관성이 부족한 곳에 삽입 문장을 넣음으로써 논리적으로 더욱 완벽한 글이 완성된다.

따라서 Insertion 문제를 제대로 풀기 위해서는 글의 흐름을 파악하고 문장과 문장이 어떻게 논리적으로 연결되어 있는지 알아보는 연습이 필요하다.

Insertion 문제는 보통 한 지문당 1개의 문제가 출제된다.

## Types of Questions

4지선다의 질문 형태와는 달리, 지문에 4개의 [■]이 표시되어 있으며 삽입될 문장이 제시된다. 지문의 [■]를 클릭하면 그 자리에 문제로 제시된 문장이 볼드체로 삽입되어 나타난다.

Insertion 문제의 전형적인 질문 유형은 아래와 같다.

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

삽입 문장

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

## 전략 1 삽입할 문장을 읽고 삽입 문장 내의 clue를 찾는다.

삽입 문장에는 어느 곳에 삽입되어야 논리적인지를 알려주는 clue가 들어 있다.

### ● 동일어구 반복

동일한 단어가 반복될 경우 동일한 단어는 근접하여 있다.

Ex The Olmecs built large earth and stone pyramids as centers for religious worship, and they produced huge sculptures and fine jade carvings. **Many of their sculptures mix human and jaguar-like features.**

➔ 볼드체 문장(삽입 문장)의 clue는 sculptures이다. 앞 문장에 sculptures가 언급되었으므로 그 문장 뒤에 위치하여야 한다.

### ● 지시어

대부분의 경우, 지시어를 포함한 문장은 지시어가 가리키는 대상이 들어있는 문장 뒤에 나온다. 삽입 문장에 자주 나오는 지시어로는 it, they, this, these, the former, some이 있다.

Ex Certain mechanisms prevent interbreeding between two different species, thus maintaining reproductive isolation. **These preserve the integrity of the gene pool of each species by preventing gene flow between different species.**

➔ 볼드체 문장(삽입 문장)의 clue는 these이다. 지시대명사 these가 가리키는 것은 앞 문장의 mechanisms이다.

### ● 연결어

연결어는 글의 흐름을 원활히 해주는 기능을 하므로, 연결어를 통해 글의 논리적 구조를 예상할 수 있다.

삽입 문장에 자주 쓰이는 연결어를 정리하면 아래와 같다.

부연	in addition, furthermore, moreover, also, as well, besides, first/second/third
대조	but, however, in contrast, on the other hand, on the contrary
비교	similarly, likewise
인과	due to, because of, therefore, consequently, as a result, thus, hence, in conclusion
예시	for example, for instance
조건	otherwise

Ex Many tropical bat species are dependent on nectar, pollen, and flowers and fruits of plants and are known to “track” the development of the plant resources. **Additionally, many bats rely on plants (especially trees) as roosting sites for varying periods of time.**

➔ 볼드체 문장(삽입 문장)의 clue는 additionally이다. 앞 문장에서 박쥐의 초목 의존에 대해 설명하고 있고 삽입 문장 역시 ‘박쥐가 초목을 보금자리로 이용한다’는 내용을 담고 있으므로 삽입 문장은 박쥐의 초목 이용에 대한 추가 설명이다.



● 정관사(the) + 명사

'정관사 + 명사'는 앞서 언급되는 '명사' 또는 '부정관사(a/an) + 명사'를 받는 것이므로, '정관사 + 명사'를 포함한 문장은 '명사' 또는 '부정관사 + 명사'가 있는 문장의 뒤에 위치한다.

Ex In competition, two or more organisms simultaneously require a single resource, which is usually in limited supply. **The resources for which plants commonly compete include water, light, soil minerals, and growing space.**

→ 볼드체 문장(삽입 문장)의 clue는 the resources이다. 따라서 '부정관사(a) + 명사'인 a single resource가 언급된 문장 뒤에 위치하여야 한다.

● 주제문

대부분의 글은 일반적인 사실이나 주장 또는 뒤에서 다룰 내용의 개요 문장, 즉 주제문이 먼저 나오고 그 뒤에 그에 따른 구체적인 설명, 예시, 근거가 나오는 두괄식 구조를 가지고 있다.

Ex **Chemical compounds can be divided into two broad groups, inorganic and organic.** Inorganic compounds are relatively small compounds of elements other than carbon. On the other hand, organic compounds are generally large and complex and contain carbon and usually hydrogen.

→ 볼드체 문장(삽입 문장)의 clue는 뒷부분에서 논의될 개념들(inorganic and organic chemical compounds)이 간략히 도입되고 있다는 것이다. 따라서 주제문이므로 맨 처음에 위치하여야 한다.

**전략 2** [■]가 표시된 부분의 주변 문장들을 읽으며 삽입 문장 내의 clue를 근거로 답을 찾는다.

삽입 문장에 들어있는 clue 뿐만 아니라 [■]가 표시된 문장들의 내용 또한 정확히 파악하여 삽입 문장의 위치를 찾는다.

Ex In terms of usage, stained glass is commonly associated with religious purposes. For centuries, stained-glass windows, as featured in churches and cathedrals, were regarded as expressions of faith and loyalty. ■ It was not until the Renaissance era that the purpose of stained glass changed to include non-religious uses. ■ During this time, stained glass gained popularity as a fashionable decoration for homes and public buildings, in addition to churches. ■ The glass used was essentially the same as in churches. ■ **However, the colors were changed from the traditional, royal-looking colors reserved for cathedrals to softer, muted shades considered appropriate in domestic windows.**

Clue 찾기

볼드체 문장(삽입 문장)의 clue는 역접관계를 나타내는 접속사 however이다.

Clue를 근거로 답 찾기

앞 문장은 삽입 문장과 반대되는 내용을 담고 있어야 한다. 삽입 문장에서 '색상이 교회에서 사용되었던 것과 달랐다'고 하였으므로 그 앞 문장에는 교회에서 사용되었던 것과 똑같았던 것에 관한 내용이 들어 있어야 한다. [■]가 표시된 문장들을 읽어보면 5 번째 문장이 그와 같은 내용을 담고 있음을 알 수 있다.

### 전략 3 [■]를 클릭하여 문장을 삽입한 후 문맥이 자연스러운지 확인한다.

문장을 삽입한 후에는 앞뒤 문장들과의 흐름이 자연스러운지 확인하여야 한다.

Ex Musical comedy theater, as seen upon the stages of New York's famed Broadway and in venues around the world, has taken many years to evolve. ■ The first traces of musical theater's origins can be found within the French and Viennese operettas of the 1800s. ■ **These musical plays achieved international popularity by offering European audiences a lighter version of full-length operas, and featured the lively integration of song, dance, music and theater.** Upon reaching the United States, however, the polished European works encountered a very different creative form: the rollicking American variety shows and bawdy musical revues of the era. ■ Although early forms of musical theater such as minstrel shows, burlesque and vaudeville often relied upon crude slapstick and racial stereotypes for their humor, it was not long until US playwrights and composers took a cue from their European neighbors. ■ Clever, witty and melodic, the new comic operettas blended America's love for exaggerated humor with the live orchestras and lyrical songs of Europe, and the Broadway musical comedy was born.

#### Clue 찾기

볼드체 문장(삽입 문장)의 clue는 these musical plays이다.

#### Clue를 근거로 답 찾기

These musical plays가 가리키는 것은 앞문장의 French and Viennese operettas이므로 삽입 문장이 두 번째 문장 뒤에 위치해야 함을 알 수 있다.

#### 문맥이 자연스러운지 확인

These musical plays가 French and Viennese operettas를 가리키므로 앞 문장과의 연결이 자연스럽다. 또한 그 뒤의 문장은 '이러한 유럽의 세련된 작품들이 미국에서 새로운 형태의 뮤지컬을 만나게 되었다'고 하였으므로 삽입 문장에 뒤이어 나오는 문장과의 연결도 자연스럽다.

## Hackers Strategy Application

Water continuously circulates from the ocean to the atmosphere to the land and back to the ocean, providing a renewable supply of purified water on land. ■ Water moves from the atmosphere to the land and the ocean in the form of precipitation, such as rain, snow, sleet, or hail. ■ Water, then, evaporates from land and reenters the atmosphere directly or flows in rivers and streams to coastal estuaries, where fresh water meets the ocean. ■ The movement of water from land to the ocean is called runoff. ■ Water also seeps downward in the soil to become groundwater. Groundwater supplies water to the soil, to stream and rivers, and to plants. Ultimately, however, the water that falls on land from the atmosphere makes its way back to the ocean. Regardless of its physical form (solid, liquid, or vapor) or location, every molecule of water eventually moves through the hydrologic cycle.

1. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**This complex cycle, known as the hydrologic cycle, results in a balance between water in the ocean, on the land, and in the atmosphere.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

■ The tension between the nationalists and the underrepresented American merchants reached a breaking point in 1765, when a flurry of controversy arose in the colonies over the imposed Stamp Act, a law that raised the cost of postage, sending the additional profits back to Britain to pay for nationalist army services. ■ He was charged with smuggling, a move that further incited a revolutionary spirit. ■ Despite having the charges dropped, Hancock, along with colleague Samuel Adams, continued rallying against the infringing economic sanctions and coordinated a boycott on vessels carrying tea bound for the Boston harbor. ■ When the British passed the Tea Act, allowing the royalist East India Company to sell its goods to colonies directly at a lower cost than could be met by local merchants, Adams and 50 collaborators boarded the ships and smashed all cartons containing the tea, throwing them into the water. The act of vandalism, known as the Boston Tea Party, brought the struggle between the patriots and the government to light.

2. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**An upset protestor, John Hancock, who was vocal about his dislike of the Act, had his ship Liberty seized by customs officials.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.



1 전략 1 적용 삽입할 문장의 clue는 지시어 this complex cycle이다.

전략 2 적용 지시형용사가 포함된 this complex cycle이 가리키는 것은 첫 번째 문장에서 언급되는 대양, 육지, 대기에서의 물의 순환이다. 따라서 첫 번째 [■] 뒤에 삽입되어야 한다.

전략 3 적용 This complex cycle은 앞 문장의 내용, 즉 물은 육지에 재생 가능한 깨끗한 물을 공급하며 대양에서 대기와 육지로, 그리고 다시 대양으로 계속해서 순환한다는 것을 가리키므로 앞 문장과 연결이 자연스럽다. 또한 뒤의 문장에서는 대양, 육지, 대기에서 물의 균형을 가져오는 과정에 대하여 자세히 언급하고 있으므로 삽입 문장에 뒤이어 나오는 문장과 연결도 자연스럽다.

정답 1<sup>st</sup> ■

2 전략 1 적용 삽입할 문장의 clue는 '정관사 + 명사'인 the Act와 사람 고유 명사 John Hancock이다.

전략 2 적용 The + Act가 가리키는 것은 첫 번째 문장에 언급되어 있는 Stamp Act이며, 두 번째 [■]의 다음 문장의 주어 he가 가리키는 것이 삽입 문장의 John Hancock이므로 두 번째 [■] 뒤에 삽입되어야 한다.

전략 3 적용 The Act는 앞 문장의 Stamp Act를 가리키므로 앞 문장과 연결이 자연스럽다. 또한 뒤 문장에서 필수 혐의를 받은 것에 대해 언급하고 있으므로 삽입 문장에 뒤이어 나오는 문장과 연결도 자연스럽다.

정답 2<sup>nd</sup> ■

# HACKERS PRACTICE

- For each question, arrange the sentences in correct order.

1. (A) If the pollen is viable and compatible with the female tissue, it will produce a pollen tube that grows down into the ovary where fertilization of the ovule occurs, leading to the **formation** of a seed.
- (B) Pollination involves the transfer of the male gamete, pollen, from the anther (part of the male structure of the flower) to the stigma, the receptive female structure of the flower.
- (C) This transfer of pollen from one part of a flower to another may be accomplished in several different ways, but in most orchard situations the primary agents of transfer are bees, especially honey bees.

Answer \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

2. (A) Acid rain is more acidic than normal rain and is formed through a **complex** process of chemical reactions involving air pollution.
- (B) The sulfur and nitrogen compounds primarily come from manmade sources, such as industries, utilities, and automobiles.
- (C) The two most important pollutants that contribute to the formation of acid rain are oxides of nitrogen and sulfur dioxide, which react with moisture in the atmosphere to create nitric and sulfuric acid.

Answer \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

3. (A) Others rely on fat deposits for energy and wake up without eating. Animals may warm themselves up again to **restore** chemical imbalances that might occur during a low metabolic state.
- (B) Little brown bats, for example, may hibernate uninterrupted for as long as 83 days or they may awaken every 12 to 19 days. Some animals store food in their hibernacula (their winter retreats) and eat during arousal episodes.
- (C) Hibernation is not a continuous state. All hibernators **periodically** rouse themselves for hours to days, a behavior which is not understood since it uses up precious energy stores.

Answer \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

## Vocabulary

The word  in the passage is closest in meaning to

- |              |                  |                |                 |                   |
|--------------|------------------|----------------|-----------------|-------------------|
| 1 formation  | (A) extension    | (B) evolution  | (C) composition | (D) placement     |
| 2 complex    | (A) terse        | (B) sumptuous  | (C) despicable  | (D) sophisticated |
| 3 restore    | (A) rate         | (B) recover    | (C) ratify      | (D) recast        |
| periodically | (A) sporadically | (B) frequently | (C) presently   | (D) chronically   |

4. (A) Enzymes are needed to sustain life because most chemical reactions in biological cells would occur too slowly or would lead to different products without them. A malfunction of a single critical enzyme can result in severe diseases.
- (B) If this enzyme does not function, the resulting build-up of phenylalanine may cause mental retardation.
- (C) For example, phenylketonuria is brought on by a defect in the enzyme phenylalanine hydroxylase, which catalyzes the first step in the degradation of phenylalanine.

Answer \_\_\_\_ - \_\_\_\_ - \_\_\_\_

5. (A) Although not operas in the modern sense, these integrated entertainments fostered collaboration among the arts and prompted the theoretical justifications upon which true opera – and ballet, whose early development runs parallel – was built. The Florentine Camerata, a group of composers and dramatists active in Florence around 1600, set out to revive the great traditions of the classical Greek stage, in which music and drama reinforced each other.
- (B) In its origins, opera, like every other type of spectacle, expressed noble prerogatives and was staged in courtly settings. In seventeenth-century Italy, the birthplace of the form, lavish entertainments featuring fireworks and sensational effects as well as instrumental music, singing, dances, and speeches were staged to celebrate princely weddings or to welcome regal guests.
- (C) Toward this end, they developed recitative, a type of sung speech featuring the solo voice and an unadorned vocal line expressive of the text. Early operas, largely based on mythological themes and peopled with noble characters, promoted aristocratic ideals.

Answer \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**Vocabulary** The word        in the passage is closest in meaning to

- |            |                 |               |                  |               |
|------------|-----------------|---------------|------------------|---------------|
| 4 sustain  | (A) decoy       | (B) tease     | (C) uphold       | (D) proscribe |
| critical   | (A) crucial     | (B) urgent    | (C) reasonable   | (D) dangerous |
| 5 prompted | (A) intrigued   | (B) abided    | (C) consolidated | (D) provoked  |
| lavish     | (A) fascinating | (B) lucrative | (C) deluxe       | (D) vivid     |



6. (A) The eggs laid on such waters soon open to produce larvae. In the hot summer months, larvae grow rapidly, become pupae, and emerge one week later as flying adult mosquitoes.
- (B) The females of other species lay their eggs directly on the surface of still water in such places as ditches, street catch basins, streams that are drying up, and excavations that hold water for some time. This water is often stagnant and close to the home in discarded tires, unused wading and swimming pools, plant saucers, and even gutters and flat roofs.
- (C) All mosquitoes have four stages of development – egg, larva, pupa, and adult – and spend their larval and pupal stages in water. The females of some mosquito species deposit eggs on moist surfaces, such as mud or fallen leaves that may be near water but dry. Later, rain or high tides re-flood these surfaces and stimulate the eggs to hatch into larvae.

Answer \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

● Choose the sentence that best completes the blank in each passage.

7. An acid is a compound that dissociates in a solution of water to form hydrogen ions and negatively charged ions. Some acids are known as strong acids because they break up almost completely in water. Hydrochloric acid is a very strong acid because most of its molecules decompose, producing hydrogen ions and chloride ions. \_\_\_\_\_  
 \_\_\_\_\_. Vinegar, which is a dilute solution of acetic acid, is an example of a weak acid.
- (A) It is an important industrial chemical for many applications  
 (B) Each combines with a hydroxide ion of a base to form a water molecule  
 (C) Others, called weak acids, dissolve only slightly  
 (D) In a complex process and at a high energetic cost, it is secreted by parietal cells

**Vocabulary** The word        in the passage is closest in meaning to

- |               |                |                |               |                |
|---------------|----------------|----------------|---------------|----------------|
| 6 still       | (A) spotless   | (B) motionless | (C) boundless | (D) artless    |
| deposit       | (A) nourish    | (B) save       | (C) hurl      | (D) lay        |
| 7 dissociates | (A) pauses     | (B) segregates | (C) grumbles  | (D) offsets    |
| completely    | (A) previously | (B) resolutely | (C) possibly  | (D) thoroughly |

8. Primarily nocturnal, ringtails develop an aversion to daylight at a young age. As might be expected for such an agile animal, they inhabit rough, rocky habitats, usually not too far from water, although they can subsist without free water if their diet consists of high-protein prey or fruit and insects. \_\_\_\_\_. They den in tree hollows, rock crevices, other animals' abandoned burrows, or even abandoned buildings. Except in bad weather, they move frequently, rarely spending more than three straight nights in one den.
- (A) They are weaned by fall and can mate near the end of their second year  
(B) They have a seasonal diet, with plants being their favorite fall food, mammals and birds more common in winter  
(C) Dark brown to black hairs surround their large eyes, creating a prominent mask  
(D) In addition, they appear in semi-arid landscapes such as pinyon-juniper pygmy forests and oak woodlands
9. Like their cultural kin – the Mogollon and the Hohokam – in the deserts to the south, the earliest Anasazi peoples felt the currents of revolutionary change during the first half of the first millennium. Perhaps in a response to Mesoamerican influences from Mexico, they began to turn away from the nomadism of the ancient hunting and gathering life, their seasonal migrations attuned to the movement of game, the ripening of wild plants, and the material impoverishment imposed by the limitations of the burdens they could carry on their backs. \_\_\_\_\_. Over time, they acquired more possessions, stored food, made pottery, adopted the bow and arrow, and domesticated dogs and turkeys. They still hunted and gathered, not as their only avenues for acquiring food, but as a complement to cultivated corn, beans, squash, and other crops.
- (A) They started living in small hamlets  
(B) They buried their dead in a flexed position, fully clothed  
(C) They expanded their trading range  
(D) As part of ritual, they smoked tubular-shaped pipes

**Vocabulary** The word \_\_\_\_\_ in the passage is closest in meaning to

- |              |              |              |                  |                  |
|--------------|--------------|--------------|------------------|------------------|
| 8 aversion   | (A) emissary | (B) impunity | (C) antipathy    | (D) antidote     |
| rarely       | (A) seldom   | (B) slightly | (C) occasionally | (D) pretty       |
| 9 currents   | (A) drafts   | (B) tides    | (C) diversions   | (D) achievements |
| domesticated | (A) meddled  | (B) deformed | (C) treated      | (D) tamed        |

10. The passage of energy in a linear, or one-way, direction through an ecosystem is known as energy flow. Energy enters an ecosystem as the radiant energy of sunlight, some of which is trapped by plants during the process of photosynthesis. \_\_\_\_\_ . When the molecules are broken apart by cellular respiration, the energy becomes available to do work such as tissue repair, production of body heat, or reproduction. As the work is accomplished, the energy escapes the organism and disperses into the environment as low-quality heat. Ultimately, this heat energy radiates into space. Thus, once energy has been used by organisms, it becomes unavailable for reuse.
- (A) This amount of heat depends somewhat on the initial temperature of the water, which results in various different units
- (B) It can be readily transformed from one form into another
- (C) This energy, now in chemical form, is stored in the bonds of organic molecules such as glucose
- (D) This energy is directly proportional to the temperature of the object
11. Neptune is often seen as Uranus' twin planet. It is similar not only in size and color, but also in its chemical make-up. It was discovered in 1846 by Johann Gotfried Galle when he realized that it was difficult to predict Uranus' orbit. It became obvious that there must be something further away in space pulling on Uranus. \_\_\_\_\_. The giant blue planet, slightly smaller than Uranus at 49,500 kilometers wide, takes 165 years to orbit the Sun, meaning that it never completes a complete journey around the Sun during the lifetime of anybody on Earth. When space craft Voyager 2 arrived at Uranus in 1986, it revealed the planet to be a bland, boring world. Scientists expected Neptune to be the same. However, pictures from Voyager, when it arrived at the planet on August 24<sup>th</sup>, 1989, showed Neptune to be a deep blue-colored planet with white, wispy clouds in its atmosphere and the strongest winds in the Solar System.
- (A) This axis runs through the center of the planet
- (B) This object turned out to be Neptune
- (C) Beyond this are huge amounts of rock
- (D) This is because the planet is so far away from the Sun

**Vocabulary** The word  in the passage is closest in meaning to

- |              |                |               |                |               |
|--------------|----------------|---------------|----------------|---------------|
| 10 available | (A) accessible | (B) touchable | (C) plentiful  | (D) liberal   |
| accomplished | (A) kindled    | (B) continued | (C) achieved   | (D) faltered  |
| 11 obvious   | (A) extraneous | (B) evident   | (C) well-known | (D) opaque    |
| wispy        | (A) deluding   | (B) listless  | (C) thin       | (D) pecuniary |



12. Starting around 4000 B.C., traditional Chinese painting has developed continuously over a period of more than six thousand years. Its growth has inevitably reflected the changes of time and social conditions. In its early stage of development, Chinese painting was closely related to the other crafts, from pottery to the decorations used on the bronzes, carved jade and lacquerware. Among various painting styles, Landscape painting had already been established as an independent form of expression by the 4<sup>th</sup> century. \_\_\_\_\_ . The former used bright blue, green, and red pigments derived from minerals to create a richly decorative style. The latter relied on vivid brushwork and varying degrees of intensity of ink to express the artist's conception of nature, and his own emotions and individuality.
- (A) The range of subject matters dealt within it was extended far beyond religious themes  
(B) Then it gradually developed into the two separate styles of "blue-and-green landscapes" and "ink-and-wash landscape"  
(C) As a result, they have obtained more natural and richly varied colors  
(D) They produced paintings of such things as orchids, bamboo, pines, and cypresses to reflect their own ideals and character

● Read each passage and answer the corresponding question for each.

13. The long struggle for independence isolated the country artistically as well as commercially, but the years following the cessation of hostilities with Britain were ones of steady growth. ■ By the time the American Revolution began, many painters had gone abroad in pursuit of professional education and patronage, some never to return. ■ An artist, inventor, scientist, writer, museum founder, and great friend of George Washington, Peale accepted a commission in 1779 from the Supreme Executive Council of Pennsylvania for a full-length depiction of the general. ■ He subsequently produced many versions of this work, some with the assistance of his brother James, a noted portrait miniaturist and still-life painter. ■

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Others, like Charles Willson Peale, who studied in London between 1767 and 1769, returned to Philadelphia and fought in the war.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

Answer \_\_\_\_\_

**Vocabulary** The word isolated in the passage is closest in meaning to

- |               |                |                |                   |                 |
|---------------|----------------|----------------|-------------------|-----------------|
| 12 inevitably | (A) repeatedly | (B) originally | (C) progressively | (D) unavoidably |
| 13 isolated   | (A) astounded  | (B) insulated  | (C) explicated    | (D) halted      |

14. Igneous rocks result from the cooling of hot magma or lava. As the hot liquid cools, it turns yellow and then various shades of red, solidifying completely to form several types of igneous rock. A texture that is **coarse** or has large crystals that can be seen by the naked eye means that the magma cooled slowly. ■ The result is a rock known as granite. ■ If the rock has small crystals or a fine texture, the rock cooled quickly. ■ Granite and basalt are two of the most abundant types of igneous rocks. ■ If the rock has very few or no crystals, the magma cooled in just a few hours or days, producing a glass known as obsidian. These different types of rock illustrate the diversity of properties igneous rocks have.

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Basalt is an example of this type of igneous rock.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

Answer \_\_\_\_\_

15. Conservation in the United States has had a fairly recent history. Because America is so vast and its resources so abundant, environmental concerns did not come into question until 1900 when the **excessive** killing of egrets, spoonbills, and other showy birds forced Congress to enact a law against using bird feathers and stuffed birds to decorate women's hats. ■ This was considered landmark legislation for its time. ■ However, public interest in protecting birds and other animals tapered during the Second World War. ■ The war years saw the large-scale manufacture of insecticides for farming and ranching interests. ■ When dead birds began dropping out of the sky in the early 1960s, no one knew why until biologist Rachel Carson's book *Silent Spring* revealed how pesticides and other toxic chemicals move through the food chain, ultimately subjecting every human being to contact with the deadly chemicals. Suddenly, ecology became an important issue and the **clamor** that ensued compelled the American government to step in.

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**These were also used to poison rodents, wolves, and other forms of wildlife.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

Answer \_\_\_\_\_

**Vocabulary** The word  in the passage is closest in meaning to

- |              |               |                    |               |              |
|--------------|---------------|--------------------|---------------|--------------|
| 14 coarse    | (A) rough     | (B) immune         | (C) blunt     | (D) indecent |
| 15 excessive | (A) auxiliary | (B) extemporaneous | (C) meager    | (D) undue    |
| clamor       | (A) outcry    | (B) misgiving      | (C) aftermath | (D) mercy    |



16. Starting in 1898, American publishers printed and sold cards bearing the inscription, "Private Mailing Card, Authorized by Act of Congress on May 19, 1898." These private mailing cards were to be posted with one cent stamps (the same rate as government postals) instead of the previous two cent rate. This was perhaps the most important event in making the cards more popular. Writing was still only allowed to the front of the card as with government postals and previous pioneer cards. ■ Around 1900, the first "Real Photo" postcards, with real photographs and usually printed on film stock paper, appeared. Most "Real Photo" postcards were advertising and trade cards. ■ On December 24<sup>th</sup>, 1901, the U.S. government approved the use of the words "Post Card" to be printed on the undivided back of privately printed cards and granted publishers the right to drop the authorization inscription previously required by law. ■ This freed up the front as space for pictures or artwork and left the back for the address and a message. ■

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Although writing was still limited to the front of the card, other countries began to permit the use of a divided back around this time.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

Answer \_\_\_\_\_

17. Ballet began in the courts of Italy and France in the late sixteenth and seventeenth centuries. Dancing was considered an essential part of an aristocrat's education, and figured prominently in the spectacular pageants of the age. ■ Many of these court ballets involved figured dances, in which elaborately costumed performers moved through various geometrical formations; spectators might watch the patterns from above and often joined in a general ball at the end. ■ Court ballet effectively integrated various arts, including music, and poetic declamation as well as dance. ■ Louis XIV of France, for example, danced in several court ballets, including the Ballet de la Nuit of 1653, in which he portrayed the Sun Rising to lead a corps of virtues succeeding to the creatures of the night. ■ The role made Louis the focus of a superbly ordered multitude and expressed his official character as the Roi-Soleil (Sun-King).

Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**It also allowed theater and reality to merge – an effect on which the period's monarchs capitalized.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

Answer \_\_\_\_\_

**Vocabulary** The word  in the passage is closest in meaning to

- |               |                |                |                 |               |
|---------------|----------------|----------------|-----------------|---------------|
| 16 granted    | (A) graded     | (B) considered | (C) lent        | (D) bestowed  |
| 17 integrated | (A) influenced | (B) unified    | (C) interpreted | (D) performed |

정답 p.449



## [1] Geese

- 1 In North America, several species of birds migrate excessive distances south to avoid inhospitable conditions brought about by climatic fluctuations. ■<sup>1</sup>They return home unerringly every spring because the route and means are pre-wired into their genetic memory. ■ Others, most notably Canadian geese, lack this advantage. ■ Therefore, they must first assimilate passage parameters into their cognizance by emulating their parents. ■
- 2 ■<sup>2</sup>The sight of large skeins of Canadian geese making grueling journeys south in autumn and north in spring is now a firmly-entrenched rite of seasonal change in multiple parts of the North American continent. ■ On a biological level, diminishing daylight hours and decreasing temperatures set off a hormonal discharge in the pituitary gland that gives geese their basic itinerant compulsion. ■ On a more practical level, they are herbivores and feed primarily on grass and berries, which are plentiful in summer, but inadequate later, when heavy snow cover and freezing temperatures make moving and staying warm very exacting. ■ Accordingly, flying south affords them the comfort of wintering in a better climate that has much more food available, although the preponderance of southern foxes, coyotes, and various other predators compels the geese to return in the spring to nest in safer surroundings more suitable for the raising of goslings.
- 3 ➡ Both ways, the marathon is extremely arduous, and many fail to survive, particularly sick or weak members susceptible to starvation or exhaustion while struggling to keep up with a flock that can ascend to as much as 2,500 m in fair skies. Conversely, cloudy or stormy weather forces an entire group to significantly lower the altitude, running the risk of colliding into buildings, phone towers, airplanes, and the bullets of hunters, who often lie in wait along established migration lines to pick them off indiscriminately. An even greater nemesis, however, is land development. Rampant urbanization wipes out valuable resting spots, which forces them to fly further than they normally would, often well past reasonable thresholds of endurance.
- 4 Because of these multiple impediments, geese have evolved a series of special methods to withstand the taxing rigors of the journey through countless generations of habituation. The passing of the summer solstice brings gradually diminishing daylight hours, which serves as a signal for these birds to begin preparation by increasing the amount of food they eat. As a result of it, they can sustain themselves during the long flight and encase themselves in excess body fat that better insulates against the frigid temperatures of higher altitudes. During flight, they congregate in large flocks and fly in a V-formation, with the larger and stronger birds leading off to start, and then falling towards the rear as they begin to tire. This arrangement is extremely aerodynamic and drastically reduces the wind shear on the birds in the rear, where most of the young, who generally lack the strength to bear the full brunt of high winds, tend to fly. ■<sup>3</sup>This group coordination allows for much longer flight times without need for as many stops along the way for rest or food. ■ For example,

some that have a large number of goslings in tow will stop more frequently, while others will do the opposite if their total trip distance is relatively short. ■ One of the briefest known is the 16-hour, one day jaunt that some subspecies make from Hudson Bay to Wisconsin, while one of the longest ends up in Mexican territory. ■ As a broad generalization, the larger subspecies tend to breed further south than the smaller ones.

1. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Most are able to make the round trip instinctively.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

2. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**There are a number of motivations for these biannual sojourns.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

3. The word rite in the passage is closest in meaning to

- (A) fad
- (B) ovation
- (C) flake
- (D) ceremony

4. The word **exacting** in the passage is closest in meaning to
- (A) latent
  - (B) toilsome
  - (C) level
  - (D) commodious
5. According to the passage, why do the geese fly north in the spring?
- (A) There isn't enough grass in the south during the summer.
  - (B) The days get shorter and the temperature falls in the south.
  - (C) The environment in the south makes nest building difficult.
  - (D) A number of predators in the south put their young in jeopardy.
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Hunters are the greatest threat since they shoot geese indiscriminately as they prepare to land.
  - (B) A heavy storm endangers geese since it makes them more likely to fly into objects.
  - (C) Geese are put into much danger when weather conditions compel them to fly at lower levels.
  - (D) Due to the risk of crashing into high-rise buildings, it is better for geese not to fly in bad weather.
7. In paragraph 3, why does the author mention land development?
- (A) To describe a factor leading to overexhaustion among geese
  - (B) To stress the importance of sweeping up the land for geese's relaxation
  - (C) To compare current migration destinations with older ones
  - (D) To highlight the need for more environmentally friendly construction

Paragraph 3 is marked with an arrow [➡].

8. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**The frequency of pauses varies widely from group to group because Canadian geese learn their flight techniques from their parents, and are thus able to alter them as necessary, depending on the situation.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.



9. According to the passage, the advantage to flying in a V-formation is that

- (A) it makes the birds more recognizable to people on the ground
- (B) it lessens the degree of wind deformation on the rear birds
- (C) it ensures that the birds return to the proper site every year
- (D) it helps scientists follow the birds' annual migration patterns

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Canadian geese migrate according to seasonal changes from the north to the south and vice versa.**

- 
- 
- 

Answer Choices

- |  |   |
|--|---|
| (A) People have been able to teach young geese how to migrate properly.  | (D) Serious hurdles face the geese on every journey they make.                              |
| (B) The chemical alteration in the brain and the acquisition of provisions are the main causes for geese's journeys. | (E) A V-formation and accumulated fat help geese to migrate successfully.                   |
| (C) Flying at high altitudes is much colder than at lower ones .   | (F) The chemical alteration in the geese's brain is due to changes in weather and sunlight. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.455

## [2] Sound Film

- 1 By the early 1900s, the silent movie industry had grown into a successful international business, earning a firm position in the popular culture of the day. Without sound, the audience understood plot and character through exaggerated actions or visual cue cards displaying important text that were inserted into the storyboard at appropriate times. Occasionally, movie reels traveled the country with live musicians, adding soundtrack to enhance storytelling and live troupes would accompany each film and speak the dialogue of the on-screen actors, providing the audio to complement the images. This satisfied some members of the audience, but what people truly craved was to hear the natural speech patterns of their favorite stars.
- 2 The technology to reproduce dialogue already existed in the form of the phonograph, an early record player invented by Thomas Edison, which was sold to arcades where customers could pay to listen to a piece of music or a speech through an individual ear tube. ■<sup>4</sup>Similarly, the Kinetoscope, an elaborate device that used spinning disks to play short animated films, imprinted onto cylinders or longer strips of celluloid that would turn from one spindle to another, was wildly successful in specialized movie parlors. ■ However, the images were only observable through a tiny peephole cut into the box that housed the functioning apparatus, an intentional design characteristic that ensured the sale of multiple units to one cinema. ■ Kinetoscopes satisfied customers in an inefficient one-to-one ratio way, obliging business owners to purchase as many machines as they could afford to accommodate growing demand. ■
- 3 More than two decades later, the Kinetophone was introduced by Edison, incorporating both the phonograph and the Kinetoscope. As a recording device, it functioned by lip-syncing actors' voices after the moving pictures had been captured or by using an armature to operate both recording functions at the same time. ■<sup>5</sup>For playback in the theater, two operators worked together, one in the projection booth and one in the orchestra pit with the phonograph. ■ Yet, the machine could hardly be labeled as a breakthrough. ■ Because the film was produced on a completely different machine, perfect playback was often marred when one or the other component was mistimed or failed. ■ Theater owners complained about faulty synchronization of sound and picture, a consequence of Edison's poor conceptualization of its implementation in the theater environment. In addition, there were audio problems related to the phonograph's inability to produce a sound level that would fill a large space. While the film was simply projected onto a screen, the audio had to come from speakers without the aid of electronic amplification.
- 4 These limitations were overcome by Lee De Forest who patented a method of amplifying sounds leading to the introduction of the monotone loudspeaker in 1925. The new speakers were able to project sound loud enough to reach all customers in a theater filled to capacity and newly conceived electronic condenser microphones recorded better audio quality by helping to filter out background noise while capturing crisp vocalization. This new system dubbed the Vitaphone captured public attention in the fall of 1927 with the release of *The Jazz Singer*, the first "talkie," or, talking picture. ■<sup>7</sup>Word-of-mouth spread and soon

paying customers were lining up at the cinema to get a look at this state of the art technology, and more importantly, to hear the dialogue of the film's star Al Jolson. ■

- 5 Despite overcoming many technical restrictions, the Vitaphone still suffered from synchronization problems as well as the burden of distribution since it had to deliver records, which could only be played for several screenings, along with all of the films. ■ As the fidelity of sound on film increased, it quickly became the media of choice for "talkies" and ushered in a new wave of public interest in filmed entertainment, and represented the beginning of newfound respect for the industry. ■

1. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) The theaters would provide the audience with live music and instant performances to draw the audience's interest in storytelling.
  - (B) Music was so important to understanding the plot that live musicians were needed to play at performance of the movies.
  - (C) Since there was no sound by the early 1900s, people in the audience would read the dialogue of the actors out loud with live musicians.
  - (D) Musicians and troupes would sometimes go along with the films to provide the background sound or speak the parts of the actors.
2. The word *craved* in the passage is closest in meaning to
  - (A) disdained
  - (B) longed for
  - (C) recognized
  - (D) hung to
3. The word *obliging* in the passage is closest in meaning to
  - (A) absolving
  - (B) impelling
  - (C) stupefying
  - (D) illuminating



4. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Attempting to maximize return received on investment, they pined for a Kinetoscope that would project the moving pictures onto a white screen for the pleasure of larger paying audiences.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

5. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**They timed their motions to start the film rolling as the needle was dropped on the record.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

6. According to the passage, the main way the Vitaphone improved over the Kinetophone was

- (A) the use of electronic devices for amplifying sound
- (B) the time at which the movie was released to the public
- (C) the amount of people who could watch the movie at one time
- (D) the number of operators that were required for playback

7. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**For these reasons, the Vitaphone did not maintain its dominance of the industry for long as a newer technology, sound on film, quickly usurped it.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

8. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

**The development of sound film took place over a series of stages.**

- 
- 
- 

Answer Choices

- |   |  |
|---|--|
| (A) Live musicians made it possible to convey the plot of film to audiences of hundreds of spectators.  | (D) Monotone loudspeakers and electronic condenser microphones were introduced to improve sound. |
| (B) The attempt for synchronizing sound and picture was of a help toward the advancement of sound film. | (E) Thomas Edison's design of the Kinetoscope was well received by theater owners.               |
| (C) <i>The Jazz Singer</i> was the first movie to include dialogue between actors.                      | (F) Early reproduction of sound in film was based on the phonograph and the Kinetoscope.         |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.456

### [3] Airplanes

- 1 ■<sup>1</sup>For millennia, people have observed the flight of birds and made attempts at imitating their graceful voyage through the sky. ■The question of how something heavier than the atmosphere could become airborne was an ostensibly insurmountable problem for these early designers. ■
- 2 Amazingly, it was not until the 19<sup>th</sup> century that the kite, a seemingly weighty object, would provide an answer to the advancement of aerodynamics. ■The key to its flight lies in its ability to counteract gravity by managing air flow as wind pushes against the kite's flat undersurface and causes it to elevate. The pressure keeps the body aloft and is similar to that which allows birds to maintain height while soaring or hovering.
- 3 ➡ Based on those observations, a milestone in aviation was finally achieved in 1853, when the first successful manned flight took place in Yorkshire, England. The vessel was a glider, essentially modeled after the kite, but large enough to be fitted with cargo. Designed by British innovator, George Cayley, it was a rudderless fixed-wing aircraft with curved wings and a dihedral space for the pilot, based on the anatomy of herons that Cayley had shot down during his many hunting expeditions. During initial flights, it was pulled swiftly downhill by six workers using a rope until it caught the wind and raised up about 100 feet, flying a short distance before crashing into the field. This simple test paved the way for a watershed of subsequent research into the ability to control direction and maintain altitude.
- 4 The advance of directional control, allowing the pilot to better bridle the machines, would stem from a scientific inquiry into the principles of efficient aerodynamics. ■<sup>7</sup>Although mathematical work had been done to determine the important engineering formulas required for flight, two aviation pioneers, Orville and Wilbur Wright, began to doubt the accuracy of this data after a series of disappointing flight trials and recognized the need for control of the aircraft once aloft. ■Consequently, they began a chain of meticulous experiments using a closed rectangular box fitted with a fan at one end, an air-tunnel to simulate pressure upon an assortment of surfaces and model planes to establish accurate formulas for flight. ■This caused one wing to rise and the other to fall much like modern ailerons and allowed for control over the plane's roll. ■A later improvement, the rudder, gave the pilot additional control over the lateral movement of the craft.
- 5 Now that initial lift and navigation were achieved, what remained was to power the craft to provide the adequate amount of air pressure in less than optimal wind conditions and sustain momentum. The first effort came using steam engines, but despite many attempts, mastering full-scale versions proved impossible because the tremendous weight of the machinery prohibited its ability to lift off the ground. The solution came from the new lighter-weight, internal-combustion engine, which had recently been developed in the extended use of the emerging automobile industry. On December 17, 1903, the application of this gasoline powered motor contributed to the first self-propelled, manned, and piloted air flight, lasting 12 seconds and traveling at a pace of approximately 30 miles per hour (50 kilometers per hour).



- 6 Although the efficiency of the combustion engine models would exponentially increase in the next fifty years, the capability of this generation of planes could not compare with modern jets. ■<sup>10</sup>Until the first flight of a jet powered aircraft in 1939, airplane motors spun propellers mounted on the front of the plane, pushing through a large amount of air at a relatively slow rate. ■ Engines in the jet powered aircraft, on the other hand, are placed on the wings or on the rear of an airplane and accelerate the air that is sucked into the motor by passing it through a series of circular blades that turn at an increasing rate. ■ This innovation has allowed for over a 2,000 percent increase in airspeed and the modern, efficient mode of transportation that is readily available today. ■

1. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**While some have harnessed artificial wings composed of feathers, others have devised complex machinery, such as Da Vinci's ornithopter, all to no avail.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

2. The word insurmountable in the passage is closest in meaning to
- (A) resistant
  - (B) invariable
  - (C) contagious
  - (D) insuperable
3. The word that in the passage refers to
- (A) wind
  - (B) kite
  - (C) pressure
  - (D) body

4. According to paragraph 3, which of the following can be inferred about the pilot of the glider?
- (A) He needed to start outside the craft to help it attain speed promptly.
  - (B) He aided the Wright Brothers to design their own airplanes.
  - (C) He refused to fly far because of a possible clash into the field.
  - (D) He was not able to steer toward the direction he wanted to fly.

Paragraph 3 is marked with an arrow [➡].

5. The author mentions the anatomy of herons in the passage in order to
- (A) explain how dihedrals affect flight performance
  - (B) show where Cayley got his inspiration from
  - (C) contrast an animal's flight with a glider's
  - (D) demonstrate that Cayley was a skilled hunter

6. The word meticulous in the passage is closest in meaning to
- (A) scrupulous
  - (B) incredulous
  - (C) elementary
  - (D) classic

7. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**With this newly acquired data, they developed a method to warp the wings of the craft.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

8. The passage states that the gasoline powered engines were more effective than steam engines because
- (A) they were smaller
  - (B) they weighed less
  - (C) they didn't need water
  - (D) they cost less
9. According to the passage, jet powered aircrafts differ from other crafts in
- (A) the moment of the wind resistance
  - (B) the position of the propulsion systems
  - (C) the need of air to give positive lift
  - (D) the ability to control the flying speed

10. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Before exiting, the air is raised to an incredible speed, at which point fuel is added directly to it and ignited, thus moving a smaller amount of air, but an explosively faster rate.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The evolution of the manned flight progressed rapidly once the basic principles of aerodynamics were discovered.**

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Answer Choices

- |  |  |
|--|--|
| (A) The ailerons in modern planes allow pilots to control the lateral roll.                      | (D) The first plane was a glider that didn't have any propulsion or steering devices.            |
| (B) The Wright Brothers introduced control mechanisms for the craft.                             | (E) Planes were outfitted with engines that provided power in conditions with little or no wind. |
| (C) A kite could stay aloft by reducing the weight of the materials to make it lighter than air. | (F) The steam engine was consistently considered viable despite weight constraints.              |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.457



#### [4] Solution Caves

- 1 Caves are natural cavities, which reside in the Earth's topography, and feature rich geographical formations. Also called caverns, they develop in various rock types, and are the end result of several different processes, including glacial recession, volcanic activity, or water abrasion. The most common type of formation, a product of mild chemical reactions, is a solution cave system, which contributes to karst terrain, a combination of geological phenomena generally characterized by rugged landscape, exposed ledges, chaotic surface drainage, and sinkholes.
- 2 ➡ ■<sup>2</sup>Mammoth Cave of Flint Ridge in south central Kentucky, which has been surveyed at over 500 kilometers in length, is the longest spelunked cave tract on record. ■ In fact, the growth cycle of caverns can be described as being short-lived. ■ They may sit in the initiation stage for several thousand years, and then move through an enlargement phase and a stagnation phase before undergoing deterioration within a few million years. ■
- 3 The birth of a solution cave begins with an elongated initiation phase, lasting anywhere from 3,000 to 10,000 years, during which time naturally acidic rainwater is absorbed into the soil covering a foundation of limestone, an impermeable rock formed by compression of carbon-based deposits over millions of years. ■<sup>4</sup>Because the water cannot settle within the limestone, it is forced to make its way toward the water table by pushing through tiny mechanical fractures, no bigger than 10 to 50 micrometers, between two bedding planes. ■ Erosion occurs when the acidic chemicals in the rainwater react with the slightly basic calcium carbonate, mostly in the form of mineral calcite, held in the bedrock. ■ Eventually, the fissures open to about five to ten millimeters wide (referred to as pencil-sized conduits). ■
- 4 At this point in the development, the cave enters the enlargement phase, where expansion is rapid (a three-meter-passage can develop in as little as 10,000 to 100,000 years) because the conduit provides an efficient water route. Normally, the pathway will become completely filled, and depending on local geography, a circular or elliptical passage will develop wherein the floor, walls, and ceiling dissolve uniformly. If the incoming water level recedes, the ceiling will be exposed to the air and no longer erode, but the walls and floor will continue to be altered by solution erosion, deepening the floor up to 30 to 50 meters and producing a canyon shape.
- 5 ■<sup>6</sup>What happens after the enlargement stage is directly related to the ongoing geological transitions that are occurring on the surface and in the drainage basin. ■ The cave passage may collapse if the conduit has developed below the water table, causing the ceiling to grow too wide to support the weight of the water above, and disappear from the terrain completely. ■ If surface streams downcut into the cavern system, enhance the hydraulic gradient and lower the water table, new passages form underneath the initial one and wholly divert the current below, leaving the original filled with air. ■
- 6 Caves that are left drained off water advance toward the stagnation phase and are easily discovered by human explorers because the downcutting valley produces entrances

accessible from the Earth's surface. ■<sup>8</sup>Dissecting erosion severs the conduits into small fragments by carrying sediments along the surface of hilly slopes and plateaus, while denudation of the surrounding geography finally breaks down the last vestiges of the conduits, halting the growth of the entire system. ■ Rainwater, however, continues to fall and makes its way downward toward the water table and because it is still reacting with the bedrock as it moves, it carries calcite, a crystallized mineral similar to chalk, leached from the limestone. ■ Throughout the next few million years, droplets from the ceiling make crystalline deposits that build up into formations such as stalactites (long tapered spike hanging from the ceiling), stalagmites (conical spikes rising up from the floor), and helictites (contorted spikes growing in any direction from the walls). ■

1. Why does the author mention Mammoth Cave of Flint Ridge in paragraph 2?

(A) To show the time needed for cave survey  
(B) To contrast solution caves with other types  
(C) To emphasize the necessity of spelunking  
(D) To provide an example of a solution cave

Paragraph 2 is marked with an arrow [➡].

2. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Although it has been estimated to be roughly two million years old, when compared with other geographical features in the area, it is relatively young.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

3. The word *deterioration* in the passage is closest in meaning to

(A) implacability  
(B) degeneration  
(C) infringement  
(D) chaos

4. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**This allows the percolating moisture to move at increasing velocities through each conduit, carrying insoluble particles out of the burgeoning cave system, like water flowing through a pipe.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) If air is introduced into the cave, it will force the water out, allowing the size of the space to grow significantly.
- (B) The rate of the solution erosion will become faster if the water level goes down and the air comes in.
- (C) When the water level drops, the erosion of the walls and floor keeps proceeding, but not the ceiling.
- (D) As the water recedes, it brings in air that is responsible for the continued erosion of the floor and walls.

6. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Alternatively, the tunnel may be abandoned if the veneers of insoluble sediment, left behind by flowage, accumulate on the floor and prevent further erosion.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

7. The word *vestiges* in the passage is closest in meaning to

- (A) entities
- (B) traces
- (C) faults
- (D) qualms



8. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**These secondary features, referred to as speleothems, are the main reason why spelunkers continue to explore cavern systems in search of bigger and more beautiful interior patterns.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Solution caves display a series of distinct stages of development.**

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Answer Choices

- |   |  |
|---|--|
| (A) As the flow of water becomes faster through pathways, they are further expanded.  | (D) The wearing away of the earth surface by liquid flow is the fundamental cause of cave formation.   |
| (B) Rainwater aids in cavern formation by compressing the underlying rock.  | (E) In order for the cave to become filled with air, underground currents have to dry up completely.   |
| (C) When acid substance in rainwater moving through cracks in limestone reacts with basic material, erosive action happens. | (F) When the water passages are closed, the growth of caves ceases, leaving the open but moist cavern. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.459

# CHAPTER 08 | Summary

## Overview

Summary 문제는 보기 중에서 지문의 주요한 내용을 언급하고 있는 것을 골라 지문 요약물 완성시키는 유형이다. 여기서 summary (요약)란 글의 중심 내용을 추려내어 간략히 표현하는 것을 말한다. 따라서 Summary 문제를 제대로 풀기 위해서는 글을 읽으면서 글의 주제를 파악하고, major idea와 minor idea를 구별하는 연습이 필요하다.

Summary 문제는 iBT에 새롭게 출제되는 문제 유형으로, 대개의 경우 각 지문의 마지막 문제로 Summary 문제가 출제된다. 간혹 Summary 문제가 출제되지 않는 지문에는 뒷장에서 다른 Category Chart 문제가 출제된다.

## Types of Questions

4지선다의 질문 형태와는 달리, directions와 introductory sentence가 주어지고 그 아래에 지문 요약물 위한 요약표와 6개의 보기가 제시된다. 6개의 보기 중, 요약물 완성시키기에 적절한 3개를 클릭하여 요약 표에 넣어야 한다. 2점 만점이며 부분 점수가 있다. (3개 - 2점, 2개 - 1점, 0~1개 - 0점)

Summary 문제의 전형적인 질문 유형은 아래와 같다.

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

### An introductory sentence

- 
- 
- 

Answer Choices

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

## 전략 1 Introductory sentence를 읽고 6개의 보기를 읽은 후, minor idea로 예상되는 것을 표시한다.

대개 introductory sentence는 완성될 요약의 topic sentence 역할을 한다. 따라서 introductory sentence를 토대로 보기를 읽으면 요약문에 들어가기에 minor한 내용의 보기를 대략 가려낼 수 있다. 이때 글의 주제(main idea)를 제대로 파악하고 있으면 지문의 major idea와 minor idea를 보다 정확히 구별할 수 있다.

Ex Plants are classified into three main groups on the basis of how photoperiodism affects their flowering. Short-day plants flower when the night length is equal to or greater than some critical length. This critical length varies considerably from one plant species to another but falls between 12 and 14 hours for many. The initiation of flowering in short-day plants is due not to the short period of daylight but to the long, uninterrupted period of darkness. Examples of short-day plants are ragweed, and poinsettia, whose flowers appear late summer or fall.

Plants which bloom when the night time is equal to or shorter than some critical length are called long-day plants. These plants can detect the shortening nights of late spring and early summer, and their flowers emerge at that time.

Some plants, called day-neutral plants, initiate flowering not in response to seasonal changes in the amounts of daylight and darkness but responding to some other type of stimulus, external or internal. Many of these plants originated in the tropics, where daylength does not vary appreciably during the year.

### Flowering in response to photoperiodism varies from plant to plant.

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#### Answer Choices

- |   |   |
|---|---|
| (A) Short-day plants bear flowers when the night length is equal to or exceeds critical length. | (D) Long-day plants have the ability to sense the shortening nights of spring and early summer. |
| (B) Critical length generally lasts between 12 and 14 hours.                                    | (E) Long-day plants blossom while the night length is less than or equal to critical length.    |
| (C) Ragweed and poinsettia fall under the category of short-day plants.                         | (F) Day-neutral plants develop flowers according to external or internal stimulus.              |

- ➔ Introductory sentence는 광주성에 반응하여 꽃을 피우는 것이 식물에 따라 다르다고 언급하고 있다. 보기 (B)는 광주성에 반응하여 꽃을 피우는 식물에 관한 내용이 아니라 critical length라는 개념의 지속 시간에 관해 말하고 있으므로 minor idea일 가능성이 높다. 보기 (C)는 short-day plants의 예를 들고 있으므로 minor idea일 가능성이 높다. 보기 (D)는 long-day plants가 밤이 짧아지는 것을 감지할 수 있다고 언급하는데 이는 꽃을 피우는 것의 직접적인 내용이 아니므로 minor idea일 가능성이 높다.



**전략 2** 보기와 Note-taking을 비교 확인하여 답을 선택한다.

지문을 읽으며 Note-taking해 놓은 내용을 보기와 비교하며 답을 고르되, 답으로 확실하지 않은 보기는 보기의 keyword가 지문의 어느 부분에 언급된 것인지 scanning을 통해 지문에서 다시 찾아 내용을 확인한 후 답을 선택한다.

Ex

Note-taking

•	P1-1. plants
	– 3 grps., based on how photoperiodism affects flowering
•	
	P1-2. short-day
•	– flower when night length $\geq$ critical length
•	P2. long-day
	– bloom when night time $\leq$ critical length
•	
	P3. day-neutral
	– X in response to daylight, darkness
•	– flower responding to other stimulus

Answer Choices

- |   |   |
|---|---|
| (A) Short-day plants bear flowers when the night length is equal to or exceeds critical length. | (D) Long-day plants have the ability to sense the shortening nights of spring and early summer. |
| (B) Critical length generally lasts between 12 and 14 hours.                                    | (E) Long-day plants blossom while the night length is less than or equal to critical length.    |
| (C) Ragweed and poinsettia fall under the category of short-day plants.                         | (F) Day-neutral plants develop flowers according to external or internal stimulus.              |

➔ 보기 (A)는 Note-taking의 P1-2와 일치하며 Note-taking을 통해 short-day plants가 1단락에 언급됨을 알 수 있다. 보기 (E)는 Note-taking의 P2와 일치하며 Note-taking을 통해 long-day plants가 2단락에 언급됨을 알 수 있다. 보기 (F)는 Note-taking의 P3과 일치하며 Note-taking을 통해 day-neutral plants가 3단락에 언급됨을 알 수 있다.

**전략 3** 보기 중 오답을 확인한다.

Minor idea를 나타내거나 지문에 전혀 언급되지 않은 보기는 오답으로 간주된다.

Ex Only through communication can one animal influence the behavior of another. Compared with the enormous communicative potential of human speech, however, nonhuman communication is severely restricted. Animals may communicate by sounds, scents, touch, and movement. For example, the song of a cricket announces to an unfertilized female the species of the sender (males of different species have different songs), his sex (only males sing), his location (source of the song), and social status (only a male able to defend the area around his burrow sings from one location). Indeed any sensory channel may be used, and in this sense animal communication has richness and variety.

**Animals affect each other by means of communication.**

Minor idea를 나타낸 오답

A male cricket sings to send information to a female cricket.

동물의 커뮤니케이션의 예를 들고 있는 문장으로 minor idea를 나타내므로 오답이다.

지문에 언급되지 않은 오답

Humans prefer to speak rather than act in order to communicate.

인간이 커뮤니케이션을 하기 위해 행동보다는 말하는 것을 선호한다는 내용은 지문에 전혀 언급되지 않았으므로 오답이다.

## Hackers Strategy Application

During the 1850s the issue of slavery caused divisions within the existing Whig and Democratic parties, bringing about the need for a third political party. Emerging in the face of political turmoil, this new party was formed to represent the interests of the North and abolitionists. A founder named Alvan Bovay decided to call the party "Republican" because it was a simple, yet historically significant name associated with equality.

The founders of the Republican Party were committed to the rights of individual states and a limited role for national government. The first stirrings of a Republican Party began in February of 1854, when defectors from the Whig party gathered secretly to discuss the creation of a new party. Anti-slavery forces then rallied together and adopted resolutions opposing the controversial Kansas-Nebraska Act, which allowed territories to determine whether slavery would be legalized by popular sovereignty, at the first public meeting in Wisconsin. In a second meeting, a small group of local citizens dissolved their political committees and chose five men to serve as the committee of the new party.

As word spread, the party formally organized itself by holding its first convention, adopting a national platform, and nominating candidates for state offices. Tensions mounted over the issue of slavery as a concerted effort was made to counter the Democrats' plan to extend slavery to new territories joining the Union. The number of anti-slavery Republicans who ran and were elected for office increased, further galvanizing the two sides. At the national convention of 1856 in Philadelphia, the party nominated John C. Fremont as president and "Free Soil, Free Labor, Free Speech, Free Men, Fremont!" became the slogan of the Republican Party. Although losing to the Democrats, Fremont managed to capture a third of the vote despite running as a third-party, boosting optimism for the 1860 elections.

Abraham Lincoln, a respected state politician from Illinois, became the first Republican to win the White House in 1860. Lincoln defeated three other candidates despite not winning a single electoral vote from any Southern states. The election of Lincoln ended sixty years of political dominance by the Democrats and barely a month following his victory, Southern states began to secede from the Union. The Civil War erupted soon thereafter and Lincoln was challenged with preserving the Union. Amid the Civil War, against the advice of his cabinet, Lincoln signed the Emancipation Proclamation that freed the slaves. He, along with the Republican Congress, worked to pass the Thirteenth and Fourteenth amendments, which outlawed slavery and guaranteed equal protection under the law. During the Reconstruction Era, Republicans were helped by the Democrats' connection with the South and ran virtually unopposed for several years.

**The Republican Party evolved in the mid-nineteenth century from the existing political parties.**

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### Answer Choices

- |  |  |
|--|--|
| (A) Republicans were instrumental in elevating the women's status in the society.  | (D) Lincoln went to great length to avoid the Civil War and keep his vested interest.                    |
| (B) Republicans and Democrats were at odds over the issue of slavery in new territories.   | (E) Whig party defectors alienated themselves from their party by holding secret meetings.               |
| (C) After a previous defeat, the party was successful when Abraham Lincoln was elected to be the first Republican president in office. | (F) The Republican Party was committed to states' rights and united in preventing the spread of slavery. |

**전략 1 적용** Introductory sentence는 19세기 중반에 기존의 정당에서 벗어나 Republican Party가 등장했다고 언급하고 있다. 보기 (E)는 Whig party에 관한 내용을 담고 있으므로 minor idea일 가능성이 높다.

**전략 2 적용**

### Note-taking

•	P1. new party formed
	– Republican
	– interests of North & abolitionists
•	P2. Republican party
	– rights of individual states
	– limited role for national gov't
	– anti-slavery forces
•	P3. party formally organized
	– national platform
	– tensions over slavery issue w/ Democrats
•	P4. Abraham Lincoln
	– 1 <sup>st</sup> Republican president
	– civil war
•	– outlawed slavery

보기 (B)는 Note-taking의 P3과 일치, 보기 (C)는 Note-taking의 P4와 일치, 보기 (F)는 Note-taking의 P2와 일치한다.

**전략 3 적용** (A) 여성의 지위에 관해서는 지문에 전혀 언급되지 않았으므로 오답이다.  
(D) 링컨 대통령이 남북전쟁을 막고 기득권을 지키기 위해 노력한 내용은 지문에 언급되지 않았으므로 오답이다.  
(E) Whig 당 탈당자들이 비밀 회합을 열었다는 것은 minor idea를 나타내므로 오답이다.

**정답** (B), (C), (F)

# HACKERS PRACTICE

- Read each passage and choose the main idea for each.

- Chinese calligraphy or brush calligraphy is an art unique to Asian cultures. Regarded as the most abstract and sublime form of art in Chinese culture, it is often thought to be most revealing of one's personality. During the imperial era, calligraphy was used as an important criterion for selection of executives to the imperial court. Unlike other brush art techniques, all calligraphy strokes are permanent and exact, demanding careful planning and confident execution. Such skills were thought to be necessary for a court administrator or executive. While one has to conform to the defined structure of words, the expression can be extremely creative. To exercise humanistic imagination and touch under the faceless laws and regulations was also a virtue well appreciated.  
(A) Although there were strict rules, calligraphy still allows people to express their creativity.  
(B) The skills that a calligrapher needs were often thought to be the same as those for a manager.  
(C) The ideal form of Chinese art, calligraphy, is believed to disclose much about one's temperament.  
(D) Asian cultures have art that is regulated by court administrators or executives.
- Several types of stellar explosions, or supernovae, produce extremely bright objects made of plasma that decline to invisibility over weeks or months. There are two possible routes to this end. A massive star may cease to generate fusion energy in its core and collapse inward under the force of its own gravity; alternatively, a white dwarf star may accumulate material from a companion star until it reaches its maximum mass and undergoes a thermonuclear explosion. In either case, the resulting supernova explosion expels much or all of the stellar material outward with incredible force. The explosion drives a blast wave into surrounding space, forming a supernova remnant. Supernova explosions are the main source of all the elements heavier than oxygen, and they are the only source of many important elements. For example, all the calcium in our bones and all the iron in our hemoglobin were synthesized in a supernova explosion billions of years ago. Supernovae inject these heavy elements into the interstellar medium, thus enriching the molecular clouds that are the sites of stellar formation. This enrichment process is what determined the composition of the Solar System 4.5 billion years ago, and ultimately made possible the chemistry of life on Earth as per the "Big Bang" theory. It is misleading to consider a supernova a new star because it really represents the death of a star, or at least its radical transformation into something else.  
(A) Various kinds of supernovae spew out stellar matter used to make new stars.  
(B) The common misconception about a supernova is that it is the creation of a new star.  
(C) Human calcium and iron were produced when a star exploded and ejected matter.  
(D) There are two ways in which a star will go through an explosive reaction.

**Vocabulary** The word      in the passage is closest in meaning to

- |          |           |              |           |              |
|----------|-----------|--------------|-----------|--------------|
| 1 virtue | (A) verse | (B) statue   | (C) zone  | (D) merit    |
| 2 expels | (A) chops | (B) explores | (C) spews | (D) flusters |



3. Appearing in Pittsburgh in 1905 for the first time, nickelodeons were small, neighborhood movie theaters in which admission was obtained for a nickel, or five cents. Often located in converted storefronts of all kinds, the popularity of these affordable and entertaining venues was such that their numbers mushroomed to approximately 8,000 by 1908. Sparsely decorated, smoke-filled, dingy and dark, they would show 'moving pictures' about 15 to 20 minutes long on a variety of subjects. They admitted nearly 200 people, all of whom sat on simple chairs and who could easily hear the accompanying music played on piano by a local girl, who would attempt to match the music to the tone of the particular scene. As urban populations grew, the number of nickelodeons declined by degrees because audiences increasingly preferred the comfortable and well-appointed surroundings of larger theaters with their first-run movies, better-quality musical accompaniments and well-dressed ushers.
- (A) Nickelodeons could accommodate up to 200 people and had live music for the films.  
 (B) The name nickelodeon came from the cost of admission which was one nickel.  
 (C) Nickelodeons were famous for showing movies on a diversity of genres.  
 (D) Nickelodeons while popular at first eventually were supplanted by larger theaters.
4. The rapid territorial expansion of the United States in the 1800s encouraged a liberal land-grant policy that culminated in the Homestead Act of 1862. There were several requirements to fulfill for claiming the land. First, a would-be homesteader who was 21 years of age and the head of a household had to file an intention for claiming a public tract of land at the nearest Land Office. The office would then examine public records to verify that it did not have a previous claim. Second, the applicant would need to make a series of improvements to the land, such as building a dwelling on the property and cultivating the soil. After a five-year period of continual residence, it could be claimed without a fee. The act produced a new agricultural base for the new nation that today still largely supports the country's food supplies. Moreover, homesteading allowed over a million landless farmers and immigrants to attain property and the means of independent sustenance, thereby creating the basis of an unprecedented new middle class hitherto unseen in Western society. Before the act was fully repealed in 1986, over 270 million acres, or about 10% of all US lands, had been conferred to private individuals by the federal government. Clearly, this act played a substantial role in the shaping of the American landscape.
- (A) The Homestead Act after it permitted many people to own land had a dramatic effect on America.  
 (B) In order to qualify for the Homestead Act, a person had to meet some requirements.  
 (C) The number of farms developed with the Homestead Act led to the increase in the agricultural base.  
 (D) The Homestead Act was created because America had acquired so much land.

**Vocabulary** The word        in the passage is closest in meaning to

- |   |            |              |              |                |                |
|---|------------|--------------|--------------|----------------|----------------|
| 3 | affordable | (A) modest   | (B) exacting | (C) formidable | (D) accustomed |
| 4 | property   | (A) vessel   | (B) mutiny   | (C) holding    | (D) allusion   |
|   | repealed   | (A) repulsed | (B) annexed  | (C) rejoiced   | (D) nullified  |



- Read each passage and then mark (+) for major points and (-) for minor points.

5. The European colonization of America forever changed the lives and cultures of the Native Americans. The huge number of European settlers brought not only some helpful tools to the New World, but also carried new germs.

In the 15<sup>th</sup> century, Spaniards and other Europeans brought horses to America. Some of these animals escaped and began to breed and increase their numbers in the wild. Ironically, the horse had originally evolved in America, but the last American horses were game for early hunters and went extinct about 9,000 years ago, just after the end of the last ice age. The re-introduction of the horse had a profound impact on Native American culture in the Great Plains of North America. This new mode of travel made it possible for some tribes to greatly expand their territories, exchange goods with neighboring tribes, and more easily capture game.

Europeans also brought diseases against which the Native Americans had no immunity. Chicken pox and measles, though common and rarely fatal among Europeans, often proved lethal to Native Americans, and more dangerous diseases such as smallpox were especially deadly. It is difficult to estimate the total percentage of the Native American population killed by these diseases. Epidemics often immediately followed European exploration, sometimes destroying entire villages. Some historians believe that up to 80% of some Native populations may have died due to European diseases.

**Topic sentence:** The European's settlement of the New World greatly affected the indigenous population.

- \_\_\_\_\_ (A) The introduction of horses helped the Native Americans to expand their lands and trade goods.
- \_\_\_\_\_ (B) Chicken pox and measles were common diseases to Europeans.
- \_\_\_\_\_ (C) Up to four-fifths of some Native populations died as a result of European diseases.
- \_\_\_\_\_ (D) Horses were native to America but had died out prior to their re-introduction by the European settlers.

**Vocabulary** The word  in the passage is closest in meaning to

- |   |          |            |              |               |            |
|---|----------|------------|--------------|---------------|------------|
| 5 | breed    | (A) negate | (B) multiply | (C) corrode   | (D) weaken |
|   | exchange | (A) swipe  | (B) dispatch | (C) elucidate | (D) swap   |
|   | entire   | (A) flimsy | (B) eerie    | (C) whole     | (D) lame   |

6. Phosphorus exists in several chemical forms, all with widely varying properties and applications. In its purest state, it is white, transparent, and insoluble in water. Because it combusts spontaneously when in contact with air, it is normally kept underwater and handled with tools, as contact with skin can cause severe burns. It is also poisonous if ingested, 50 mg constituting a fatal dose.

When white phosphorus is exposed to sunlight or heated to its own vapor to 250 degrees Celsius, it is converted to the red variety, which is not as volatile. This form does not ignite spontaneously and is not as dangerous as white phosphorus. It should, however, be managed with care as it does convert to the white form at some temperatures and it emits highly toxic fumes of the oxides of phosphorus when heated. The red modification is fairly stable and is used in the manufacture of safety matches, pyrotechnics, pesticides, and bullets.

Phosphorus found naturally is usually in the form of phosphate salts. These take the appearance of normal rock and are odorless and tasteless. They were first used as fertilizers by grinding the rocks into powders and sprinkling them onto the farmland. Phosphate salts are also used in the production of synthetic detergents (sodium polyphosphate) and in toothpaste (calcium phosphate).

**Topic sentence:** The forms of phosphorus are numerous and diverse.

- \_\_\_\_\_ (A) White phosphorus is unadulterated and lucid, and is stored in water.  
\_\_\_\_\_ (B) Safety matches and pesticides are made from red phosphorus.  
\_\_\_\_\_ (C) With exposure to either sunlight or heat, white phosphorus is changed into a more stable red form.  
\_\_\_\_\_ (D) People make good use of phosphate salts in manufacturing synthetic detergent.

**Vocabulary** The word  in the passage is closest in meaning to

- |              |                |                  |                 |                   |
|--------------|----------------|------------------|-----------------|-------------------|
| 6 state      | (A) sanitation | (B) condition    | (C) scope       | (D) tumult        |
| poisonous    | (A) languid    | (B) prodigious   | (C) monotonous  | (D) toxic         |
| modification | (A) variation  | (B) ratification | (C) convocation | (D) signification |

7. GPS or the Global Positioning System is an intricate navigation system used for determining one's precise location and providing a highly accurate time reference almost anywhere on Earth or in Earth orbit. Designed and controlled by the United States Department of Defense, it was originally **intended** for military applications, but today it is commonly used in a wide variety of civilian functions such as automobile navigation systems.

It is divided into three segments: space, control, and user. The space segment comprises the network of GPS satellites, which circle the earth twice a day in a very precise orbit and transmit signal information to Earth. Powered by solar energy, they are equipped with backup batteries to keep them running in the event of a solar eclipse during which they may be **temporarily** deprived of power. Small rocket boosters on each satellite keep them flying in the correct path. The control segment consists of ground stations around the world that are responsible for monitoring the flight paths of the GPS satellites, synchronizing the satellites' onboard atomic clocks and collecting and uploading data for transmission by the satellites. The user segment is comprised of GPS receivers, which are devices that can determine a user's exact location by using distance measurements from enough satellites. A GPS receiver must be locked on to the signal of at least three satellites to calculate a two-dimensional position – showing latitude and longitude – and to **track** movement. With four or more satellites in view, the receiver can determine a user's three-dimensional position – latitude, longitude, and altitude. Once the user's position has been determined, a GPS unit can calculate other information, such as speed, bearing, and trip distance.

**Topic sentence:** The Global Positioning System is comprised of three parts which function together to give users precise information on location and time.

- \_\_\_\_\_ (A) GPS satellites will continue to operate, powered by backup batteries in the absence of solar energy.
- \_\_\_\_\_ (B) A person can find his exact location in three dimensions by using more than four satellites in combination.
- \_\_\_\_\_ (C) The GPS satellite network is controlled by a series of interconnected ground stations located worldwide.
- \_\_\_\_\_ (D) While GPS was developed for military uses at the outset, it is now also used for automobile navigation systems.

**Vocabulary** The word **intended** in the passage is closest in meaning to

- |             |                |                  |                   |               |
|-------------|----------------|------------------|-------------------|---------------|
| 7 intended  | (A) designed   | (B) pasted       | (C) intruded      | (D) justified |
| temporarily | (A) ultimately | (B) transitorily | (C) magnificently | (D) initially |
| track       | (A) trim       | (B) traverse     | (C) chase         | (D) intercept |



8. To humans, a zebra's stripes stick out like a sore thumb, so it's hard to imagine that the stripes act as camouflage. Zoologists believe stripes offer zebras protection from predators in a couple of different ways.

The most obvious is simple-patterned camouflage, much like the type the military uses in its fatigue design. The wavy lines of a zebra blend in with the wavy lines of the tall grass around it. It doesn't matter that the zebra's stripes are black and white and the lines of the grass are yellow, brown, or green because the zebra's main predator, the lion, is colorblind. The pattern of the camouflage is more important than its color, when hiding from the predators. If a zebra is standing still in matching surroundings, a lion may **overlook** it completely.

This **benefit** may help an individual zebra in some situations, but the more significant means of protection has to do with zebra herds. Zebras usually travel in large groups, in which they stay very close to one another. Even with their camouflage pattern, it's highly unlikely that a large gathering of zebras would be able to escape a lion's notice, but their stripes help them use this large size to their advantage. When all the zebras keep together as a big group, the pattern of each zebra's stripes blends in with the stripes of the zebras around it. This is **confusing** to the lion, which sees a large, moving, striped mass instead of many individual zebras. The lion has trouble picking out any one zebra, so it doesn't have a very good plan of attack. It's hard for the lion to even recognize which way each zebra is moving. The lion's inability to distinguish zebras also makes it more difficult for it to target and track weaker zebras in the herd.

**Topic sentence:** A zebra's stripes aid it in many ways from becoming prey.

- \_\_\_\_\_ (A) The stripes intermix with the foliage, keeping the zebra hidden.  
\_\_\_\_\_ (B) The lion which is the predator of the zebra can't distinguish colors.  
\_\_\_\_\_ (C) The stripes confer great protection to the zebra when it is in a group.  
\_\_\_\_\_ (D) A large group of zebras can be easily noticed to move by the lion.

**Vocabulary** The word  in the passage is closest in meaning to

- |   |           |                |               |                |               |
|---|-----------|----------------|---------------|----------------|---------------|
| 8 | overlook  | (A) glimpse    | (B) abridge   | (C) overshadow | (D) neglect   |
|   | benefit   | (A) smattering | (B) cache     | (C) advantage  | (D) deterrent |
|   | confusing | (A) baffling   | (B) confiding | (C) abstract   | (D) objective |

- Read each passage and answer the corresponding question for each.

9. It was around the late 1930s and early 1940s that the electronic television truly came to be a part of the American public's daily life. By 1950, almost everyone owned a television set and already the dynamics of American culture had changed drastically. People were spending less time exercising, reading books, etc., and more time in their living rooms. In fact, between 1950 and 1955, the average amount of time spent viewing television went up 1,440%. Not only did this phenomenon affect social routine, but it also had a huge effect on other public media such as radio, newspaper, and, most of all, film. National cinema was the industry influenced most by the popularity of the home-based entertainment provided by television.

The convenience of TV created obvious competition for movie studios that relied on the public's desire to get away from their homes for entertainment. However, the television offered all of the viewing pleasure available in a theater without the hassles of purchasing tickets, getting to the movie, and having to travel home afterwards. Very simply, people wanted less and less to go outside of home. Thus, the 1950s witnessed a near 'death' for the film industry as a result of the impact of TV on American entertainment culture.

Film studios nationwide were quick to come up with measures to counteract, although relatively futilely, the industry's decreasing popularity. Since televisions were still in black and white, film producers immediately focused on color films, and even attempted cinematic techniques such as Cinemascope, Technicolor, and 3D films. Other attempts included the widening of cinema screens, the introduction of reclining seats, and free snacks. While such lures drew in the crowds initially, viewers soon lost interest and returned to the ever evolving world of television entertainment.

Consequently, the film industry reacted with another try at drawing audiences by offering films of a more adult content. Violence, vulgar language, and especially sexual content became part of mainstream film. This was a great advantage for film, as television couldn't (at that time) allow such productions for the sake of the plethora of children viewers. At this point, cinematic popularity slowly began to grow again, although it never reached the pre-television per capita ratings that it once enjoyed. Unfortunately, television eventually caught up and began to produce adult-oriented shows and late night specials, so the theater audiences once again dwindled. Despite all of the attempts to reignite film's popularity, movie theaters even still today struggle to maintain their place in American entertainment culture.

**Vocabulary**

The word  in the passage is closest in meaning to

- |   |          |                  |                    |                    |                  |
|---|----------|------------------|--------------------|--------------------|------------------|
| 9 | hassles  | (A) affectations | (B) collaborations | (C) bothers        | (D) concords     |
|   | measures | (A) derelictions | (B) interventions  | (C) misconceptions | (D) counterplans |
|   | dwindled | (A) decreased    | (B) surged         | (C) retrospected   | (D) incinerated  |

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The advent of television had a widespread impact on the more traditional form of public amusement, film.**

- 
- 
- 

Answer Choices

- |   |   |
|---|---|
| (A) Most people preferred the comfort of remaining in their homes watching television to the inconvenience of going to the theater. | (D) Children viewers were not permitted to watch adult-oriented shows on television.                  |
| (B) Almost all of the movies shown in theaters were also shown on television.   | (E) Film industry leaders offered fresh inventions to recover its popularity over television.         |
| (C) When television came out, it caused people to invest less time in exercising and reading.                                       | (F) Gearing movies to audiences of higher ages had only brief influence on enthusiasm for the cinema. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.



10. Plants, like any species, are susceptible to predation that threatens their survival. Constant attacks by herbivores are a continuous threat that has prompted the development of self-defense mechanisms in plants. The study of plant defense is ridden with a number of theories dating back to the 1950s that attempt to explain why and how these defense mechanisms developed, but as of yet there are no conclusive results. What scientists do know is that types of protective measures are evolving and that plants and herbivores are locked in an arms race of sorts regarding the growth of chemical defense techniques. As fast as plants can put up protective barriers, the herbivorous predators (most notably insects) counteract them with their own adaptations that allow them to gain access to the plants.

Each plant utilizes different methods, or a combination thereof, to react to the approach or attack of its enemies. The quaking aspen, *Populus Tremuloides*, grows laterally compressed petioles that cause the leaves to vibrate with any kind of breeze. The vibration makes it difficult for insects to stay on the leaf surfaces. A number of plants develop dense mats of trichomes that abscise when the leaf expands fully, acting as a physical barrier to all kinds of insects. Both of these defenses attempt to keep away potential threats, but there are some protective measures that counterattack the invader already present. An example of this is the *Populus Deltoides* that secretes a resin through its stipular bud scales once an insect has attached itself to its stem. The resin contains a toxin that is poisonous to most enemies. In another way, the *Populus Grandidentata* has a defense in which it produces extraneous floral nectaries to ensure that the predators do not take all of its nutrient supplies.

More recent studies show that a plant's initial response to an attack by a pathogen is the most critical for the plant's survival. It is this response that triggers the defense mechanism, yet the pathway by which it occurs is still unknown. Recent work with cultured plants cells in suspension has revealed that exposure to a pathogen results in changes in the levels of cytosolic calcium concentration, the production of reactive oxygen species, the activation of protein kinases, and the release of the novel lipid second messenger phosphatidic acid. All of these reactions occur within 1-4 minutes after the plant's recognition of a foreign invader, signaling the defenses almost immediately and ensuring the plant's survival.

**Vocabulary** The word        in the passage is closest in meaning to

- |              |              |               |                |                |
|--------------|--------------|---------------|----------------|----------------|
| 10 threatens | (A) swells   | (B) endangers | (C) aggravates | (D) terminates |
| vibrate      | (A) trespass | (B) toil      | (C) swing      | (D) linger     |
| present      | (A) existing | (B) casual    | (C) steadfast  | (D) sterile    |

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**As a response to danger, plants utilize systems of protection that fend off destructive aggressors.**

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- 
- 

Answer Choices

- |   |  |
|---|--|
| (A) The manner by which plants shield themselves against invaders is constantly evolving.                 | (D) Plenty of plants have layers of sharp edges that pop out when attackers come near.   |
| (B) Some predators take nutritive elements from floral nectaries of plants.                               | (E) Researchers have found a way to isolate the toxic substance released by plants.  |
| (C) It is vital for a plant to instantaneously respond to any sign of bacterial or viral causative agent. | (F) A plant's response to threats can vary widely, from keeping away hidden enemies to retaliating against existing predators. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

11. At the beginning of the European Middle Ages, books did not exist, or at least not in the form and quantity prevalent in modern times. The majority of the population was illiterate and cultural stories, mostly related to heroic **deeds** or monstrosities, were passed on orally by storytellers, minstrels, and poets. However, throughout the course of that historical period, the printed book came into being and marked a turning point in European social history. The way of preserving cultural myths, stories, and historical narrations had evolved into an almost entirely written form.

The traditional way of preparing a book consisted of an arduous process that took years to complete. The first step was to cure the animal hides for pages, then make and mix the pigments for the ink, followed by the readying of quills, and finally rule each page for the actual writing. Once this entire **preparatory** stage was complete, every word of the book had to be written in long-hand by a scribe before the book could be illuminated with leafs of gold, silver, and copper. Thus, the labor intensiveness and high cost of producing only one copy of a book meant that very few were made and that only the elite would possess one.

Without a doubt, it was the Catholic Church that maintained control over and ensured the preservation of most books during the Middle Ages. The church at that time was the center of society, above even nobility, and was therefore in the position to elevate literature to the status of an act of God. Monks were assigned the task of copying texts and all religious servants were expected to be literate and skilled in the crafts of scribing or illustrating. By the 14<sup>th</sup> century, monasteries were set aside solely for the purpose of such tasks, as demand for copies, especially of the bible, grew rapidly. Interestingly, those monasteries kept libraries full of not only sacred texts, but also many of the literary, scientific, and philosophical works of the Greeks and Romans that otherwise might not have been preserved well enough to be read today.

In 1445, a man by the name of Johann Gutenberg forever changed the lives of people in Europe, and eventually throughout the world, with his invention of the printing press. Gutenberg's press could produce books quickly and at little cost in both materials and labor. This resulted in two major effects for European society at that time: less domination by the papal authorities and the **dissemination** of books to the general public. Not only could works be printed outside of the monasteries, but also were so widely available at such low prices that even the common man could purchase a copy of the bible or a literary piece.

**Vocabulary** The word **dissemination** in the passage is closest in meaning to

- |               |                 |                |                 |                |
|---------------|-----------------|----------------|-----------------|----------------|
| 11 deeds      | (A) fallacies   | (B) components | (C) oaths       | (D) exploits   |
| preparatory   | (A) presumable  | (B) stopgap    | (C) preliminary | (D) rebellious |
| dissemination | (A) propagation | (B) abrogation | (C) disposal    | (D) reputation |



Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**During the Middle Ages, the development and spread of books affected the growth of European society.**

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- 
- 

Answer Choices

- |  |   |
|--|---|
| (A) Most people in Medieval society were devout followers of the Catholic Church.  | (D) Books made by hand required extensive amounts of effort and time and were not for general use.      |
| (B) Some of the important literary works from ancient western civilizations have been lost because of poor printing practices. | (E) The spread of books into popular culture resulted from the ability to mass-produce copies of texts. |
| (C) Written texts in the Middle Ages were governed and created by the ruling religious authorities.                            | (F) Public libraries were established by the church for people who wanted to learn to read and write.   |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

12. The often misleading name Tin Pan Alley refers to the assemblage of music publishers and songwriters who congregated in New York City during the late 19<sup>th</sup> and early 20<sup>th</sup> century, leading the popular music scene. Originally there was a specific place, West 28<sup>th</sup> Street between Broadway and Sixth Avenue of Manhattan, where these music industry leaders dwelled, which is how it became referred to as an 'alley.' It was along that street that a number of pianists played popular songs to draw in clientele, resulting in a noise similar to that of someone banging on tin pans. Thus, the cluster of shops in that area became known throughout the world as Tin Pan Alley.

The beginning of Tin Pan Alley is typically designated to be around 1885, at the time that a large number of music publishers moved into the same area. The shops on Tin Pan Alley originally arose because of the competitiveness amongst publishers that printed numerous versions of any popular songs to be sold as sheet music. Owing to extremely weak copyright control on melodies, no single publisher could keep up with the trends. For these reasons, a group of publishing shops teamed up together to form the Tin Pan Alley as a way to draw business from individual sellers in the rest of the city.

Even though those small shops became the largest music houses in the nation, they went out of business following a dynamic change in the 20<sup>th</sup> century. There are debates over exactly when and how the congregation ended. Some believe that the introduction of the radio and phonograph during the Great Depression of the 1930s, which in turn replaced sheet music, caused a lack of need for the assemblage of the shops. Others argue that it wasn't until the emergence of rock & roll in the 1950s that the alley finally dissipated. Regardless of when, it is certain that it died out due to a significant shift in trends in the music industry, which introduced mass media and classifications of music that had no use for being sold to stage acts or lobby entertainers.

Despite the closing of the local shops, the music industry was forever marked by the widespread influence that Tin Pan Alley had on popular music. It wasn't only large performers that used the publishing houses, but also amateur singers and song pluggers. In order to sell to the latter group, music houses had to change the more popular tunes into music readable and playable to those less professional and less skilled musicians. The variations of music that arose from this situation prompted a creative explosion that had never before been seen in American popular music.

**Vocabulary** The word  in the passage is closest in meaning to

- |                |               |                |             |                 |
|----------------|---------------|----------------|-------------|-----------------|
| 12 congregated | (A) retracted | (B) swarmed    | (C) slipped | (D) synthesized |
| clientele      | (A) loafer    | (B) enterprise | (C) faculty | (D) patron      |
| numerous       | (A) tricky    | (B) countless  | (C) trivial | (D) dogmatic    |

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**A collection of small and private music shops accumulated fame and industrial dominance by pooling together their resources into one urban region.**

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- 
- 

Answer Choices

- |  |   |
|--|---|
| (A) Sounds produced by the musicians in the street gave rise to the nickname of Tin Pan Alley.         | (D) The formation of such a district was motivated by the unrestricted system of score publishing at the time.        |
| (B) A crisis in the success of Tin Pan Alley was the shift to more publicly accessible forms of media. | (E) Since not everyone could read standard sheet music, alternate versions that were devised increased inventiveness. |
| (C) The emergence of a less theatrical style of music caused people to turn away from Tin Pan Alley.   | (F) Almost all of the customers of Tin Pan Alley were directors and producers of large theatrical performances.       |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.460



## [1] The Potlatch

- 1 ➡ The potlatch was a ceremonial distribution of property practiced by the indigenous communities of the Pacific Northwest in the United States and in the province of British Columbia in Canada. This custom, usually held in longhouses or large outdoor areas, served as markers for certain social events such as the birth of a new child, the marriage of a young couple, or a successful hunting season. It could be used to commemorate the transfer of ownership or serve as a record of payment in lieu of written records in addition to providing a public display of military alliances or familial bonds. The primary purpose of the potlatch, however, was to provide a means to re-distribute wealth among the tribe in an equitable and ethical manner, allowing the host to rid himself of the spiritual burden that he felt as the sole owner of material items in an essentially communal environment.
- 2 The potlatch consisted of three main activities, all of which are inherently tied to its comprehensive definition. The first is feasting, usually on salmon or seal meat, among numerous other foods, reflecting the tradition of sharing seasonal bounty of fish, a successful whale hunt or other surplus of food with neighboring groups. Honored guests, for example, tribal elders, those who had traveled long distances to attend, or traditional healers, were seated and served with great formality, receiving the most elaborate dishes in the largest amounts. The generosity of the host was implicit in the extravagance of the meal, served not in simple daily-use vessels but in ornate hand-carved or painted feasting platters, often of heirloom quality and sometimes as large as a small canoe.
- 3 ➡ Another aspect of the potlatch is dancing, usually accompanied by singing, and performed for a variety of devotional reasons such as praying for a robust harvest, honoring deceased relatives, or the celebration of special kinship associations. Since each family practiced a unique form of folk dancing, the gathering offered an unparalleled opportunity for the host to show his heritage to others, including members of outlying tribes. Should invited guests wish to present their own elaborate productions, they must first seek permission or be honored with a specific bidding. Throughout the event, some participants wore masks that depicted the supernatural being who had bequeathed the family, or one of their ancestors, with the knowledge of movement and music. For costumes, button blankets were also often worn and later given as gifts to thank the guests for coming and to ask them to remember the dances for the next potlatch.
- 4 ➡ The practice of gift-giving is the third and most critical factor that identifies the potlatch, although its implied generosity is not the main reason why this occurs. Not only was this an occasion to repay debts, acknowledge services rendered by neighbors, and ensure the continuance of established relationships, but also a time to purge material possessions and reassert communal values. ■ Canoes, eulachon oil, goat hair blankets, or even songs, names, and crests, were offered, diminishing the family's supplies almost to the point of bankruptcy. ■ Sometimes, if property was anchored or too cumbersome to move to the site

of the potlatch, it was simply destroyed so as to comply with the general philosophy of spiritual deliverance and cathartic revelation. ■ Once the portions were accepted, they were ordinarily painted or engraved to commemorate the passing of the potlatch. ■

- 5 In an effort to assimilate these indigenous populations into Western culture, where community practices that involve purging oneself of material goods are considered contrary to the underlying work ethic, both the United States and Canadian governments banned the potlatch practice in 1884. They believed it to be an irrational destruction of property, one that had grown rampant in the coastal communities now exposed to more goods. As a result, the practitioners went underground to avoid persecution, holding ceremonies in secret, until the law was lifted in 1951. In modern times, the custom has been modified to include a myriad of cultural events such as graduations, baby showers, and anniversaries. Although the level of formality has been dropped, the continuance of the custom ensures that the traditions are remembered and carry on into each passing generation.

1. According to paragraph 1, which of the following is NOT mentioned as a purpose for having a potlatch?
- (A) It honored relationships between different social units.
  - (B) It was held to celebrate major events in people's lives.
  - (C) It made it mandatory for the wealthy to distribute their valuables.
  - (D) It served as public notice of a change in proprietorship.

Paragraph 1 is marked with an arrow [➡].

2. The word equitable in the passage is closest in meaning to
- (A) ambling
  - (B) unbiased
  - (C) astute
  - (D) erudite
3. Which of the following can be inferred about the society having the potlatch?
- (A) Primogeniture was a very common practice.
  - (B) It had a rigidly hierarchical structure.
  - (C) It was dependent on the ocean for sustenance.
  - (D) The gap between the rich and the poor was great.

4. The word *implicit* in the passage is closest in meaning to
- (A) latent
  - (B) archaic
  - (C) vain
  - (D) showy
5. According to paragraph 3, which of the following is true of the dancing practice?
- (A) Each family possessed a distinctive dance style.
  - (B) Guests often presented the dancers with commemorative gifts.
  - (C) Each guest was required to perform a dance in honor of an ancestor.
  - (D) Whoever received the host's dancing garment would hold the next potlatch.

Paragraph 3 is marked with an arrow [➡].

6. The word *their* in the passage refers to
- (A) members
  - (B) tribes
  - (C) guests
  - (D) productions
7. In paragraph 4, why does the author mention even songs, names, and crests?
- (A) To show that even destitute families were able to provide gifts at a potlatch.
  - (B) To emphasize the spiritual element of the potlatch ceremony.
  - (C) To demonstrate the significance of these concepts to a family's finances.
  - (D) To provide examples of nonmaterial possession for the excessive potlatch.

Paragraph 4 is marked with an arrow [➡].

8. According to paragraph 4, what was done with items that were broken?
- (A) They were returned to be exchanged for another item.
  - (B) Fragments were preserved as reminders of the event.
  - (C) Repairs were done on objects for the next practice.
  - (D) They were reused for practical purposes in their daily lives.

Paragraph 4 is marked with an arrow [➡].

9. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Copper was one such item that was frequently brought as broken pieces, thus lowering its monetary value, but heightening its cultural significance.**

Where would the sentence best fit?



Click on a square [■] to add the sentence to the passage.



10. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The governments of both Canada and the US banned potlatches in order to destroy the indigenous populations completely.
  - (B) Potlatches were outlawed in the 19<sup>th</sup> century by America and Canada in order to make the indigenous communities integrate into mainstream societies.
  - (C) Both the US and Canada made an effort to discourage potlatches since they were deemed as a wasteful and irrational destruction of goods.
  - (D) The decision of Canada and America to restrict potlatches was part of an attempt to incorporate the indigenous peoples into capitalist society.
11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The potlatch which serves various purposes consists of a diversity of activities.**

Answer Choices

- |  |   |
|--|---|
| (A) The surplus of seasonal foods was shared during a banquet.         | (D) Despite the inhibition of the practice, it continued to carry on in secret.                 |
| (B) Formal dining ware was used to show the bounteousness of the host. | (E) Ancestral dances were performed by the host as well as the guests.                          |
| (C) Material items were offered to guests for a variety of reasons.    | (F) Non-tribal members were invited to the potlatch, although they did not usually participate. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.467

## [2] Heat Islands

- 1 In 1880, the city of Los Angeles was a desolate chunk of land on the western coast of the United States. As pioneers migrated westward, they settled in the area, built widespread irrigation, planted orchards, and became some of the wealthiest farmers in the country. Over time, however, the cool fruit trees were overcome by hot pavement and tall buildings, and this massive urbanization has had a profound impact on the normal downtown temperature, often 10 degrees higher than in the suburbs and continuing to increase by about one degree every decade. Isothermic maps of a region, which show the geographic distribution of the monthly or annual average temperature values, indicate a heat spike in the location of the city that is likened to the contours of an island, and for this reason the phenomenon is called an Urban Heat Island, or UHI.
- 2 It often develops in tandem with metropolitan progress and appears in other major population centers. Scientists are becoming more convinced that Urban Heat Islands contribute to the slow rise in the earth's surface temperature. One way they do this is by increasing the demand for refrigeration and air conditioning in warmer climates. This, in turn, leads to higher energy consumption and puts strain on local power plants that produce heat-trapping greenhouse gases. In addition, higher average temperatures can cause a startling change in wind patterns, rainfall, and the amount of artificial ozone-producing smog in affected areas, leading to detrimental climate changes for outlying agricultural regions.
- 3 ➡ Facing such urgent environmental concerns, geologists have now delved into finding ways to combat these phenomena by looking at their root causes. Tall buildings and urban structures, a city's geometrics, greatly influence the city temperature by providing surface areas that display a greater ability to trap and retain heat than their natural surroundings. Albedo, the fraction of reflected light, is diminished by the implementation of darker building material, such as asphalt and black rooftops, which due to its color, absorbs the majority of the radial spectrum and does not reflect much radiation back into the environment. This causes warmth to linger even after sunset and provides no way for the city to cool itself down. Mediterranean cultures have attempted to counter this trend by using low-absorption terracotta and fair hues of building paints and a larger proportion of the sun's rays are bounced back into the atmosphere. By comparison, Americans have constantly concentrated more on the aesthetic qualities of their architecture, using inefficient but visually pleasing resources. Studies now show that the importance of color is so striking that temperature differences between a light rooftop and a darker one can exceed 70 degrees.
- 4 The second main determinant is the lack of vegetation in urban environments. As more people move into cities and away from rural communities, trees and vegetation are displaced to make way for new roadways and other infrastructure. Planners shift their attention away from replacing lost greenery toward the construction of enough residential and commercial buildings to accommodate the increasing population. They fail to notice the obvious ways in which trees can reduce heat – by limiting wind speed or by shading buildings and intercepting sunlight by absorbing the radiation through their foliage.

Covering an air conditioning unit with vines, for example, can keep the machine cool and allow it to function more efficiently. Deciduous trees planted on the west and south sides, which are the sunniest, of buildings can provide enough shade to cut down energy consumption by up to 30%. Furthermore, shrubs and bushes can neutralize atmospheric heat by releasing water through evapotranspiration like when a person sweats during physical activity. A plant takes in groundwater through its roots and secretes it through pores in its leaves. A large tree may produce up to 40 gallons of water in a day, effectively eliminating as much heat as a 100 W bulb left on for eight hours. The neutralizing effect of this process can greatly lower the temperature in an urban environment. A concentrated effort to create more green space within cities would not only enhance the city's beauty, but also most importantly, temper the conditions found in hot cities.

1. The word *desolate* in the passage is closest in meaning to
  - (A) bleak
  - (B) flat
  - (C) narrow
  - (D) exuberant
2. According to the passage, an Urban Heat Island is termed so because
  - (A) the temperature of the city is significantly greater than that of the suburbs
  - (B) an isotherm in the urban area resembles the contour line of an island
  - (C) it usually happens in heavily industrialized areas of major isles
  - (D) the location of the city in which it occurs is isolated from other areas
3. The word *strain* in the passage is closest in meaning to
  - (A) animation
  - (B) account
  - (C) repentance
  - (D) burden
4. The word *detrimental* in the passage is closest in meaning to
  - (A) pointed
  - (B) harmful
  - (C) incremental
  - (D) flattering



5. According to paragraph 3, deep colored buildings contribute to a rise in temperatures by
- (A) increasing the amount of radiant energy reflected
  - (B) inhibiting the absorption of energy by nearby plants
  - (C) not giving off a great deal of heat into the atmosphere
  - (D) requiring occupants to use higher levels of energy

Paragraph 3 is marked with an arrow [➡].

6. The word *itself* in the passage refers to
- (A) radiation
  - (B) warmth
  - (C) sunset
  - (D) city

7. In paragraph 3, the author mentions Mediterranean cultures in order to
- (A) contrast their response to the UHI to that in America
  - (B) emphasize the ill effects of buildings painted in dark colors
  - (C) argue that America's overuse of energy causes heat islands
  - (D) show beauty and function can both be incorporated into design

Paragraph 3 is marked with an arrow [➡].

8. According to the passage, in which of the following environments, would an Urban Heat Island least likely happen?
- (A) Dark colored buildings with thick trees
  - (B) Light colored buildings with thick trees
  - (C) Dark colored buildings with sparse vegetation
  - (D) Light colored buildings with sparse vegetation
9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) If a city concentrated more upon nature, then it would look much more attractive.
  - (B) With the increasing temperatures, cities have been turning to green spaces as a solution.
  - (C) For both appearances and temperatures, urban areas need more greenery.
  - (D) Making green tracts of land adds to the beauty of urban areas to a great extent.

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Urban Heat Islands are created by the confluence of numerous factors that raise the ambient temperatures.**

Answer Choices

- |   |   |
|---|---|
| (A) Smog in industrial cities is growing worse due to the increasing temperature.                 | (D) High temperatures lead to human actions which exacerbate the problems.                  |
| (B) Los Angeles has suffered from Urban Heat Islands most severely.                               | (E) A plant repeats to absorb water through its roots and then emit it into the atmosphere. |
| (C) The rise in temperatures is attributed to the scarcity of plants which have a cooling effect. | (F) Densely packed buildings reserve much solar radiation and release it slowly.            |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.468

### [3] Symbiosis

- 1 ➡ No life on earth is isolated; survival depends on interactions with other species. The most common influential relationships involve food: competing for the same food supply, hunting for prey, and avoiding being prey. Should the reliance on another species reach a level so great the organisms are interdependent, scientists consider them to be symbiotic, or having a prolonged association that is necessary for the continued existence of either one or both.
- 2 Symbiotic living arrangements are commonplace in the natural environment and researchers hold a vested interest in identifying these pairs, particularly when the survival of one is critical for human employment. Agriculture and sustainable ecology, for example, require a comprehensive appreciation of species because if delicate relationships are ignorantly severed, then the organisms may perish.
- 3 One way organisms can form symbiotic relationships is when each partner mutually benefits from the presence of the other. This type of relationship is called mutualism and usually develops between two radically divergent samples of plants or animals. One may produce waste that feeds the other, or it may provide conditions, such as shade, protection, or shelter, indispensable to survival. The most common type of mutualism involves an organism that eats leftover food from the mouth of another larger creature, thereby keeping the oral cavity clean and assisting with general hygiene. Another kind of beneficial arrangement is nitrogen fixation, usually appearing in legumes like peas and clover, which harbor bacteria in their roots. The bacteria convert atmospheric nitrogen into ammonia, and in return the legumes supply them with oxygen and nutrients. Nitrogen is also important to the environment as a whole since animals get the bulk of their required nitrogen from absorbing these plants.
- 4 However, if only one species benefits and the other neither benefits nor is harmed, then this symbiotic relationship is classified as commensalism. This literally means 'at the table together' since it was first used to describe one group of animals consuming the unused food of another. The commensal, the one that benefits from the waste or existence of the other, is often a small scavenger accompanied by a large predator, whereby the scavenger feeds off food left behind by its companion. While initially the definition was related only to food, it has now been expanded to include other benefits, such as access to sunlight. In a rainforest, the dense canopy limits the amount of light that falls to the forest floor, so shorter plants are often overshadowed by taller ones. Epiphytes are small plants that perch on tall plants for better access to the sun, but they do not take any nutrients like parasitic plants do.
- 5 The last type of relationship, parasitism, is the best known and also the most widely studied. ■ Parasitism is when one species is negatively affected by the other such as when diminutive parasites damage their comparatively enormous hosts in two major ways; the first is by consuming the host organism itself and using its anatomy as a nutrient supply. ■ While in some cases this entails actually ingesting tissue like the hookworm which sucks human blood, other types hijack cells and divert their resources. ■ For example, viruses



appropriate a cell causing it to replicate the virus and when all the resources have been exhausted, the cell explodes and spreads the new viruses to other cells. ■

- 6 ➡ The second way parasites injure their hosts is by liberating toxins. These invaders aren't purposely trying to harm their host, but the toxins produced are by-products of their cellular metabolism. Humans are constant host to a stream of bacteria, and it is by mere chance that some of the bacteria have waste that is toxic to humans. For example, exotoxin is a waste product of diphtheria that is extremely poisonous to humans, and it causes irreparable deterioration to the nervous system, inflames tissue, and damages the heart. Up to a quarter of all people infected die unless treated immediately. It is, however, better for the parasite to allow the host to survive as long as possible since this is the primary resource for its own reproductive health.
- 7 These relationships are not fixed and it is not uncommon for one type to evolve into another. For instance, the bacteria that live in our intestines produce vitamin K, so what was once commensalism has progressed into mutualism. Therefore, it is cardinal to remember that all life is interdependent and removing one species without acknowledging its interrelationships can potentially have severe repercussions on the biosphere as a whole.

1. According to paragraph 1, which of the following is true of symbiosis?
- (A) The relationship is only reflected in organisms that are isolated in the distance.
  - (B) The relationship breaks when one species becomes independent.
  - (C) The relationship is seldom found in the natural environment.
  - (D) The relationship is indispensable to at least one of the species.

Paragraph 1 is marked with an arrow [➡].

2. The word perish in the passage is closest in meaning to
- (A) cohere
  - (B) expire
  - (C) abate
  - (D) endeavor
3. What can be inferred about nitrogen fixation in the passage?
- (A) Legumes release nitrogen gas back into the atmosphere.
  - (B) Animals and plants can't directly absorb atmospheric nitrogen.
  - (C) Ammonia is created and has a bad effect on plants.
  - (D) The legumes usually benefit more than the bacteria.

4. The word **harbor** in the passage is closest in meaning to
- (A) persecute
  - (B) subsidize
  - (C) accommodate
  - (D) inaugurate
5. The word **its** in the passage refers to
- (A) existence
  - (B) predator
  - (C) scavenger
  - (D) food
6. The author mentions **Epiphytes** in the passage in order to
- (A) show that most of the commensals are plants
  - (B) give a reason why they do not need nutrients
  - (C) give an example of a stretched definition of commensals
  - (D) explain how important the sunlight is to plants
7. The word **entails** in the passage is closest in meaning to
- (A) oversees
  - (B) involves
  - (C) retails
  - (D) antecedes
8. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**This cycle continues until the host can no longer survive or is able to fight off the invasion.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

9. Which of the following is true of diphtheria in paragraph 6?
- (A) It has no limit in its growth.
  - (B) It forbids its host to reproduce.
  - (C) It has metabolic disorders.
  - (D) It doesn't attack its host directly.

Paragraph 6 is marked with an arrow [➡].

10. In stating that it causes irreparable deterioration the author means that it is
- (A) springy
  - (B) curable
  - (C) unbeatable
  - (D) lethal
11. Which of the following can be inferred about a parasite in paragraph 6?
- (A) It keeps its host alive as much as possible.
  - (B) It gains access to the host's blood where the nutrients are.
  - (C) It takes various forms as long as the other is uninjured.
  - (D) It uses the host for protection from poisons.

Paragraph 6 is marked with an arrow [➡].

12. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Symbiosis shows the importance of interspecies relationships in nature.**

- 
- 
- 

Answer Choices

- |   |   |
|---|---|
| (A) Once the association between two organisms is set, it is unalterable.                             | (D) It is true that two different organisms are advantageous to each other.     |
| (B) The relationship is sometimes lopsided with one deriving some advantage and the other unaffected. | (E) Humans are responsible for upsetting the balance between symbiotic species. |
| (C) It is crucial for one partner to keep up hygiene for another.                                     | (F) The connection is injurious to the host, but helps its partner.             |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.469



#### [4] The Chicago School of Thought

- 1 Of all U.S. cities, Chicago has been examined more extensively than any other and it has become the model city that has most influenced the academic discourse of urban studies. This partially stems from a happenstance of location and the town's seeming representation of the social changes occurring across the nation when the world's first sociology department was founded at the University of Chicago in 1891. The burgeoning discipline's analyses of urban growth and development in the surrounding region led to an influential model for the study of urban sociology. The field of sociology initially developed as a pedagogic reaction to the perceived disintegration of the traditional social structure in the growing city of Chicago. As new immigrants and poor rural farmers migrated to the cities en masse searching for work and better lives, population density increased exponentially, as did levels of juvenile delinquency, petty crimes, and tensions among ethnic groups. Early sociologists focused on the ramifications of traditional social relationships and status in order to provide context to the emerging urban society and ascertain the proper method for alleviating these social ills.
- 2 ➡ The subsequent group of sociologists, known as the Chicago School of Thought, took a very different approach to the study of urban sociology because they faulted their predecessors for failing to appreciate the true nature of the modern city due to an overemphasis on historical bias. They, on the other hand, viewed the developing city as a tabula rasa – a blank slate – that newcomers to the city had freedom to design in the image best suited for them and looked more to the immediate factors at work within the social dynamic.
- 3 This blank slate created a backdrop allowing for the transformation of traditional social relationships. Accordingly, the consequent Chicago scholars conceived of the city as a new urban ecology developing its own rules as it evolved – an environment akin to nature, subject to natural, Darwin-like laws that could be observed and analyzed. Paramount in this conceptualization was the notion of competition as a driving force in the shaping of the spatial organization of the city. The Chicago School suggested that the challenges of securing life's necessities in the scarcity of the large, urban area bring about competition, particularly for land. The competition then leads to a differentiation of the urban area into separate zones, resembling concentric circles. The center, which the scholars called the Loop after the nickname for Chicago's downtown, represents a settlement's initial focus where the people gather to conduct important business. As the population increases, the center becomes so congested that the more affluent will move in order to secure greater tranquility, in a process called succession.
- 4 Ultimately as the town expands, and its prosperous residents succeed to other areas, five adjacent zones are established. The Loop becomes progressively more commercial as corporations and factories begin to concentrate in the center and dominate the central, urban geography. ■ The secondary area, referred to as a transition zone, immediately encircles the Loop. ■ The third area comprises the "workingmen's homes," where lower-income working people reside primarily in tenements a relatively short distance from their jobs. ■ This group has managed to escape from the area in transition, but still needs to live

close to the work in the Loop that sustains its economic status. ■ Nearing the periphery of the city proper, a middle class residential zone for the more established municipal citizens comes into being. These residents tend either to be professionals with higher salaries or families with longer economic histories. Finally, a suburban residential area in the fifth instance is occupied by the upper economic classes who commute to work from the serenity of the city periphery. In the final phase, the city's concentration of essential power and influence swings from the center to the outer circle, where the most affluent reside and the downtown degrades to become the least desirable area, possessing the greatest social and physical deterioration.

- 5 Scholars presented this model as an emblematic guide for the understanding of all urban sociology and used it to develop a methodical system of urban demographics, demonstrating relationships of wealth, power, and social conditions. In subsequent years, this ecological model would come under criticism for being so simplistic that it could not explain the growth of satellite cities, which became popular in the post-WWII period. Yet, no other theory has had as much influence on the discipline and even now, the theory continues to shape the discourse of urban studies and demographics.

1. The word *partially* in the passage is closest in meaning to
  - (A) specifically
  - (B) passively
  - (C) sensibly
  - (D) fractionally
2. According to the passage, what role did sociology have in the late 19<sup>th</sup> century?
  - (A) To react to the needs of the growing population in Chicago
  - (B) To explain the movements of the rich into suburban areas
  - (C) To study the change in the framework of society
  - (D) To meet the growing demand for urban studies at the University
3. The word *alleviating* in the passage is closest in meaning to
  - (A) mitigating
  - (B) parroting
  - (C) discountenancing
  - (D) condensing
4. What does the author state about the sociologists of the Chicago School of Thought in paragraph 2?
  - (A) They did not differ much from other groups of contemporary sociologists.
  - (B) They felt the urban area should be designed to suit its inhabitants.
  - (C) They believed immigrants should have more freedom in the city.
  - (D) They disagreed with explanations posited by previous sociologists.

Paragraph 2 is marked with an arrow [➡].

5. Why does the author mention Darwin-like laws?
- (A) To claim that laws can be directly studied and understood
  - (B) To suggest the theory that the city evolves as a result of competition
  - (C) To argue that ecology is the basis for developing urban centers
  - (D) To insist that organizations are dependent upon the imposed rules
6. The word **Paramount** in the passage is closest in meaning to
- (A) Patchy
  - (B) Continual
  - (C) Supreme
  - (D) Pinpoint
7. According to the passage, for which of the following reason did the scholars of the Chicago School name the center the Loop?
- (A) Their theory was modeled on Chicago.
  - (B) People with money preferred to live in the downtown.
  - (C) They believed that everyone congregated in one main zone.
  - (D) Ample land around the center suppressed the expansion.

8. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**It consists of cheap-rent slums and is inhabited by new arrivals and households moving out of the center but not yet able to afford the better accommodations.**

Where would the sentence best fit?



Click on a square [■] to add the sentence to the passage.

9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Movement by the wealthy away from the inner circle weakens the city's power and leads to the retrogression of society.
  - (B) The power in the Loop moves towards the periphery in the last stage and the Loop goes through degeneration.
  - (C) The social and physical degradation of the downtown is the result of a shift in the power structure of the city.
  - (D) The final step of a city's evolution is marked by the decay of power of those who left the center to live in outlying areas.



10. Why does the author mention satellite cities in the passage?
- (A) To illustrate a new idea which won popularity following World War II
  - (B) To model how the urban growth process works for regions outside the five main zones
  - (C) To show a development which the Chicago Model is unable to account for
  - (D) To highlight the accuracy with which the Chicago Model predicted urban growth
11. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The Chicago School of Thought suggested the sociological model which shows how cities use land and grow.**

Answer Choices

- |  |  |
|--|--|
| (A) The Chicago School of Thought was mainly concerned with discovering the factors that contributed to urban social ills. | (D) The Chicago School of Thought reckoned cities as a blank slate which could be redesigned by people moving into the city. |
| (B) Cities organize their space according to the competition resulting from a need for procuring requisites.               | (E) Cities evolve with time and develop distinct areas defined by unique economic and social characteristics.                |
| (C) The interior rings of the city generally house the poorest people towards the end of a city's development.             | (F) Owing to the easy access to convenient facilities, professionals and the upper classes tend to stay in the urban center. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.471

# CHAPTER 09 | Category Chart

## Overview

Category Chart 문제는 지문에서 비교 대조되고 있는 중요한 정보들을 문제에 제시된 각 category (범주)에 맞게 분류, 정리하는 유형이다. 따라서 Category Chart 문제를 정확히 해결하기 위해서는 지문을 읽으며 각 category에 대한 다양한 특징들을 정확하게 파악하고 분류하여 정리하는 연습이 필요하다. Category Chart 문제는 iBT에 새롭게 출제되는 문제 유형으로 지문당 1개의 문제가 출제되기도 하고 아예 출제되지 않기도 한다. Category Chart 문제가 출제되지 않는 지문에는 앞장에서 다룬 Summary 문제가 출제된다.

## Types of Questions

4지선다의 질문 형태와는 달리, directions와 보기, category chart가 제시되는데 보기는 category chart에 정답으로 들어갈 수 있는 개수 보다 많이 주어진다. 3점 또는 4점 만점이며 부분 점수가 있다. (빈칸의 개수가 5개인 경우: 5개 - 3점, 4개 - 2점, 3개 - 1점, 0~2개 - 0점, 빈칸의 개수가 7개인 경우: 7개 - 4점, 6개 - 3점, 5개 - 2점, 4개 - 1점, 0~3개 - 0점) Category Chart 문제의 전형적인 질문 유형은 아래와 같다.

Directions: Select the appropriate phrases from the answer choices and match them to the category to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Category 1
	•
	•
	•
	Category 2
	•
	•

## 전략 1 지문을 읽으며 Note-taking을 한다.

문제에 제시된 category를 확인한 후, 지문을 읽으며 각 category에 해당하는 내용을 분류, 정리하며 Note-taking을 한다.

Ex Trees can be classified into two broad categories: coniferous and deciduous. Coniferous trees have narrow or overlapping leaves and bear their seeds in cones. Nearly all coniferous trees are evergreens, meaning they maintain their leaves throughout the year. They shed only the oldest leaves, which are usually on the lower half of the tree and do not receive as much sunlight as newly developed leaves higher up. They are either long pointed needles or small, flat scales. Cones, considered the flower on the conifer, will disintegrate to release seeds for reproduction. Conifers are known for their durability and size, having some of the largest and oldest living plants in the world.

Deciduous trees, on the other hand, do not bear their seeds in cones and their foliage drop in autumn. Before this, the leaves often turn a yellow, orange, or red color. They are also known as broadleaf trees due to having leaves that are wider than those of the conifers. This allows for a greater surface area for photosynthesis but also means the leaves are too fragile to withstand cold weather. New foliage appears each spring. The seeds of deciduous trees are protected inside a hard nut or fleshy fruit and are dispersed when eaten by animals. Oaks and maples are two of the most common examples of deciduous trees.

Directions: Select the appropriate phrases from the answer choices and match them to the type of trees to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Coniferous Trees
	•
	•
	Deciduous Trees
	•
	•
	•

➔ 문제에 제시된 category는 coniferous trees와 deciduous trees이므로, 이 둘에 해당하는 내용을 분류, 정리하며 Note-taking을 한다.



•	<b>Coniferous</b>
	– narrow or overlapping leaves
	– seeds in cones
•	– evergreen
	– shed only oldest leaves
	– cones disintegrate to release seeds for reproduction
•	– durability & size
•	<b>Deciduous</b>
	– foliage drop in autumn
	– leaves yellow, orange, red
•	– broadleaf
	– greater photosynthesis but too fragile to cold weather
	– new foliage appear spring
•	– seeds inside nut or fruit + dispersed by animals

**Tip** Category Chart 문제가 출제되는 지문의 경우에는, 비교 대조되고 있는 category 별로 단락이 구성되어 있는 경우가 대부분이다. 따라서 Note-taking을 할 때, 각 category 아래에 각각의 특징들을 정리하는 것이 효과적이다.

## 전략 2 보기와 Note-taking을 비교 확인하여 답을 선택한다.

보기와 Note-taking한 내용을 비교하며 답을 고른다. 보기에 Note-taking 되어 있지 않은 내용이 있을 경우, scanning을 통해 보기의 keyword를 지문에서 찾아 내용을 확인한 후 답을 선택한다.

Answer Choices	Coniferous Trees
(A) Production of pollen	•
(B) Narrow foliage	•
(C) Color changes in leaves	
(D) Extremely thin barks	
(E) Partial loss of leaves	
(F) Vulnerability to cold	•
(G) Seeds enclosed in berries	•

➔ 보기 (B)는 coniferous의 1번째 메모와 일치, 보기 (C)는 deciduous의 2번째 메모와 일치, 보기 (E)는 coniferous의 4번째 메모와 일치, 보기 (F)는 deciduous의 4번째 메모와 일치, 보기 (G)는 deciduous의 6번째 메모와 일치한다.

**전략 3** 보기 중 오답을 확인한다.

지문의 내용과 상반되거나 지문에 언급되지 않은 보기는 오답으로 간주된다.

Ex The dull and imperceptible strength of gravity coerces moons to orbit planets, which in turn move around one of the many stars that, altogether, compose an integrated galaxy of celestial bodies. This gargantuan collection of interstellar matter may contain hundreds of billions of solar systems and present themselves in three main shapes, the most prevalent being spirals and ellipticals.

Gravity plays an important role in the creation of the unique shape of spiral galaxies, formed following the Big Bang, when clouds of gas and dust were pulled into pockets of mass. These temporary collections merge and collapse under their own weight, causing some light elements to fuse into only slightly luminous heavy stars, classified as Population II types. The continuous gravitational force draws them together, arranging them in a halo around the center of the celestial cloud, maintaining a slight momentum. The cluster's mass increases more toward the nucleus, contributing to its rate of rotation. This causes heavier elements to be flung toward the outer edges, and in turn, the disc begins to flatten, coalescing into the spiral galaxy's characteristic arms.

Since elliptical galaxies do not have arms, there isn't any secondary star formation even though their initial development may be similar to their spiral neighbors. In fact, both types of galaxies began as a reaction to the Big Bang; however, in the case of elliptical versions, the first stage of creation consumes all the gas and dust to create numerous Population II stars with leaving nothing left over to spread out into arms. As a result, solar systems disperse evenly throughout the galaxy with no discernable core. Without the accretion of mass in the center, there is no conservation of angular momentum and any perceivable spin slowly ebbs over time.

Answer Choices	Spiral Galaxies
(A) Came into existence prior to the Big Bang	(C) Have greater mass in the center than in the edges
(B) Are easy to examine because of the illuminating light	Elliptical Galaxies
	(D) Do not create derivative stars

지문의 내용과 상반된 오답

(A) Came into existence prior to the Big Bang

Spiral galaxy와 elliptical galaxy 모두 Big Bang 후에 생겨났다고 했으므로 지문의 내용과 상반된다.

지문에 언급되지 않은 오답

(B) Are easy to be observed because of the illuminating light

지문에 luminous, light과 같은 단어들이 나오기는 하지만 빛 때문에 쉽게 관찰된다는 내용은 지문에 언급되지 않았다.

## Hackers Strategy Application

The Civil War that raged across the nation from 1861 to 1865 was the violent conclusion to decades of diversification. Gradually, throughout the beginning of the nineteenth century, the North and South followed different paths, developing into two distinct and very different regions.

The northern soil and climate favored smaller farmsteads rather than large plantations. Industry flourished, fueled by more abundant natural resources than in the South, and many large cities were established (New York was the largest city with more than 800,000 inhabitants). By 1860, one quarter of all Northerners lived in urban areas. Between 1800 and 1860, the percentage of laborers working in agricultural pursuits dropped drastically from 70% to only 40%. Slavery had died out, replaced in the cities and factories by immigrant labor from Europe. Transportation was easier in the North, which boasted more than two-thirds of the railroad tracks in the country and the economy was on an upswing. Northerners belonged to the Whig/Republican political party and they were far more likely to have careers in business, medicine, or education. Northern children were slightly more prone to attend school than Southern children.

The fertile soil and warm climate of the South made it ideal for large-scale farms and crops like tobacco and cotton. Because agriculture was so profitable, few Southerners saw a need for industrial development and eighty percent of the labor force worked on the farm. There were no large cities aside from New Orleans, and most of the ones that did exist were located on rivers and coasts as shipping ports to send agricultural produce to European or Northern destinations. Only one-tenth of Southerners lived in urban areas and transportation between cities was difficult, except by water – only 35% of the nation's train tracks were located in the South. A slightly smaller percentage of white Southerners were literate than their Northern counterparts, and Southern children tended to spend less time in school. As adults, many Southern men joined the Democratic political party and gravitated toward military careers as well as agriculture.

Directions: Select the appropriate phrases from the answer choices and match them to the region to which they relate. ***This question is worth 3 points.***

Answer Choices	The North
(A) Import of agricultural products from Europe	•
(B) Majority of train tracks present	•
(C) Employment of slave labor on farmsteads	•
(D) Economy based on agriculture	The South
(E) Growth of industry-based cities	•
(F) Strong affiliation with the Democratic party	•
(G) Labor supplied by European immigrant	



**전략 1 적용** 비교되고 있는 두 category는 the North와 the South이다.

Note-taking

•	<b>The North</b>
	- smaller farmsteads
•	- industry flourished & large cities established
•	- slavery died out → replaced by immigrant labor fr. Europe
•	- transportation was easier, > more than 2/3 of railroad tracks in the country
•	- Whig/Republican party
•	- careers in business, medicine, education
•	- children more prone to attend school
•	<b>The South</b>
•	- large-scale farms, 80% of labor worked on the farm
•	- X large cities, most cities located on rivers + coasts
•	- transportation btw. cities was difficult
•	- children spend less time in school
•	- Democratic party
•	- military career, agriculture

**전략 2 적용** 보기 (B)는 the North의 4번째 메모와 일치, 보기 (D)는 the South의 1번째 메모와 일치, 보기 (E)는 the North의 2번째 메모와 일치, 보기 (F)는 the South의 5번째 메모와 일치, 보기 (G)는 the North의 3번째 메모와 일치한다.

**전략 3 적용** (A) 지문의 내용과 상반된 오답  
지문에서 the South가 농산품을 유럽으로 보냈다고 했으므로 지문의 내용과 상반된다.  
(C) 지문에 언급되지 않은 오답  
농장에서의 노예의 이용은 지문에 언급되지 않았다.

**정답** The North-(B), (E), (G) The South-(D), (F)

# HACKERS PRACTICE

- Read each passage and fill in the blank of the note-taking form for each.

1. Oak trees live in association with usually two kinds of fungi. These fungi live on or in the oak trees' roots. They also extend beyond the roots to collect nutrients and water for themselves. Other plants as well as the oak trees are connected to this mycorrhizal\* grid.

One kind of these mycorrhizal fungi is called Ectomycorrhiza, as it resides on the outside of the oak's roots. It can be seen with the naked eye. It extracts nutrients from the oak leaf litter as it breaks the litter down, and shares some of these nutrients with the oak. It dwells in the top four inches of soil under the canopy of the tree.

The other kind is called Vescicular-Arbuscular mycorrhiza, or VA mycorrhiza. This kind is found inside the oak trees' roots and is microscopic. It inhabits the soil zone below the Ectomycorrhizal fungi, from four inches below the soil surface to 20 feet down into the ground.

## Glossary

mycorrhizal : being the symbiotic association of the mycelium of a fungus with the roots of certain plants

## Note-taking

•	Ectomycorrhiza
•	– (A)
•	– seen w/ naked eye
•	– extracts nutrients fr. oak leaf litter & share them w/ oak
•	– (B)
•	(C)
•	– found inside roots
•	– (D)
•	– inhabits below soil surface

## Vocabulary

The word        in the passage is closest in meaning to

- |           |              |              |               |             |
|-----------|--------------|--------------|---------------|-------------|
| 1 collect | (A) guard    | (B) hoard    | (C) economize | (D) escort  |
| naked     | (A) sinister | (B) inclined | (C) uncanny   | (D) unaided |
| litter    | (A) sprig    | (B) hazard   | (C) refuse    | (D) prudery |

2. Jade is the name used to describe either of two hard, dense, usually green gemstones. The more highly prized of the two is jadeite and the other is nephrite. Both jadestones take a high polish and have been carved into jewelry, ornaments, small sculptures, and tools from the earliest recorded times.

The microscopic crystals in both minerals are tightly interlocked to form a compact aggregate, but they differ in chemical composition. Jadeite is a silicate of sodium while nephrite is a silicate of calcium and magnesium.

Both jadestone types may be white or colorless, but may occur as red, purple, yellow, or gray due to the presence of iron, chromium, or manganese. Some colors are specific to one mineral or the other. The popular emerald-green jewelry jades are usually jadeite. The two different types, when worked and polished, can be distinguished by their appearance. The luster of polished nephrite is oily; that of jadeite is glassy. The main source of gem-quality jadeite is northern Myanmar whereas nephrite occurrence is more geographically widespread, including North America.

## Note-taking

•	Chemical composition
	– jadeite: silicate of sodium
•	– (A)
	(B)
•	– nephrite: oily
	– (C)
•	Main source
	– (D)
•	– nephrite: widespread, including North America

## Vocabulary

The word  in the passage is closest in meaning to

- |   |           |               |               |                |              |
|---|-----------|---------------|---------------|----------------|--------------|
| 2 | prized    | (A) treasured | (B) haphazard | (C) improvised | (D) wayward  |
|   | ornaments | (A) glues     | (B) trinkets  | (C) staples    | (D) relishes |
|   | specific  | (A) burly     | (B) gleaming  | (C) thick      | (D) proper   |



3. While most people associate the making of cloth with women, activities of weaving and knitting were originally male-only occupations. However, the industrialization of the Western world turned most textile trades into factory processes, leaving others, especially those two, to be picked up by the women left at home. Weaving, the process of turning two threads of yarn into cloth by way of a loom, is most commonly employed for the creation of tapestries and rugs. It involves the interlacing of the two sets of thread, the weft and the warp, at 90 degrees to one another. The material is most commonly wool, cotton, or flax.

Another popular textile art, knitting, is used for making practical daily materials, such as sweaters, socks, scarves, and other clothing items. It is performed by the connection of horizontal and parallel threads by means of interlocking loops of varying sizes. Able to be performed by machine or hand, knitting patterns can vary greatly depending on the type of stitch used. Most complex stitches are formed by some combination of the two most basic stitches, the knit and purl. For instance, the garter stitch is simply back and forth rows of knits and purls, but the alteration of knit and purl rows will produce a stockinette stitch.

#### Note-taking

•	Weaving
	– (A)
•	– creation of tapestries & rugs
	– interlacing of weft & warp at 90 degrees to one another
•	– (B)
•	Knitting
	– (C)
	– (D)
•	– patterns vary depending on stitch type

**Vocabulary** The word   in the passage is closest in meaning to

- |   |             |                    |              |                |               |
|---|-------------|--------------------|--------------|----------------|---------------|
| 3 | occupations | (A) pastimes       | (B) hiatuses | (C) appliances | (D) pacts     |
|   | commonly    | (A) insolently     | (B) nearly   | (C) generally  | (D) ominously |
|   | alteration  | (A) transformation | (B) impetus  | (C) innovation | (D) momentum  |

4. With a few exceptions, all mammals and birds are warm-blooded, and all reptiles, insects, arachnids, amphibians, and fish are cold-blooded. What does it mean to be warm-blooded or cold-blooded? The temperature of an animal's blood is related to its body temperature.

Warm-blooded creatures try to keep the inside of their bodies at a constant temperature. They do this by generating their own heat when they are in a cooler environment, and by cooling themselves when they are in a hotter environment. To generate heat, warm-blooded animals convert the food that they eat into energy. They have to ingest a lot of food, compared with cold-blooded animals, to maintain a stable body temperature. Only a small amount of the food that a warm-blooded animal eats is converted into body mass and the rest is used to fuel a constant body temperature.

Cold-blooded creatures take on the temperature of their surroundings. They are hot when their environment is hot and cold when their environment is cold. In hot environments, they can have blood that is much warmer than warm-blooded animals'. They are much more active in warm environments and are very sluggish in cold environments. This is because their muscle activity depends on chemical reactions which run quickly when it is hot and slowly when it is cold. A cold-blooded animal can transform much more of its food into body mass compared with a warm-blooded animal.

#### Note-taking

•	Warm-blooded creatures
	– keep inside of bodies at constant temperature
•	– (A)
	– (B)
•	– ingest much food to maintain constant body temperature
	– only small food is converted into body mass
•	Cold-blooded creatures
	– (C)
•	– active in warm environments and sluggish in cold ones
	– (D)

#### Vocabulary

The word  in the passage is closest in meaning to

- |              |                 |                  |              |              |
|--------------|-----------------|------------------|--------------|--------------|
| 4 exceptions | (A) motivations | (B) mishaps      | (C) freaks   | (D) articles |
| constant     | (A) hectic      | (B) mute         | (C) naive    | (D) fixed    |
| maintain     | (A) keep up     | (B) pass through | (C) overtake | (D) pare     |

- Read each passage and answer the corresponding question for each.

5. The form versus content debate in all fields of art criticism has dominated the academic scene for over a century. The debate has produced two schools of thought, namely the Formalist and Contextualist schools, which represent differing perspectives on how art should be viewed, analyzed, interpreted, and appreciated. Essentially, the two perspectives differ in what each values as the central or important aspect of any artwork. There is the Formalist approach, with its emphasis on pure artistic qualities; the composition, color, shape, and specific techniques take top priority. Formalists argue that a piece of art is to be appreciated for its aesthetic qualities. A viewer's reaction or emotive response comes from those artistic qualities rather than from any external significance. While some view this perspective as limiting, formalists suggest that a deep understanding of art necessitates its separation from pre-designated interpretations or analyses based on historical or social context.

Incompatibly, Contextualists defend the inherent significance of the conditions that caused the production of an artwork. Contextualism contends that art's meaning is to be found in the socio-historic environment in which it was produced and even in the influence a given artwork has had from a historic or psychological perspective. It is not that contextualism denies the significance of form, but rather that it interprets form based on the external factors that Formalism is apt to negate. While a Formalist would consider the name of an artist interesting, yet insignificant, a Contextualist would purport that an understanding of that artist's social background will give meaning to the stylistic choices of that particular piece. In the end, both schools of thought fail to validate each other's point of view, resulting in a rather distinctive dichotomy in the realm of art criticism.

Directions: Select the appropriate phrases from the answer choices to complete the Contextualist's approach to art analysis.

Formalist	<ul style="list-style-type: none"> <li>● Credence given to the physical properties of the painting itself</li> <li>● Disregard of previous categorization for a keen appreciation of art</li> </ul>
Contextualist	<ul style="list-style-type: none"> <li>●</li> <li>●</li> </ul>

#### Answer Choices

- (A) Understanding of the artwork as conditioned by a given environment
- (B) Importance placed on the economic value of the piece of art
- (C) Analysis of artistic form on the basis of exterior elements
- (D) Attraction to artwork based on the name of the artist

**Vocabulary** The word        in the passage is closest in meaning to

- |                |                |                |                 |               |
|----------------|----------------|----------------|-----------------|---------------|
| 5 perspectives | (A) incentives | (B) patterns   | (C) standpoints | (D) addresses |
| emphasis       | (A) illusion   | (B) negligence | (C) patience    | (D) stress    |
| inherent       | (A) innate     | (B) neat       | (C) nervous     | (D) obedient  |



6. Frequently confused and often misidentified, the piano and harpsichord are instruments that while they share many qualities, differ in fundamental ways. An important distinction is in the structure of the keys. There are 88 keys on a piano, resulting in a 7 1/4 octave range. Harpsichords, meanwhile, will only have a 4–4 1/2 octave range. On both instruments the keys are made of wood, but their widths differ dramatically, with the piano keys being almost twice the size. Aside from the physical structure of the keys, the manner in which the keys are played, resulting from the internal construction of the instruments, is of great importance.

The piano is designed with the idea in mind that when a key is pressed, it causes a felt-covered hammer to strike strings stretched on a rigid frame. The vibration caused by the striking of the strings results in vibrations that cause sounds. The pianist must put a good amount of weight and muscle into the action of playing, using her/his back, shoulders, arms, and hands to ensure that the proper amount of pressure results in the desired sound. Thus, the pianist finds it difficult to adjust to the sensitivity of a harpsichord. Since the latter's keys are directly in line with the framed strings, no effort or muscle is needed to produce sound. In a harpsichord, the pressing of a key causes a jack, a thin strip of wood holding a quill at the top, to pluck the string by coming up from below it until the quill slides around the string and returns below. The jack is engineered in a way that no matter how the key is pressed, the quill will pluck the string at the same pace and strength. The inflexible nature of the harpsichord ironically makes it one of the easiest to play and one of the most accurate musical instruments.

Directions: Select the appropriate phrases from the answer choices to complete the characteristics of harpsichord.

Piano	<ul style="list-style-type: none"><li>● Permits the greatest amount of regulation by the player</li><li>● Produces sound as a result of striking-induced vibration</li></ul>
Harpsichord	<ul style="list-style-type: none"><li>●</li><li>●</li></ul>

#### Answer Choices

- (A) Utilizes back strength of the player
- (B) Possesses strings and keys on the same linear axis
- (C) Has a jack which pulls the string
- (D) Has the keys made of metal

**Vocabulary** The word   in the passage is closest in meaning to

- |   |            |                 |                  |                |               |
|---|------------|-----------------|------------------|----------------|---------------|
| 6 | qualities  | (A) pensions    | (B) attributes   | (C) antitheses | (D) intervals |
|   | desired    | (A) immense     | (B) permanent    | (C) expected   | (D) tedious   |
|   | inflexible | (A) omnipresent | (B) intermittent | (C) perverse   | (D) rigid     |

7. If there is more than one electrical device in a circuit with an energy source, there are a couple of basic ways to connect them. How they **function** within the circuit depends upon whether they are in series or in parallel.

If three light bulbs are connected together in the same circuit, they can be connected in series meaning that they are strung **consecutively** and the charge passes through each in order. In this manner, if one bulb is removed from its socket, then both of the others will **immediately** go out. In order for the circuit to be complete all of the devices must be in working order. The advantage to using this set-up is that power sources when coupled will increase the power of the circuit. Conversely, power sources in parallel will maintain the same voltage as that of a single source, but if the light bulbs are connected in parallel, each bulb receives the full charge from the source. An additional benefit of this set-up is that if one is unscrewed, the other two will continue to function normally.

When instead of light bulbs resistors are strung together, very different properties will be observed. For resistors in series, the total resistance is calculated by simply adding each together. Therefore three ten-ohm resistors would have a total resistance of 30 ohms when placed in series. For resistors in parallel, the computations become a bit more complex and less intuitive. The greater the number of resistors, the lower the total resistance. If two ten-ohm resistors are placed in parallel, the net resistance will be 5 ohms. If a third ten-ohm resistor is added in parallel, the resistance will drop to 3.33 ohms.

Directions: Select the appropriate phrases from the answer choices to complete the electrical devices in parallel.

In series	<ul style="list-style-type: none"><li>● When one bulb fails, it causes failure of other devices.</li><li>● Charges get through each bulb in consecutive fashion.</li></ul>
In parallel	<ul style="list-style-type: none"><li>●</li><li>●</li></ul>

#### Answer Choices

- (A) As the number of resistors diminishes, resistance rises.  
(B) Multiple devices can work independently.  
(C) An ohm is a unit used to measure electrical resistance.  
(D) The total resistance is unaffected by the addition of resistors.

**Vocabulary** The word **function** in the passage is closest in meaning to

- |               |               |                  |               |               |
|---------------|---------------|------------------|---------------|---------------|
| 7 function    | (A) operate   | (B) pant         | (C) intersect | (D) spoil     |
| consecutively | (A) aptly     | (B) serially     | (C) perfectly | (D) literally |
| immediately   | (A) primarily | (B) infrequently | (C) merely    | (D) instantly |



8. Native Americans have inhabited the North American continent since crossing the Bering Straight from Siberia some 17,000 to 11,000 years ago. No single event, not even the Ice Age, affected them quite as much as the arrival of the European Conquistadors. From Columbus' first step onto the New Land in 1492 until the 19<sup>th</sup> century, the slaughter and relocation of the Native Americans caused massive decreases in some populations and extinctions in others.

Prior to the entrance of the Europeans, Native Indians were tribal people that made their livings as hunters and gatherers. Historically they are remembered as a culture for their spiritual beliefs and medicinal practices, both of which were interlinked with their natural environments. Each tribe had its own unique language and customs, although the basic ways of living were very similar. For the most part, the Natives of North America lived natural and relatively peaceful lives, although warring between tribes over territorial disputes or other possessions was a routine practice.

The arrival of the Europeans interrupted the Native American way of life in almost every sector. First and foremost, a majority of the Native Americans were taken as slaves, for example, Christopher Columbus took 250,000 Arawaks from Haiti. Second, the conquistadors and subsequent settlers pushed the Indians off of their land and relocated them to remote and unfavorable settlements built specifically for the purpose of holding them. This caused the spread of a number of diseases and the loss of many cultural traditions that could not be upheld under such conditions. In fact, the Europeans brought with them a plethora of diseases to which the Native Americans were not immune.

Directions: Select the appropriate phrases from the answer choices to complete the situation of Native Americans after the arrival of the Europeans.

Native Americans prior to European colonization	<ul style="list-style-type: none"><li>● Earned their living by hunting and collecting food</li><li>● Lived in separate tribes that had common ways of life</li></ul>
Native Americans after the arrival of the Europeans	<ul style="list-style-type: none"><li>●</li><li>●</li></ul>

#### Answer Choices

- (A) Traveled primarily by canoes along the rivers and lakes to hunt
- (B) Were affected by a number of serious and foreign illnesses
- (C) Practiced the Christian beliefs of the Western European conquerors
- (D) Were forced to settle in residences designed for accommodating them

**Vocabulary** The word    in the passage is closest in meaning to

- |   |             |                 |                 |               |                |
|---|-------------|-----------------|-----------------|---------------|----------------|
| 8 | disputes    | (A) inflictions | (B) feuds       | (C) aims      | (D) alarms     |
|   | interrupted | (A) attenuated  | (B) illustrated | (C) suspended | (D) outweighed |
|   | unfavorable | (A) adverse     | (B) outspoken   | (C) parallel  | (D) underlying |



● Read each passage and answer the corresponding question for each.

9. Painting and sculpture remain today two of the most popular forms of artistic expressions. Painting, outdating sculpture by about 25,000 years, was the first artistic practice employed by humans around 32,000 years ago. The first paintings were engraved and painted on the insides of cave walls in Grotte Chauvet in France and depicted a variety of mammals from that time period. However, sculpture didn't get its start until around 5,000 years back in Egypt, only to be picked up by the Greeks and refined as a form of high art.

Painting, in essence, is the practice of applying suspended pigment and a glue to a surface. It is always focused on color and the manner in which color is employed to a two or three dimensional surface to illustrate or imitate a scene, person, or object. Sculpture, on the contrary, is an expression concerned almost solely with space: how to occupy it, relate to it, and influence our perception of it. It is always in three dimensional forms and typically imitates a person, deity, mythological figure, or imaginary creature.

In regards to the materials employed, painting and sculpture differ drastically. Painting, as mentioned above, requires both a medium carrying pigment and some form of adhesive, as well as a surface onto which to place the paint. Examples of the surface include paper, canvas, and mural. Painters can use oil, water mixable oil paints, gouache, ink, pastel, and more. Then there is, of course, the need for the medium with which to apply the paint, which is typically a brush, but can also take the shape of a sponge, or any other absorption capable medium.

In contrast, the materials used in sculpture are unlimited. Since sculpture is defined by the changing of one or more of the physical or contextual attributes of an object, such as its mass, texture, etc., the possibilities are infinite. Nonetheless, there are a number of materials traditionally used, including stone, clay, wood, and many more. However, contemporary artists are beginning to experiment with the use of gasses and other less traditional materials, revitalizing the classical form of expression.

Despite all their differences, painting and sculpture share a common goal; that is to record, interpret, and pass on the human experience. The first paintings were recordings of the mammalian and animal life available to early human civilization, which made future generations aware of the bounty in that area. Sculptures of pharaohs and gods adorned the ancient pyramids to ensure that the lives of such deities and nobles were not only remembered, but continued in the next world to return someday. In both cases, art functions as more than merely aesthetic pleasure; it hands down the history and future hopes from one generation to the next.

**Vocabulary** The word        in the passage is closest in meaning to

- |   |              |                 |              |               |             |
|---|--------------|-----------------|--------------|---------------|-------------|
| 9 | refined      | (A) narrated    | (B) grasped  | (C) polished  | (D) whipped |
|   | contemporary | (A) passive     | (B) cozy     | (C) paramount | (D) coeval  |
|   | adorned      | (A) embellished | (B) condoned | (C) shielded  | (D) clove   |

Directions: Select the appropriate phrases from the answer choices and match them to the type of artistic expression to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Painting
(A) Manipulates the characteristics of objects	●
(B) Usually illustrates animals and sea life	●
(C) Uses some form of adhesive	
(D) Utilizes unlimited types of elements	Sculpture
(E) Concentrates on how to treat space	●
(F) Is the most traditional form of artistic expression	●
(G) Has the role of aesthetic amusement at most	●

10. The two most common types of winds affecting desert or dry areas are tornadoes and dust devils. Although these natural phenomena typically occur in the central United States, no area of the country or world is safe from them, as they are produced by certain weather conditions that are not impossible in any region. Tornadoes are defined as violently rotating columns of air extending from a thunderstorm to the ground. They occur all over the world, but these destructive forces of nature are most commonly found in the United States, east of the Rocky Mountains. This includes states such as Illinois, Oklahoma, Missouri, Arizona, Texas, Kansas (famous for the movie *Wizard of Oz*), and Nebraska. They normally arise during the spring and summer months, which are apt for the appropriate weather conditions. Tornadoes are produced by the clash of cold and pre-existing, warmer humid air. When these two winds meet, the result is a spiraling funnel that is fed by the winds that created it.

The occurrence of these threatening gusts of wind is higher than any other potentially dangerous natural phenomenon in the United States. Estimates show that around 800 tornadoes are reported nationwide per year, with a resulting 80 deaths and 1,500 injuries on average. Of the three types of tornadoes (weak, strong, and violent), 70% of deaths and injuries are caused by those labeled violent. Violent tornadoes can cause tremendous destruction, with wind speeds of 250 mph or more. The paths of damage left behind can extend beyond one mile wide and 50 miles long. In one instance, a fearsome tornado in Oklahoma carried a motel sign 30 miles and ended up dropping it in Arkansas. However, storms of this caliber are rare, except over the southwestern desert areas.

Dust devils, in contrast, are much less fearsome than tornadoes and are much more a part of daily life in certain regions, to the extent that they even acquire nicknames from the locals. They can be defined as rapidly rotating columns of air, usually extending from 100 to 300 feet in height, but capable of reaching heights of 1,000 feet or more. Dust devils develop from extremely hot air hovering flat bare ground that starts to rise, inevitably joined by surrounding air from various currents that flow in to equalize the pressure difference. They propel themselves by sucking up dust and other small debris from the ground, eventually dying off with little evidence left behind. Unlike tornadoes, dust devils occur during calm, hot afternoons with clear skies. Thus, the ideal regions for these small storms are deserts, making the southwestern United States home to over 90% of dust devils.

**Vocabulary** The word  in the passage is closest in meaning to

- |                |               |             |                   |              |
|----------------|---------------|-------------|-------------------|--------------|
| 10 destructive | (A) perennial | (B) ruinous | (C) pervasive     | (D) infirm   |
| caliber        | (A) altitude  | (B) blink   | (C) grade         | (D) ambition |
| acquire        | (A) earn      | (B) inhibit | (C) revolutionize | (D) patch    |



Directions: Select the appropriate phrases from the answer choices and match them to the type of desert winds to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Tornadoes
(A) Propelled by opposing currents of air mixing fueling a spiral motion	•
(B) Produced by ocean currents mixing with desert winds	•
(C) Fueled by the earthly particles it gathers as it moves	
(D) Resulting in extensive damage and casualties	Dust Devils
(E) Consisting of pressurized fronts of cool air that culminate into giant walls of wind	•
(F) Occurring most frequently in the dry, flat and sandy regions of the United States	•
(G) Going out of existence leaving little trace behind	•

11. If there is one characteristic trait that marks the United States' place in the history of world politics, it is its presidential system. Scholars of political science call the United States the "birthplace of presidency," as it was the first nation to create such a government, which has been adopted by a number of countries, including Indonesia, the Philippines, and most of the countries in South America. In its beginnings, the presidential system was developed in reaction to the colonist's repugnance for the English monarchy. Still today, America's president-based government stands in contrast in many ways to the parliamentary cabinet system now used in the United Kingdom.

The overriding difference between the two systems lies in the respective divisions of power. The presidential system is based on the division of two equal branches, the executive and legislative. These branches are separate and neither holds power over the other ensuring stability by preventing abuses and corruption. The executive branch consists of the president, who is elected directly by the people offering the nation's citizens stronger confidence in their government, and his/her cabinet, referred to as advisors or staff. However, the president has the ultimate say in any decision. The legislative branch holds the parliament and is not controlled or influenced in any way by the executive party.

In comparison, any type of parliamentary system is based on the dependency of the executive branch on the legislative branch for support. There is no clear division between the branches and no clear leader. Unlike in the presidential system, the executive branch of a parliamentary government is made up of a cabinet and prime minister (or some other head of government) who equally contribute to the decision-making process. The head of government has the ability to use reserved rights in the case of a crisis, but in general acts as just another member of the cabinet. Then the legislative branch consists of a parliament that is highly influenced by, and requires the approval of, the cabinet in order to pass any laws or policies. Thus, there is little separation of power in such a system as compared to the presidential government.

**Vocabulary** The word  in the passage is closest in meaning to

- |             |                 |                |                  |              |
|-------------|-----------------|----------------|------------------|--------------|
| 11 reaction | (A) aspect      | (B) ingenuity  | (C) sarcasm      | (D) reply    |
| repugnance  | (A) abomination | (B) injunction | (C) trance       | (D) cohesion |
| overriding  | (A) immoral     | (B) clinching  | (C) inauspicious | (D) ailing   |

Directions: Select the appropriate phrases from the answer choices and match them to the type of political systems to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Presidential
(A) The cabinet can utilize special right in emergency situations	●
(B) Decision-making authority shared by all government sects	●
(C) Head of government chosen by the people	●
(D) National finances controlled by the ruling party	
	Parliamentary Cabinet
(E) Laws passed in accordance with cabinet members	
(F) Power split-up between distinct governmental units	●
(G) America as the first country to adopt that sort of system	●



12. European music can be broadly classified based on the era of its composition, and encompasses the variety of general styles that were widespread during each epoch. Baroque is the genre of vocal and instrumental music that slowly developed over the 17<sup>th</sup> century and came to fruition between 1700 and 1750. Its characteristics reflect two major influences, the introduction of the mechanical organ, which became the featured instrument in many compositions, and the rise in the status of the Church. Composers, in particular J.S. Bach, Handel, and Vivaldi upheld religious values of harmony with nature by writing sublime musical pieces that rarely deviated from the main melody. Intricately ornamented pieces were crafted to carefully maintain a uniform emotive response by keeping constant energy from the first note to the last, using extending techniques such as tremolo and pizzicato to emphasize a focus on the depiction of a single auditory expression.

At the same time, some composers augmented the use of voice, by mutating sacred choral structures, and capitalizing on diatonic tonality and imitative counterpoint, to enhance religious storytelling. This allowed vocal soloists to utter comprehensible text over accompanying music, a practice that swiftly grew into opera and was perhaps the most recognizable trend that came out of an age.

The roles of counterpoint and ornamentation diminished following the Baroque period and they were replaced with homophonic texture, the changing of keys, called modulation, resulting in rich dramatic compositions that carried a variety of emotional elements as opposed to one distinct feeling. The term Classical music has been applied to this subsequent era, occurring roughly from 1730 to 1850, developing in common parlance in an attempt to canonize the time between Bach and Beethoven, a significant composer of the late-Classical period. The genre is marked by the disappearance of the organ in favor of the piano. Many pieces highlighted this new type of keyboard in addition to the violin and other stringed instruments, which together with percussion comprise the Classical orchestra. The aggrandizement of instrumentation supplements the great musical complexity of the Classical genre, in which the reliance on musical development, defined as the process by which a musical idea or motif is repeated in different formats, or in an altered form, can be nurtured in an array of phrasing techniques, usually four or eight bars in length. Structurally, the works build up hierarchically from small movements to complete one large performance that can be as short as thirty minutes to as long as three hours in length.

**Vocabulary** The word  in the passage is closest in meaning to

- |                |              |                |                  |                |
|----------------|--------------|----------------|------------------|----------------|
| 12 encompasses | (A) requests | (B) omits      | (C) oppresses    | (D) embraces   |
| status         | (A) bias     | (B) position   | (C) captivity    | (D) compassion |
| aggrandizement | (A) solace   | (B) assumption | (C) augmentation | (D) awe        |

Directions: Select the appropriate phrases from the answer choices and match them to the type of European music to which they relate. **This question is worth 4 points.**

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Baroque
(A) Included many different types of instruments	●
(B) Got a musical motif reiterated in modified formats	●
(C) Was influenced by increased importance of religion	●
(D) Exercised restraint in the application of voice	●
(E) Had a preference for the piano	
	Classical
(F) Composed pieces that seldom digressed from leading tunes	●
(G) Often focused on only one feeling at a time	●
(H) Created numerous musical terms	●
(I) Was the precursor to opera	

정답 p.472

## [1] Age Determination

- 1 Archaeologists and geologists prior to the 1940s had no way to accurately date the objects they found. Then at the University of Chicago, the Manhattan Project discovered how to precisely measure rates of radioactive decay. Even though this new type, absolute dating, is effective in gauging the natural radioactivity of certain elements in given specimens to ascertain their specific chronological age, such as 60 million years before the present, the older method of relative dating which assigns speculative dates to artifacts via such factors as location and association is still in wide-spread use.
- 2 ■ The most common absolute dating tactic, called Radiometric Dating, works out the age of rocks from the deterioration of their radioactive elements. ■ However, rocks also contain small amounts of unstable elements, “parent” isotopes\*, that will break up spontaneously and degenerate into “daughter” isotopes in a process known as radioactive decay. ■ The rate of degeneration is expressed in terms of the parent’s half-life or, the time it takes for one-half of its matter to decay. ■ For example, when igneous or metamorphic rocks crystallize, they may trap within themselves a supply of Uranium-238, which has a half-life of 4.5 billion years. Over that period of time, half of its matter will decay into Lead-206, and in the next 4.5 billion years, half of what is left will convert, leaving one quarter of the original, and so forth. If it contains half amounts of each, it means that one half-life has passed. Scientists can therefore determine age by measuring the ratio of one isotope to the other within a sample.
- 3 ➡ While this method can accurately date rock specimens right to the very beginning of Earth’s life, the chronicling of organic materials such as wood or plant fibers necessitates the slightly different approach of Carbon-14 dating. Its basic concept is that when a plant dies, it no longer acquires carbon, at which point its Carbon-14 isotopes will start to decay. These are counted using an Accelerated Mass Spectrometer, which can analyze samples at 1,000 times the magnification of the Geiger Muller counters used in other radiometric procedures. The drawback of this technique is that it is only applicable with objects younger than 50,000 years, owing to the relatively short half-life of organic isotopes.
- 4 ➡ Before the advent of such devices, archaeologists and geologists were largely limited to using the Relative Dating method. This falls under a sub-discipline of geology known as stratigraphy, which is the science of rock strata, or, layers. Layering occurs in sedimentary rocks as they accumulate through time, meaning that these hold the key to deciphering the succession of historical events in the Earth’s past. For example, geologists have deduced that the oldest rocks in the Grand Canyon are situated at the base of the gorge and are from the late Proterozoic period, while those overlain atop these are from the younger Paleozoic era. This inference is called the “Law of Superposition,” which states that in an undisturbed horizontal sequence of rocks, the oldest rock layers will be on the bottom, with successively younger rocks located above them. This also means that fossils found in the



lowest levels of a sequence of layered rocks will represent the most ancient record of life there. In rare instances, a sequence of layers that has been deposited and compressed to form rock could literally be overturned by the thrusting of the Earth's crust as its continental plates collide, meaning that the youngest rocks in a sequence will be at the bottom. However, this can be identified by the extensive faulting and breaking of rocks that contrast sharply with the same original sequence of rocks present elsewhere in undisturbed order.

Glossary
isotopes : atoms that have the same number of protons and electrons but different numbers of neutrons

- According to the passage, what can be inferred about radioactive decay?
  - It is equal for all radioactive isotopes.
  - The pace at which it occurs is constant.
  - Daughter isotopes undergo decay.
  - Only uranium's rate is currently known.
- Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Rocks are made up of crystals that contain various chemical elements such as iron, magnesium, and silicon which are stable.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

3. The word **trap** in the passage is closest in meaning to
- (A) daunt
  - (B) ensnare
  - (C) verify
  - (D) confine
4. The word **its** in the passage refers to
- (A) matter
  - (B) sample
  - (C) life
  - (D) plant
5. The author mentions objects younger than 50,000 years in paragraph 3 in order to
- (A) explain a strong point of an Accelerated Mass Spectrometer
  - (B) show that the Carbon-14 method is limited in use
  - (C) highlight the importance of organic isotopes
  - (D) suggest the span the Geiger Muller Spectrometer covers

Paragraph 3 is marked with an arrow [➡].

6. The word **succession** in the passage is closest in meaning to
- (A) string
  - (B) disturbance
  - (C) magnitude
  - (D) detriment
7. In paragraph 4, why does the author mention thrusting of the Earth's crust?
- (A) To clarify the mechanism by which newer rocks are created inland
  - (B) To explain the process by which rocks become progressively layered
  - (C) To prove that relative dating is no longer useful in the modern sciences
  - (D) To illustrate a case in which the Law of Superposition is not applicable

Paragraph 4 is marked with an arrow [➡].

8. The word **sharply** in the passage is closest in meaning to
- (A) oddly
  - (B) carefully
  - (C) markedly
  - (D) mostly

9. Directions: Select the appropriate phrases from the answer choices and match them to the type of dating they represent. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Absolute Dating
(A) Takes other areas into consideration in case of geological changes	●
(B) Eliminates the need for manual excavation of specimens	●
(C) Observes rocks in layers to determine the order of historical incidents	●
(D) Is able to ascribe precise dates to artifacts	
(E) Estimates the age of vegetation using Carbon-14 isotopes	
	Relative Dating
(F) Applies chemical substances to samples to disclose their main ingredients	●
(G) Measures the proportion of parent to daughter elements of rocks	●

정답 p.479



## [2] Mesopotamian and Egyptian Civilizations

- 1 ➡ In 4000 B.C., hunter-gatherers living along the floodplains between the Tigris and Euphrates Rivers, known as the Fertile Crescent, ceased their nomadic ways and settled into sedentary agrarian settlements. A steady supply of food triggered a period of population growth that made coordination necessary, giving birth to the concept of large-scale political organization in the form of the Mesopotamian empires. Four hundred years later, a similar shift occurred along the banks of the Nile River as Egypt passed rapidly from a state of Neolithic\* culture with a complex tribal character into a well-organized monarchy.
- 2 Although the two cultures, together known as the Cradle of Civilization, emerged almost simultaneously, there were some fundamental differences between them that were largely due to unique geographical compositions. Egypt was entirely arid save for a fertile swath running through its center that was nourished by the Nile River. Insulated on three sides by desert and on the fourth by the Mediterranean Sea, a unanimous cultural identity developed that was unadulterated by outside influences and wholly subservient to the life-giving properties of the Nile, which formed the symbolic basis of its political system. On the other hand, Mesopotamian civilization was scattered over a wider expanse that allowed independent urban centers to enroot in various locations. Because life was constantly plagued by disastrous and unpredictable floods, metropolises were often forced to invade each other in times of hardship. The result was a tempestuous progression through numerous periods of upheavals that made unity and cohesion tenuous.
- 3 ➡ Numerous groups had control over the Fertile Crescent at one time or another during the course of the centuries. Despite the repeated rise and fall of the empires, culture of the valley remained basically the same. The first major empire was that of the Sumerian, whose control over the area began in approximately 3000 B.C. Their kings, while important, were not considered divine, but rather served as the liaison between the people and the gods. ■<sup>6</sup>One of their main duties was to determine when the best time for planting was. ■While religion was important to the Mesopotamians, it did not infiltrate every aspect of their lives as it did in Egypt. ■Because of this, there were strict laws which clearly delineated the rules and responsibilities of members of the society and the most famous of these is the Code of Hammurabi. ■From this code and other remains, archaeologists have found that Mesopotamian society was highly structured with distinct social classes. Individuals could own land and this contributed to the rise of a stronger business class which acted as a check to the king's power.
- 4 In sharp contrast to the unstable evolution of Mesopotamia, ancient Egypt was consistently stable throughout the bulk of its empire. Egypt was first unified in 3100 B.C. and remained stable until it was conquered in 525 B.C. by Persia. This great period of stability in both the environment and the government led to its central idea that the universe functioned with regularity and predictability, just like the Nile with its remarkably consistent cycle of floods. ■<sup>9</sup>In the moral sphere, humankind was obligated to subdue its desires and actions so that law and order could be maintained and society could continue to prosper. ■The monarchical Pharaoh was viewed as a divine incarnation of Horus, the son of the god of the

underworld and thus his power was absolute. ■ As the apex of the society, he monopolized all land, industry, and commerce, so the economy was heavily dependent upon him and there was overwhelming state control in all aspects of Egyptian life. ■

Glossary
Neolithic: relating to the later part of the Stone Age, when people had started farming but still used stone for making weapons and tools

1. According to paragraph 1, what does the author imply resulted when itinerant people began to settle in one place?
  - (A) They didn't have to hunt any longer due to a plenty of food supplies.
  - (B) Religion based upon a respect for nature was born immediately.
  - (C) The need for a political system to manage a swelling population arose.
  - (D) They had to develop methods to deal with overflows from the rivers.

Paragraph 1 is marked with an arrow [➡].

2. The word *fundamental* in the passage is closest in meaning to
  - (A) superficial
  - (B) essential
  - (C) insolent
  - (D) bigoted
3. The word *unanimous* in the passage is closest in meaning to
  - (A) united
  - (B) usual
  - (C) utilitarian
  - (D) unique
4. The word *upheavals* in the passage is closest in meaning to
  - (A) impulses
  - (B) factions
  - (C) tributes
  - (D) convulsions

5. The word **Their** in the passage refers to

- (A) groups
- (B) empires
- (C) the Sumerian
- (D) gods

6. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**This need spurred the development of cuneiform, the world's first writing system, to record the changes in the wildly unpredictable floodplains and manage the resources.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

7. In paragraph 3, why does the author mention the Code of Hammurabi?

- (A) To show how the king's influence was checked by a business class
- (B) To give an example of the laws by which the Mesopotamians lived
- (C) To define the rights that individuals had in early Mesopotamia
- (D) To contrast the laws in Mesopotamia to those in ancient Egypt

Paragraph 3 is marked with an arrow [➡].

8. The word **apex** in the passage is closest in meaning to

- (A) advocate
- (B) bandit
- (C) summit
- (D) plurality

9. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Because of this security, Egyptians were much more optimistic and conservative than the Mesopotamians.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.



10. Directions: Select the appropriate phrases from the answer choices and match them to the type of civilization to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Mesopotamia
(A) A king's power lessened as his country became more secularized.	●
(B) Classes who had landownership and high economic strength were present.	●
(C) Religion had an influence on all parts of individual lives.	Egypt
(D) An all-powerful king controlled every sphere of a society.	●
(E) Each metropolis in a diversity of areas passed through constant turmoil.	●
(F) An individual who can communicate with the gods was considered the most sacred.	●
(G) The belief that the cosmos is steady and consistent spread.	

정답 p.480

### [3] Parasitic Plants

- 1 All organisms require a source of energy in order to grow, reproduce, and carry on the daily functions necessary for life. The usual concept of the food chain has the sun at the top giving energy to plants, which are consumed by other organisms that are in turn devoured themselves, and so on. Although this is certainly true for the bulk of species, there are some plants that – unable to use the sun efficiently – must leech onto other greenery like vampires, in the sense that they use a root system to ‘bite’ prey and ‘suck’ out its life-sustaining nutrients.
- 2 All parasitic plants have a unique adaptation – a modified root called a haustorium – that allows them to fasten to other flora in order to extract food or water. This is an important distinction, as there are other plants called epiphytes, which also bind to host plants, but lacking haustoria, cannot derive any water or nutrients from them and so are not parasitic. Those truly parasitic plants are categorized into two groups, depending on where their haustorium penetrates the host. The first, hemiparasites, tacks on to the host’s root-to-stem water-transporting xylem, while the second, holoparasites, affixes to the host’s nutrient-distributing phloem.
- 3 ➡ As hemiparasites extort only water and dissolved minerals from their victims, they must produce their own carbohydrates via photosynthesis. This process needs chlorophyll, giving these bandits a green hue that makes them visually indistinguishable from ordinary foliage. Botanists must therefore identify them by closely examining their root system, which features tiny, hair-like projections that extend into a targeted host either at the stem or root, depending on the genus of hemiparasite. These do not actually penetrate into the tissues of the victim, but rather latch on to its membranes, as their large surface areas allow for a more effective means of liquid transfer.
- 4 This stratagem is neatly exemplified by the mistletoe, as its red and white berries are eaten by birds, passed through their digestive tracts, and excreted onto tree branches. After these sticky seeds are deposited, they begin to grow haustoria, which penetrate into the bark of the tree and attach to the xylem. They then use the requisite water from the tree to start their growth. In this manner, mistletoe is able to grow on a wide variety of trees, and although it can eventually prove fatal if infestation is heavy, damage more commonly results only in growth reduction of the host.
- 5 This is not the case with the more malevolent holoparasites, as they wrest almost all of their carbohydrates from their targets by unleashing an extensive network of haustoria throughout their phloem, often rendering their victims withered and on the brink of demise. Because holoparasites do not need photosynthesis for any kind of energy production, they do not produce chlorophyll, and therefore feature leaf and stem systems in a variety of colors that, like all parasitic plants, can produce a great diversity of flowers, such as the magnificent Rafflesia, the world’s largest.
- 6 This behemoth extracts its entire requirement from its host, the Tetrastigma vine. Provided that the victim is not weakened by the loss to the point of death – a rare overindulgence –

there seems to be no limit to the amount the *Rafflesia* may extract, and therefore no limit to the size of the flower it ultimately blooms. When it finally bursts through the bark of its ravaged prey, it shows an extravagance on a truly monumental scale, often spanning over 1 meter in diameter. This flower's odor, likened to that of a rotting corpse, attracts flies and beetles from miles away, which swarm forth to pollinate the flower, thus helping to produce its four million odd seeds. These are spread by animals onto other vines, where the cycle continues as new plants attach to other vines and grow in stealth until ready to give rise to more mammoth blossoms, ultimately leaving in their wakes the withered husks of exhausted *Tetrastigas*.

- 7 The degree of pathogenicity varies greatly among parasitic plants from the relatively benign effects of the mistletoe to the more severe effects of the *Rafflesia*. However, both hemiparasites and holoparasites follow the general rule in biology that a good parasite does not kill its host, at least not until it successfully reproduces.

1. The word **distinction** in the passage is closest in meaning to
  - (A) disparity
  - (B) descent
  - (C) discouragement
  - (D) dispute
2. According to the passage, why does the author mention epiphytes?
  - (A) To describe a different type of parasitic plant
  - (B) To suggest various ways plants obtain nutrients
  - (C) To clarify the definition of a parasitic plant
  - (D) To emphasize the role of the haustorium
3. According to the passage, the classification of parasitic plants as "hemiparasites" or "holoparasites" is determined by
  - (A) the site of attachment of the modified root to the host
  - (B) the rate at which they take nutrients from the host
  - (C) the type of species which they prey upon
  - (D) whether or not they have a parasitic haustorium



4. According to paragraph 3, hemiparasites are not visually distinguished from common plants because
- (A) they have the same shape of roots
  - (B) they have a same shade due to chlorophyll
  - (C) they have small projections at the stem
  - (D) they send forth the same fragrance

Paragraph 3 is marked with an arrow [➡].

5. The word *fatal* in the passage is closest in meaning to
- (A) benevolent
  - (B) henpecked
  - (C) mortal
  - (D) ruling
6. The word *that* in the passage refers to
- (A) extravagance
  - (B) diameter
  - (C) flower
  - (D) odor
7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The Tetrastigma vines are infested with flies and beetles which give the Rafflesia an opportunity to grow into new blossoms.
  - (B) New growths of the Rafflesia occur as insects bring the seeds with them and affect other Tetrastigma vines.
  - (C) The Rafflesia grows in cycles which allow animals to spread the seeds to other Tetrastigmas.
  - (D) The Tetrastigmas have yet to make blossoms which will attract many insects because their seeds are not spread.
8. The word *severe* in the passage is closest in meaning to
- (A) graceful
  - (B) savage
  - (C) clement
  - (D) indistinct

9. Directions: Select the appropriate phrases from the answer choices and match them to the type of plants to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Hemiparasites
(A) Are not able to blossom for reproductive purposes	●
(B) Stick to the victim's membranes with a broad surface area	●
(C) Display stems and leaves in diverse colors	●
(D) Attach to the nutrient transport cells in the host	●
(E) Photosynthesize for generating their own carbohydrates	Holoparasites
(F) Always kill the host by limiting nutrient supply	●
(G) Merely extract water and liquefied minerals from the victim	●

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#### [4] Development of State

- 1 A critical problem in anthropology is the transformation from egalitarian to state societies, or the conversion of bands or tribes to chiefdoms and eventually, hierarchically-organized states. With community management as the primary ambition, humans seem to organize themselves in a variety of ways, some facile in nature and others multifarious and complicated.
- 2 The simplest form of human society is an egalitarian structure in which kinship ties are crucial to community cohesion. A band society is usually no more complex than a congregation of extended families, having little need for formal regulations or leadership because the communities are small enough that habits, customs, and domestic power are shared equally. Should an individual show unusual charismatic qualities, such as a great sensitivity to public opinion, he or she may take on an intermittent leadership role, but this position is voluntary, and rarely permanent and will dissolve after the death of the individual. In a larger egalitarian society, a tribe, several families come together clearly bounded by traditional values and belief systems. Primordial ties remain privileged and norms are situated among familial relationships. When disputes break out, they are mediated by a group of elders with many years of experience, who often offer advice when major decisions must be made that will affect the entire group. At times, disagreements may be settled with a duel, and if underlying rules of the community are broken, the violator will be punished by the clans, reinforcing a homogeneous, parochial and stable ideological environment.
- 3 These deep-rooted customs are threatened in times of scarcity of food and members of a band or tribe seek out other egalitarian societies to form inter-marriage alliances that will help both populations manage unpredictable resources. Mingling, however, can be detrimental to community cohesion, forcing aggregates to cope with diverse and often conflicting life philosophies. If discord between kin groups is unavoidable, the only way to circumvent war is to establish an unbiased, institutionalized leader or chief who can settle conflicts and invoke appropriate retribution for crimes.
- 4 From this arrangement, a more complex framework develops, led by a centralized leadership where power can be exercised over the whole population through a hierarchical structure and a monopoly of command. Called chiefdoms, these societies are generally composed of subsidiary communities surrounding one main population and are controlled by one office positioned in that primary location. Power is usually administered by a single kin group or an individual supported by a theology that situates the head of the society in a dogmatic role, one that is passed down to a child through a supernatural authority. Under a patriarchal scheme, this usually presents as a king transmitting his power by primogeniture, meaning to the first-born son.
- 5 Chiefdoms can essentially be characterized by universal inequality between the elite and the common people. The power imbalance is validated through a coordination of economic resources, wherein lower class peasants work in agriculture and trade to provide food and other goods for the higher class, who in turn reciprocate by fulfilling certain social roles



such as mediators. In its most pronounced version, chiefdom leadership will not only forestall external invaders but also intervene in domestic disputes by imposing a series of punitive laws. Constant threat of force ultimately sets up political control over the peasants, but often leads to friction between the two stratified groups of people. For this reason, chiefdoms are fairly unstable and predisposed to a pattern of degeneration and renewal. Animosity between the classes may be alleviated through a judicial system that provides third-party representation for the rights of each, but without a fully implemented political system with visible offices bound by territorial boundaries and differentiated by strict codes, the chiefdom will not develop into a more progressive society.

- 6 ➔ To become an advanced state-run civilization would require further augmentation of institutions, fulfilled by a bureaucratic apparatus. As the population increases and higher agricultural yields are achieved, more labor energy and finances are funneled into government architecture to pay for dedicated positions to support the entrenched centralized leadership. National identity within this highly intricate composition develops over a long period of time, and is frequently reinforced through public display of power.

1. The word facile in the passage is closest in meaning to
  - (A) feudal
  - (B) simple
  - (C) ripe
  - (D) vile
2. The word congregation in the passage is closest in meaning to
  - (A) burden
  - (B) collection
  - (C) heed
  - (D) caption
3. The word intermittent in the passage is closest in meaning to
  - (A) unrivaled
  - (B) analogous
  - (C) occasional
  - (D) anonymous
4. The word they in the passage refers to
  - (A) ties
  - (B) norms
  - (C) relationships
  - (D) disputes

5. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Conflicts are sometimes solved by combat, and in order to maintain the status quo, a transgressor will be disciplined by the community.
  - (B) While sometimes grievances can be settled through duels, more serious cases are decided by the group as a whole.
  - (C) For very serious offenses, the perpetrator will undergo severe sanctions and be excluded from the community.
  - (D) Breaking the rules of the group is considered one of the most serious infractions and often will lead to rigorous punishments.
6. The word *one* in the passage refers to
- (A) individual
  - (B) theology
  - (C) society
  - (D) role
7. It can be inferred from the passage that the primary difference between the leaders of chiefdoms and egalitarian societies is
- (A) the manner in which power is passed to the successive generations
  - (B) their abilities to appoint qualified individuals to public officials
  - (C) the number of people with whom the leader must share power
  - (D) the admiration by the populace over whom they control
8. The phrase *intervene in* in the passage is closest in meaning to
- (A) betray
  - (B) predicate
  - (C) accuse
  - (D) mediate
9. In paragraph 6, the author mentions advanced state-run civilization in order to
- (A) contrast its institutions to those of tribes
  - (B) show the next stage in the evolution of state
  - (C) explain the benefits of centralized power
  - (D) suggest the demerits of previous social systems

Paragraph 6 is marked with an arrow [➡].

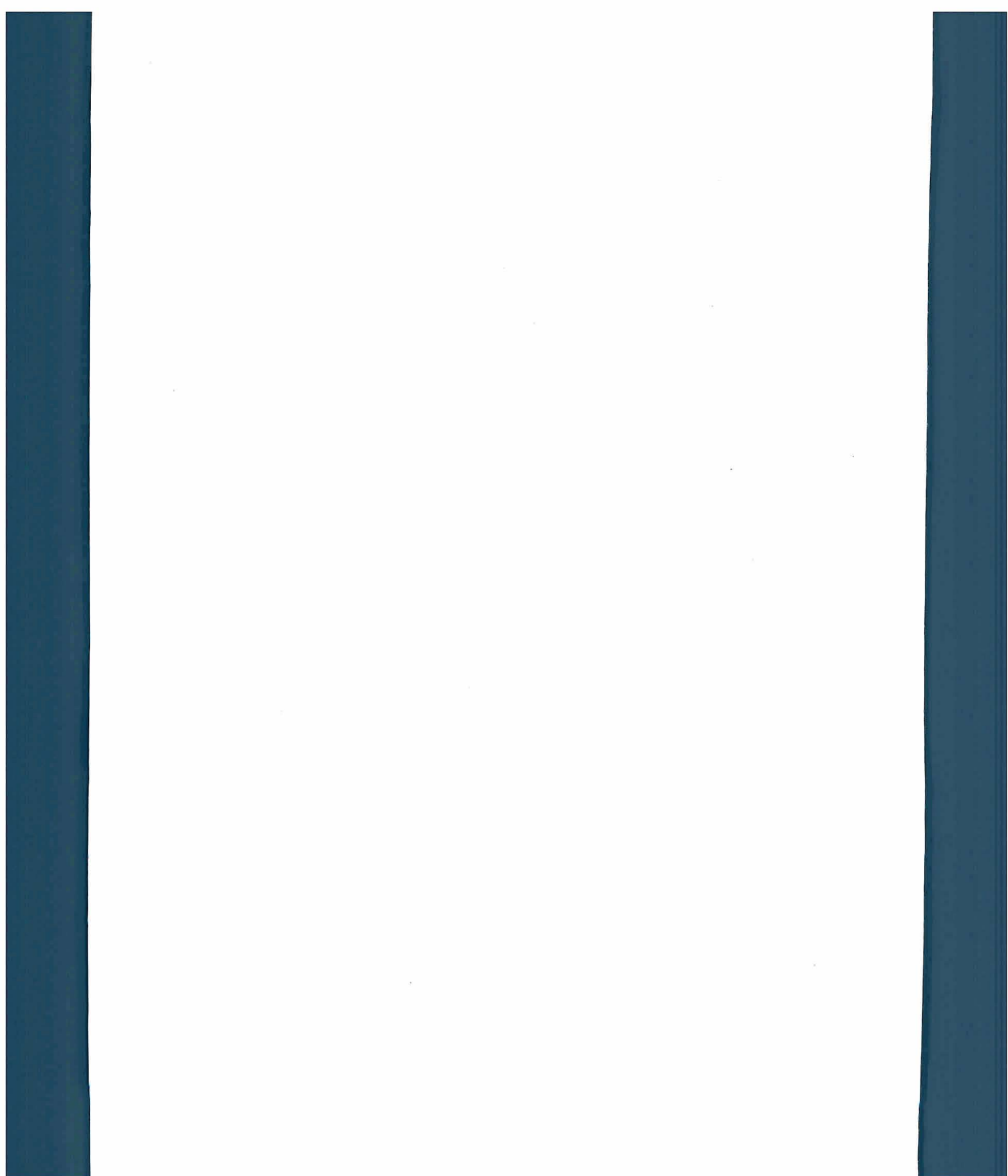
10. Directions: Select the appropriate phrases from the answer choices and match them to the type of civilization they represent. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Chiefdoms
(A) Harmony in communities is maintained by conventional norms.	●
(B) Future rulers are chosen by their hereditary relationships.	●
(C) Funds and labor are diverted from agricultural endeavors to bureaucratic work.	●
(D) Socioeconomic differences can be a major source of friction.	
	Egalitarian Societies
(E) A group of elders takes on a leadership role.	●
(F) An offender against the community rules is punished to appease the victims.	
(G) Judiciary systems offer arbitration between social strata.	●

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Hackers TOEFL Reading

# ACTUAL TEST

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## [1] Fuel

- 1 ➡ Throughout Medieval Europe, wood was exploited as the primary source of fuel and as an essential building material. The brewing, glass-making, and lime-burning industries all depended on firewood for fuel, as did the household hearth. Mineral ores, such as iron and copper, had to be smelted with charcoal, and timbers went into the construction of everything from castles and cathedrals to food crates and barrels for storing food and drink.
- 2 ➡ As growing populations, particularly in large cities, escalated the use of and requirement for wood, rapid deforestation had spread throughout the European continent by the 1600s. At the height of Elizabethan England, as trade and industry flourished, an increasingly wealthy population imposed such a demand for wood that the country's supply could no longer meet it, causing timber prices to rise dramatically throughout the ensuing decades. In response to growing costs, the court of Elizabeth I enacted laws to restrict the use of timber as fuel, with particular concern for the ever diminishing reserve of lumber required to build Her Majesty's naval fleets in times of war.
- 3 In order to preserve the remaining forests of England, the switch to coal as fuel was imminent, and the British authorities formulated measures to promote the substitution of coal for wood, despite protests about its black smoke and sulfurous fumes. Although wood remained the more desirable choice for burning, with the climbing prices of timber and the challenges of its transport over long distances, the exploitation of coal became the more economically – and logistically – sound, particularly for the purposes of larger cities where surrounding woodlands had been all but cleared away. Economic advantages rapidly overtook concerns for rising levels of pollution as coal proved to be the more efficient fuel, containing higher carbon content than wood, and thus London was to remain under a cloud of coal dust and burning fumes for the next 400 years.
- 4 ➡ As England's coal production increased, so did the difficulties of extracting a more desirable type of coal from deep within the earth. ■ A softer "brown coal" called lignite could be mined with relative ease, but contained numerous impurities and did not produce as much heat as the harder, denser types of "black coal," bituminous and anthracite, that were tapped from larger, and more subterranean seams. ■ New problems arose with working far beneath the earth's surface, including a lack of proper ventilation for miners, and an increased likelihood of tunnels and mining galleries collapsing, as thick supporting columns comprised of the hardest black coal were chiseled away because they were considered too valuable to remain untapped. ■ Added to this were cases of uncontrolled and unwanted explosions, along with constant flooding as underground water reservoirs were accidentally struck by miners tunneling into the depths of mine shafts in search of 'black gold.' ■
- 5 Thomas Newcomen's 1705 invention of the steam engine, which ran on cheap fuel – coke (coal fuel) – allowed for water to be efficiently pumped out of coal mines, greatly increasing the industry's production. Due to improved drainage, mining productivity in the early 1700s accelerated to the extent where coal was fuelling the preparation of alum, the processes of glass-making, lime-burning, and salt-making, the use of iron furnaces, and the reverberatory smelting of non-ferrous metals. It was not until seventy years later James Watts improved on the steam engine's design to generate power. This technological milestone enabled coal to be burned to



drive machinery and eventually led to the revitalization of the iron industry. The change in energy source from wood to "black coal" and in the preferred construction material from wood to iron, contributed to ushering England into the Industrial Revolution, which would eventually transform the Western world.

1. All of the following are mentioned in paragraph 1 as a medieval use of wood EXCEPT
- (A) to refine metals
  - (B) to produce heat
  - (C) to purify liquids
  - (D) to construct buildings

Paragraph 1 is marked with an arrow [➡].

2. The word height in the passage is closest in meaning to
- (A) nadir
  - (B) crest
  - (C) flank
  - (D) hub
3. According to paragraph 2, the main reason England restricted the use of wood as fuel was
- (A) to bring down the price for the sake of the general public
  - (B) to ensure enough wood was available to make ships
  - (C) to protect the area near cities which was deforested
  - (D) to aid the construction of a wooden building by affluent citizens

Paragraph 2 is marked with an arrow [➡].

4. The word imminent in the passage is closest in meaning to
- (A) impending
  - (B) strong
  - (C) preeminent
  - (D) decent
5. It can be inferred from the passage that when coal was first introduced in Britain
- (A) people immediately saw its economic benefits over wood
  - (B) there was significant concern for mining industry
  - (C) it was used to improve the conditions of urban areas
  - (D) it was not well received by many for its emissions

6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The mounting prices of wood made it much more valuable since it was difficult to get it in urban areas.
  - (B) While wood was preferable as fuel, coal was more feasible due to the cost and availability.
  - (C) The difficulty associated with transporting wood long distances made coal the more practical fuel.
  - (D) The use of coal in place of wood took place in the big cities where the surrounding areas lacked wood.
7. The word *overtook* in the passage is closest in meaning to
- (A) conjured
  - (B) abused
  - (C) eclipsed
  - (D) safeguarded
8. Which of the following is NOT mentioned in paragraph 4 as a problem when working underground?
- (A) A shortage in a change of air
  - (B) A possibility of a breakdown of drifts
  - (C) An unexpected blasting
  - (D) A scarcity of potable water
- Paragraph 4 is marked with an arrow [➡].
9. The word *they* in the passage refers to
- (A) miners
  - (B) tunnels
  - (C) galleries
  - (D) columns
10. The word *efficiently* in the passage is closest in meaning to
- (A) annually
  - (B) closely
  - (C) successfully
  - (D) barely
11. According to the passage, what can be inferred about the flooding in subterranean mines?
- (A) It increased the production cost.
  - (B) It halted the exploitation of coal mines.
  - (C) It corroded the mineral resources.
  - (D) It was solved by the steam engine.

12. The author mentions the Industrial Revolution in the passage in order to
- (A) provide an example of the influence of James Watt
  - (B) give a reason for the predominance of England in the world
  - (C) describe the economic revival of the iron industry
  - (D) show the effect of the conversion to coal on England
13. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**The fear of sudden and devastating deluge had surpassed all other mining perils to become the biggest quandary facing English miners of the sixteenth and seventeenth centuries.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**The switch from wood to coal led England on the path to greater industrialization.**

- 
- 
-

Answer Choices

- |  |   |
|--|---|
| (A) James Watt's steam engine offered a lot of advantages over Newcomen's.     | (D) Decreasing supplies of wood resulted in economic pressure to use coal instead.                          |
| (B) Coal mining was a dangerous enterprise triggering many problems to miners. | (E) As technology improved and allowed for greater mining, the stage was set for the Industrial Revolution. |
| (C) London was severely polluted by the constant use of coal.                  | (F) Wood was the chief source of constructing residence.  |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

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## [2] Dinosaur Extinction

- 1 One of the greatest mysteries in science is the inexplicable disappearance of the dinosaurs, which dominated the earth's land and seas for over 200 million years. Paleontologists have excavated fossils as old as the Triassic Period and as recent as the Cretaceous Period, ending about 65 million years ago. What is puzzling is the near complete absence of petrified bones in the sedimentary layers dating back to the end of the Cretaceous and following into the Tertiary, a distinct stratum of deposits known as the transitional zone, or, K-T Boundary.
- 2 ➡ Scientists generally agree on several assumptions about the extinction of the dinosaurs that are supported by archaeological evidence. One of the assumptions involves the thin clay layer with a high concentration of iridium near the K-T Boundary. ■ Iridium is an extremely rare element found in the earth's crust, suggesting a direct correlation between its presence and massive extinction. ■ Likewise, scientists acknowledge observations of abrupt transitions of oceanic rock formations and a severe drop in the sea level detected in sediments from the late Cretaceous Period. ■ This gives substantial verification to the presumption that the planet underwent extensive climate changes from warm and mild to cooler and more varied during this time as well. ■
- 3 ➡ In an attempt to link these archaeological discoveries with mass extinction, paleontologists have offered three main theories to explain how over 60% of the earth's species could vanish. One hypothesis is the intrinsic gradualist theory, which has the source of the extinction coming from the earth over a long period of time. Basically, proponents look at plate tectonics to unravel the enigma, whereby shifting plates under the crust increased volcanic activity, which in turn spewed more ejecta onto the surface. In addition, acid rain due to eruptions would damage fauna, leading to a breakdown of the natural food chain. Although these lava bursts would justify the high levels of iridium near the K-T Boundary, the theory as a whole does not adequately explain the existence of such a distinct zone because a change proceeding very slowly by degrees would not prompt an abrupt cessation of fossils, but instead a gradual decline in available samples.
- 4 ➡ The extrinsic catastrophic theory postulates the great disappearance to be the consequence of an impact from an extraterrestrial object. Since asteroids and comets have high levels of iridium, this would elucidate its existence in the K-T Boundary, and the dust and debris kicked up by such a collision could also explicate the changes to the world's weather. Proponents of the catastrophic theory contend that a major impact would cause huge hurricanes and fires that would wipe out many species not killed by the initial collision. Then the dust covering the sky would limit the regrowth of the plants, resulting in a similar chain of events proposed by the gradualists, albeit much quicker. Although a crater large enough to cause a devastating level of destruction has been located at Chicxulub on the Yucatan Peninsula of Mexico, opponents to this theory have used new computer modeling of the impact to show its failure to eject the necessary amount of dust that the hypothesis requires to inhibit the growth of plants.
- 5 Plant growth is an integral component to the most recent theory of extinction, involving an ancient Ice Age that would have comprised small changes in the global weather system, perhaps leading to ruinous effects on environmental conditions. Thick collections of compacted snow and ice

formed during a period when the planet shifted orbit away from the sun and the amount of solar radiation was diminished. Over many thousands of years, frozen rivers reduced fresh water supplies and killed off various plant species. Without grass and other foliage, herbivores starved to death and thus carnivores failed to have enough meat to hunt. Yet, although the Ice Age could explain a problem in the natural food chain, it fails to account for the iridium layer and the deaths of many marine species that would have been able to survive in the altered atmosphere.

- 6 The question of how and why some species survived and others did not is a major flaw in all extinction theories and further deliberation is hindered by the lack of knowledge about the physiology of the dinosaurs. Without accurate information on how a dinosaur's body functions, any hypothesis proposed has to make some possibly flawed conjectures as to how dinosaurs would react. In the end, the cause of the dinosaurs extinction may be impossible to know, but the study of the event itself gives insight into mass extinctions and may help scientists prevent the next.

1. The word **inexplicable** in the passage is closest in meaning to
  - (A) impervious
  - (B) unexplainable
  - (C) unbridled
  - (D) inconsequential
2. According to paragraph 2, the author states that the high enrichment of iridium
  - (A) is probably the main cause of the K-T boundary
  - (B) has yet to be accepted by most scientists as valid
  - (C) is directly related to the disappearance of the dinosaurs
  - (D) is unusual since iridium is found deeper in the crust

Paragraph 2 is marked with an arrow [➡].

3. The word **abrupt** in the passage is closest in meaning to
  - (A) avid
  - (B) chaotic
  - (C) sharp
  - (D) ubiquitous
4. The word **unravel** in the passage is closest in meaning to
  - (A) figure out
  - (B) wrangle
  - (C) cede
  - (D) bring about

5. It can be inferred from paragraph 3 that volcanic ejecta

- (A) increased global temperatures
- (B) gave rise to the shifting of plates
- (C) resulted from sudden acid rain
- (D) contained a large volume of iridium

Paragraph 3 is marked with an arrow [➡].

6. The word *its* in the passage refers to

- (A) consequence
- (B) impact
- (C) object
- (D) iridium

7. In paragraph 4, why does the author mention new computer modeling?

- (A) To rebut the hypothesis that dust resulting from the impact impeded the plant growth
- (B) To explain the origin of the iridium found in the K-T Boundary
- (C) To show that physical proof exists for the extrinsic catastrophe scenario
- (D) To give a possible explanation of the occurrence of hurricanes and fires

Paragraph 4 is marked with an arrow [➡].

8. According to the passage, the Ice Age was caused by

- (A) the ejection of the dust and debris
- (B) clusters of concentrated snow and ice
- (C) the freezing of rivers and fresh water
- (D) a change in the earth's path around the sun

9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

- (A) The Ice Age theory has yet to explain the iridium layer and numerous species in water as well as the problem in the food chain.
- (B) While the Ice Age scenario has been supported by archaeological evidence of a food chain problem, the fact that marine life and iridium still exist weakens it.
- (C) The Ice Age theory doesn't elucidate the extermination of the animals that lived in water or iridium despite the ability to explicate the collapse of the food chain.
- (D) The Ice Age theory posits that the demise of marine animals and the creation of the iridium layer are responsible for the destruction of the food chain.



10. The word **flaw** in the passage is closest in meaning to

- (A) shortcoming
- (B) parody
- (C) proposition
- (D) malady

11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**What is unknown is whether these alterations are the cause or an effect of whatever extinguished dinosaurs and many of their contemporary species.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Several theories have been proposed to account for the extinction of dinosaurs.**

Answer Choices

- |   |  |
|---|--|
| (A) Rock in the ocean formed in different ways and the sea level dropped severely.                        | (D) A series of tectonic events could have progressively made surface conditions less suitable for life. |
| (B) Collision from a foreign object had the possibility to cause great alterations in the global weather. | (E) A massive crater in Mexico has been discovered by the newest technology.                             |
| (C) It is difficult to figure out the dinosaur's physical functions in modern times.                      | (F) Small shifts in the earth's orbit could have major climatic influences on the environment.           |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.486

### [3] Hellenistic Age

- 1 Under the first international empire of the Western world, Alexander the Great united ancient independently run city-states, conquering India to the east and Egypt to the west, and brought most of Asia Minor into the fold of Greek hegemony setting the stage for the Hellenistic Age, or period of Greek influence over non-Greek peoples. From his coronation as king in 336 B.C., Alexander spent his time in the field leading his troops and after capturing the Persian city of Babylon, he made it his base granting numerous satraps, bureaucratic arms of the complex government system, the right to rule over minor outlying areas. Because of his military prowess, he reigned undefeated until his death in 323 B.C. With no clear heir, a war broke out among his generals, resulting in the division of the empire into three independent kingdoms, which remained disjointed for about 300 years until their surrender to Rome.
- 2 ■ In Macedonia, Cassander emerged as the literary, yet violent king of the northernmost section. ■ Seleucus I, a general who had accompanied Alexander to India, swiftly won over the people of Syria, establishing the Seleucid dynasty based in Babylon. ■ Macedonia and Syria entered into a cooperative relationship, sharing technology, intellectual innovations and frequently banding together to defend themselves from hostile neighbors. ■ In Egypt, former bodyguard and trusted companion, Ptolemy I "Soter" (from the Egyptian word, 'savior') stepped up to become divine leader of the people. Geographically isolated by the Mediterranean and Red seas, Egypt easily fended off invasions without the help of the other kingdoms.
- 3 ➡ Preoccupied with maintaining territorial boundaries, Macedonia and Syria, nevertheless politically strong, were not able to pay as much attention to building solid economic structures as Egypt. Endowed with geographical advantages, Ptolemy I situated the head of state in the newly founded Alexandria, a vital shipping port sitting at the mouth of the fertile Nile River and along the coast of the Mediterranean Sea. All economic and cultural trade was funneled through the capital city and because of high taxation on all imports and exports, the government rapidly increased its wealth. One major source of revenue was an early form of paper, papyrus. As a means to document historical records and religious writing, it was an internationally popular commodity and highly valued by kings pursuing intellectual superiority. Because the papyrus plant was endemic to the Nile valley, Alexandrian merchants accumulated a fortune by monopolizing international traffic.
- 4 ➡ Each kingdom, pursuant to its desire for culturally enriched societies, laid the foundation for capital city centers of culture and intellect, funded in no small terms by voluntary and tax donations from the affluent upper class who accumulated wealth through trade. Under the Seleucid empire, the Syrian capital Antioch had a reputation for producing arts and letters, particularly theatrical in nature. In Cassandreia, the Macedonian capital, the reigning king who was once part of an elite group of students under the tutelage of Aristotle took pride in the reaffirmation of his region's ties to great philosophical thinkers. Nobles often commissioned sculptures for their gardens, or lent monetary support to writers, who in turn crafted poems for the pleasure of their patrons.
- 5 No kingdom could match the incredible artistic, scientific, and literary culture of Egypt, encouraged by its initial king and his two successors. Eliciting scholarly recognition, Ptolemy I, also a former pupil of Aristotle, wrote a history of Alexander's campaigns. His son and successor,



Ptolemy II, was renowned for his generous patronage of the arts and circumspect and enlightened, favoring diplomatic negotiations to war. To stave off annexation by neighboring adversaries he stimulated intellectual advancements and cultural prestige, particularly in Alexandria, to strengthen the nation's independent identity. As the cornerstone of society, the pursuit of knowledge was continued by Ptolemy III who put up the first of three Rosetta Stones, which would centuries later become instrumental for archeologists attempting to translate Egyptian hieroglyphics.

- 6 Positioning the capital as the prevailing cultural center, the Ptolemaic dynasty hoped to entice the best scholars to back its leadership. In order to provide suitable conditions for exceptional academic study, they founded the Musaeum or Temple of the Muses, a central repository for knowledge that could house scrolls and books on a variety of topics. Travelers to the city were required to deposit one copy of all their documents to a local scribe, and in following years, the collection would grow into the Royal Library of Alexandria, the largest in the world at that time and the first of its kind to be managed outside of a monastery. As the model for all modern secular libraries, the Library offered a selection of manuscripts on every topic, from mathematics to fine art, and therefore, visiting scholars discovered a comprehensive academic resource for any or all areas of interest. Appointed lecturers, such as the mathematical prodigy Euclid, received high salaries for their services and were further privileged by promises of reduced taxation. Supplementary to this, instructors were supplied with sufficient quantities of papyrus to archive research notes as required. The special advantages enjoyed by Alexandrian academics stimulated an influx of liberal, culturally significant learned men, spurring a sophisticated national identity.

1. The word **surrender** in the passage is closest in meaning to
  - (A) rapture
  - (B) defection
  - (C) overthrow
  - (D) submission
2. The word **hostile** in the passage is closest in meaning to
  - (A) bizarre
  - (B) inimical
  - (C) aesthetic
  - (D) explicit
3. Which of the following is NOT stated in paragraph 3?
  - (A) Egyptian government amassed a fortune by customs revenue.
  - (B) Papyrus was grown throughout Europe.
  - (C) Alexandria was designated as a capital of Egypt.
  - (D) Papyrus enjoyed popularity in many countries.

Paragraph 3 is marked with an arrow [➡].



4. The word **commodity** in the passage is closest in meaning to
- (A) attention
  - (B) locale
  - (C) item
  - (D) assembly
5. According to paragraph 4, what does the author imply about the wealthy upper classes?
- (A) They occasionally helped writers to create poems.
  - (B) They willingly contributed to the intellectual and cultural field.
  - (C) They placed the highest value upon theater.
  - (D) All of their donations were required by tax laws.

Paragraph 4 is marked with an arrow [➡].

6. The word **their** in the passage refers to
- (A) students
  - (B) thinkers
  - (C) nobles
  - (D) writers
7. The author mentions **initial king and his two successors** in the passage in order to
- (A) show how the leadership passed through the ages
  - (B) highlight their respective academic background
  - (C) explain the significance of kinship in Egyptian culture
  - (D) contrast Egypt's longevity to that of other kingdoms
8. The word **exceptional** in the passage is closest in meaning to
- (A) coherent
  - (B) emergent
  - (C) fractious
  - (D) extraordinary
9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The Royal Library of Alexandria was the first modern academic institution to provide scholars with the extensive resources.
  - (B) Researchers who visited the Royal Library of Alexandria found a resource which contained scrolls on a myriad of different subjects.
  - (C) The main importance of the Royal Library of Alexandria to scholars was the fact that it served as the basis for future libraries.
  - (D) If it were not for the Royal Library of Alexandria, scholars would not have been able to create as many scrolls on a variety of fields.

10. Which of the following is NOT mentioned as a reason scholars were attracted to Alexandria?

- (A) They were given papyrus to store their information.
- (B) Large monthly stipends were given to them.
- (C) Luxurious accommodations were provided for free.
- (D) Pledges were made to reduce the amount of taxes.

11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**The severed kingdoms continued to flourish under new leadership.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**After Alexander the Great's death, his empire was split into three parts.**

- 
- 
- 

Answer Choices

- |   |   |
|---|---|
| (A) Egypt was able to accumulate wealth due to its location and economic resources. | (D) Monasteries played a crucial role in Alexandria with an overwhelming collection of books. |
| (B) Alexander the Great established a far-flung empire during his lifetime.         | (E) Each kingdom actively pursued its own academic development.                               |
| (C) Egypt's success was largely based on its museum and advantages to scholars.     | (F) Three kingdoms were exclusively hostile to each other.                                    |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.487

## [1] Chimpanzees

- 1 Chimpanzees are the species of ape most closely related to *Homo sapiens*. Their relatively similar physiological structure as well as notable level of intelligence has captured the interest of ethologists, who study behavior of animals in their natural habitats, since a breakthrough study was published in the 1970s by British researcher Jane Goodall. Living among a population of chimps in Tanzania's Gombe National Park, Goodall observed behavior that had never before been documented; in an effort to collect protein for their otherwise herbivorous diet, female chimps capitalize on the plentiful termite nests, a feat that requires the use of manufactured tools. Her research stood in direct conflict with the firmly entrenched biological law that defined humans as the sole tool-making animals, separating *Homo sapiens* from primates that merely made use of available goods to forage for food, build shelter, and defend territory.
- 2 ➡ According to Goodall's notes, the Gombe chimpanzees consciously gather material and fashion it to their needs in order to go 'fishing' for termites. First, they locate a long branch and shear off its bark and leaves to create a smooth stick. Like a farmer plunging a shovel into the soil to plant seed, they will drill holes into sun-baked mounds, probing for a subterranean chamber yielding the most insects. Then, they use a second instrument, often a long blade of grass that has been pulled through their mouths and frayed at one end by their canine teeth, to harvest the exposed termites. When the utensil's paintbrush-like tip is covered with nutritious bugs, these are consumed immediately. The entire process shows foresight as the chimps search out nests with ample resources and always arrive with the correct tools in hand, even favoring particular species of vegetation to construct their tools, for which they frequently must travel a good distance to acquire.
- 3 Termite fishing is not particularly instinctual, nor does it appear to be common across the species, implying that, similar to humans pursuing scientific advancement, the technology of chimp society forges ahead through trial and error. To fabricate a new implement, chimps mentally conceptualize all conditions related to their objective and extract material to satisfy this goal. If a particular material does not function as intended, then they may choose a different sample and try again. Their inventive and flexible thinking skills allow them to move on to plan B should plan A fail. Tai Forest chimpanzees living in the Ivory Coast use rocks to smash open hard husks to reach the nutritive kernels inside, and will try one stone after another until they find one that works efficiently in opening the nuts. Once they discover the best tool, they will carry it with them to new foraging sites, making sure to treat it as a special possession.
- 4 ➡ Quick-witted intelligence notwithstanding, chimpanzees are highly influenced by a gradual form of learning, imitating the behavior of their parents and other members of the community as they procure tools. ■ Adroitness is reinforced over time as babies receive feedback from their mothers, correcting inappropriate or ineffectual application. ■ Older chimps may point to or suggest which trees will provide the best raw materials or may bring back good rock samples and school the youngsters on their appealing qualities. ■ This social interaction is the foundation of their enculturation and even chimps in their fourth or fifth years, more experienced than the babies, receive assistance from their mentors on an ongoing basis. ■ Special techniques, such as binding a bundle of leaves together to make a toothbrush, require perfectly honed skills gleaned from methodical teaching which is followed by years of practice.



- 5 Spurred on by Goodall's findings and those of her colleagues, modern researchers have implemented infrared, motion-triggered video cameras into communities in an effort to capture previously undocumented chimpanzee tool use. As the data continue to stack up, traditional scientists will be forced to reexamine the assumed hierarchy of nature, which places people at the pinnacle.

1. The word **notable** in the passage is closest in meaning to
  - (A) ambivalent
  - (B) celestial
  - (C) remarkable
  - (D) petty
2. According to the passage, what made Jane Goodall's work so significant?
  - (A) She was the first person to live among chimpanzees in the wild.
  - (B) She was the first to record evidence of chimpanzee tool use.
  - (C) She was the first to enter Gombe National Park for studies.
  - (D) She was the first person to do research on chimpanzee diet.
3. The word **conflict** in the passage is closest in meaning to
  - (A) custody
  - (B) punctuality
  - (C) demise
  - (D) disagreement
4. In paragraph 2, why does the author mention a shovel?
  - (A) To show the importance of tools to chimpanzees
  - (B) To explain how people employ it when farming
  - (C) To compare the chimpanzee's action with a stick to its use
  - (D) To differentiate the human's purpose from the chimpanzee's

Paragraph 2 is marked with an arrow [➡].

5. According to the passage, chimpanzees exploit a long blade of grass
  - (A) to get the termites from their subterranean nest
  - (B) to make a hole in the termite mounds
  - (C) to sharpen their teeth for feeding
  - (D) to discover where termites are located

6. The word these in the passage refers to
- (A) mounds
  - (B) mouths
  - (C) bugs
  - (D) resources
7. Which of the following is true of chimpanzees' termite fishing in paragraph 2?
- (A) It provides evidence that they know when it works best.
  - (B) It shows they use easily accessible materials to create tools.
  - (C) It demonstrates their planning in acquiring food.
  - (D) It contradicts Goodall's account of how they collect termites.

Paragraph 2 is marked with an arrow [➡].

8. The word Adroitness in the passage is closest in meaning to
- (A) Identity
  - (B) Dexterity
  - (C) Affliction
  - (D) Redundancy
9. The word inappropriate in the passage is closest in meaning to
- (A) irreparable
  - (B) symmetrical
  - (C) improper
  - (D) adequate
10. In paragraph 4, the author mentions a toothbrush as an example of
- (A) toys that chimpanzees play with to develop sociality
  - (B) a tool that needs many repetitions for chimpanzees to make correctly
  - (C) the possible uses of leaves which must be gathered from far away
  - (D) cleanliness found in an animal other than people

Paragraph 4 is marked with an arrow [➡].

11. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) Scientists have spurred Goodall to use new technology in order to observe chimpanzees' behaviors.
  - (B) Goodall's use of video cameras led modern scientists to support the notion that chimpanzees are tool users.
  - (C) Scientists have been currently using technology to record occurrences of tool use among chimpanzees.
  - (D) Research using video cameras has pushed Goodall and her associates into finding proof that chimpanzees use tools.

12. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Meanwhile, infants gain knowledge and comprehension of existing technology by closely watching their mothers mold tools, putting them into service.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

13. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**One way that intelligence among chimpanzees is demonstrated is by their proficiency at making and using tools.**

Answer Choices

- |   |   |
|---|---|
| (A) Acquired learning is not as important as the innate knowledge of the chimpanzees.                   | (D) Chimpanzees prepare tools with an obvious intention when foraging for food.       |
| (B) The Tai Forest chimpanzees find the most appropriate stone to break husks.                          | (E) Chimpanzees experiment in order to find something that best suits their purposes. |
| (C) The schooling received by the young is primarily composed of mimicking the actions of their elders. | (F) Chimpanzees may upset the established version of nature which has man at the top. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.489



## [2] Coastal Deserts

- 1 Deserts are commonly thought to be hot, arid areas with little precipitation; however, scientists do not use temperature when classifying them and this more lenient definition allows researchers to expand the range of areas deemed to be deserts. Coastal deserts, an extremely rare form, fall into this broad category because although they are temperate, they are some of the driest regions of Earth. Generally found on the western edges of continents at the Tropics of Cancer and Capricorn, they are the complex manifestation of several overlapping terrestrial, oceanic, and atmospheric systems.
- 2 ➡ The Namib Desert, a prime example of coastal deserts, runs parallel to Africa's Atlantic Coast and is a moderately warm biome with temperatures ranging between a minimum of 20 degrees Celsius and a maximum of 25 in the warm season and between 10 and 20 degrees in the cooler months. Similarly, the Atacama Desert, located along Chile's Pacific Coast, has a predictably mild climate, but is considered as arid as the frozen ice caps of the Antarctic pole. Both areas consume long stretches of land along the shores of their respective continents, yet do not extend more than 125 kilometers in width, a common phenomenon in all coastal deserts.
- 3 ➡ To the west of the Atacama is a system of frigid air caused by an influential cold water current that flows from the Polar Region, moves swiftly through the deep sea toward the Tropic of Capricorn, and brushes past the Chilean coastline. The coursing current, called the Humbolt Current, chills the upper atmosphere and thus creates a layer of freezing air trapped between the surface of the ocean and the warmer air above. As the predominant cause of desertification, this unusual micro climate called a temperature inversion prevents the regular formation of high moisture bearing clouds, which requires a certain temperature gradient, capable of delivering precipitation further inland. Breezes, however, still move eastward and can sweep in the cold air as far as 80 kilometers, about approximately the same distance as the deserts are wide.
- 4 The wind also carries in fog that becomes trapped between the warm and cool atmospheric layers, and is characteristically present along the shore. ■ The heavy humid fog sits in the air and can cause near saturation levels in the lower atmosphere over land. ■ In the Namib Desert, the humidity is at 100 percent for 19 hours a day in the summer and 11 hours a day in the winter, much higher than what would be expected in dry or inland desert regions. ■ Furthermore, the fog actually enhances desertification because, as it is denser than regular air, it is highly reflective and bounces a lot of the heat energy received via sunlight back into space. ■ The lack of solar radiation hitting the earth hinders evaporation from the sea.
- 5 Conversely, the effects of inland evaporation influenced by the surrounding geography are aggravated and gradually, the repletion level of local fresh-water lakes left behind thousands of years ago in basins during periods of heavy rain, or the result of melting mineral-laden glaciers at the end of the last Ice Age, is lowered. Wind gusting toward the Atacama Desert from the interior tropical regions does carry some moisture, but the Andes Mountains act like a shield, halting the wind's progress, and the moist air condenses under pressure, forms heavy clouds, and eventually dumps its water onto the range, thwarting any hope that precipitation will reach the dry region. Coastal plains that are in the 'rain shadow' of mountains still receive moisture from winds in other directions, but the Atacama is blocked to the north and south by the high plateaus that

act as additional barricades to rain, exacerbating the severity of climate. Some plants and animals have found ways to adapt to coastal desert areas by finding food and water in different ways, like accessing deep groundwater or taking moisture from the foggy air.

1. The word **lenient** in the passage is closest in meaning to
  - (A) restrictive
  - (B) tolerant
  - (C) deceitful
  - (D) dependent
2. Why does the author mention the Tropics of Cancer and Capricorn in the passage?
  - (A) To explain why coastal deserts form in the temperate region
  - (B) To identify types of earth topography in the coastal area
  - (C) To give the northern most limit that desertification can occur
  - (D) To establish the ranges where coastal deserts can be found
3. In paragraph 2, the author explains the concept of coastal deserts by
  - (A) highlighting their importance in the global weather
  - (B) describing the conditions of the two most famous examples
  - (C) comparing coastal deserts to common deserts
  - (D) discussing the geographic features required for their creation

Paragraph 2 is marked with an arrow [➡].

4. According to paragraph 3, the main reason that the Atacama is so dry is
  - (A) the lack of moisture-laden clouds
  - (B) its location on the eastern side of Chile
  - (C) the strength of the wind off the ocean
  - (D) the depth of the sea near Chile

Paragraph 3 is marked with an arrow [➡].

5. The word **respective** in the passage is closest in meaning to
  - (A) delicate
  - (B) own
  - (C) pronounced
  - (D) counterfeit

6. The word *enhances* in the passage is closest in meaning to
- (A) abolishes
  - (B) remands
  - (C) overstates
  - (D) intensifies
7. The word *it* in the passage refers to
- (A) humidity
  - (B) fog
  - (C) air
  - (D) energy
8. According to the passage, moisture bearing winds fail to reach the Atacama Desert because
- (A) it is situated in the low altitude above sea level
  - (B) mineral-laden glaciers melted from the heat
  - (C) the Andes Mountains block the passage of the wind
  - (D) the warm water current moves slowly through the sea
9. The word *thwarting* in the passage is closest in meaning to
- (A) defending
  - (B) administering
  - (C) frustrating
  - (D) enforcing
10. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
- (A) The lack of ground or air moisture in the desert areas forces organisms to seek alternative water sources.
  - (B) Different methods to use groundwater have been adopted by organisms that inhabit the coastal areas.
  - (C) Coastal deserts hinder fauna and flora from absorbing moisture from the air or underground by various means.
  - (D) The endemic species are able to survive in the arid conditions by using alternate means of acquiring food and moisture.



11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**Despite such high levels of moisture, a temperature inversion continues to inhibit rain cloud formation.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Coastal deserts result when multiple conditions come together to form a unique biome.**

Answer Choices

- |   |   |
|---|---|
| (A) Coastal deserts are the only form of temperate deserts in the world.                    | (D) Some sources of water in the coastal deserts existed prior to the area becoming a desert. |
| (B) The Humbolt Current lowers the surface temperatures, causing temperature inversions.    | (E) Coastal deserts are replenished by the periodic rains.                                    |
| (C) Rains dump on the mountains, but not along the coast because of the rain shadow effect. | (F) High levels of fog reflect heat energy and obstruct evaporation from the sea.             |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

정답 p.490

### [3] The New Deal Arts Program

- 1 The stock market crash of 1929 crippled the American economy and its effects brought the country into the Great Depression. A lack of consumer confidence in financial institutions further led to an unprecedented level of unemployment and dramatic drops in industrial production. After being sworn into office in 1932, Franklin Delano Roosevelt made drastic changes to economic and political policies by intervening with strong government regulation and a package of massive public works projects called the New Deal. In order to provide jobs for Americans and a more modern infrastructure, the objectives were carried out by a number of agencies created specifically for the New Deal. The Works Progress Administration, the largest and most comprehensive agency of the time, was aimed at white and blue collar workers alike but had the lasting effect of preserving and developing the cultural arts.
- 2 During its existence, the WPA employed over 12 million people and spent nearly two billion dollars to aid a depressed economy. The largest project set up by the WPA, called Federal One, was unique in its efforts to broaden the public's cultural awareness. Rather than subsidize existing organizations through federal grants, it chose to direct and originate cultural programs on its own. Federal One was composed of five divisions with three having particular significance: the Federal Theater Project, the Federal Writers' Project, and the Federal Art Project. Each division was dedicated to serving the public by making a variety of cultural works.
- 3 Of the major projects, the Federal Theater Project had the greatest impact on society. Focusing on the dramatic arts, over ten thousand theater workers were employed at the project's peak. During its four year history, the FTP produced more than twelve hundred plays and performed a thousand performances each month, while introducing much of the public to the live theater for the first time. Young actors were also able to hone their skills by practicing their craft in a variety of plays, ranging from children's productions to modern dramas and comedies. In addition to these plays, a radio program called "A Federal Theatre to Air" reached millions of listeners each week on all the major networks and a separate magazine was published to critique the different plays it presented nationwide each week.
- 4 The Federal Art Project proved to have a wide reach as well, creating over 5,000 jobs for artists and producing over 225,000 works of art for the American people. The project consisted of two primary objectives: to give monetary relief to unemployed artists and provide artwork for non-federal public buildings. Much of the artwork invented during this time accentuated nationalism and the rediscovery of America as a subject piece. Muralists concentrated on works with regional emphasis for public buildings and graphic artists made posters for the government. Community art centers were built and maintained to hire hundreds of art teachers. The centers were mainly devoted to community education rather than practical training. The backbone of the art centers was an educational program that was comprised of classes and workshops for both children and adults. Art research was also under the purview of the FAP and the Index of American Design generated plates which afforded a historical and pictorial record of daily life in America.
- 5 ➡ The Federal Writers' Project was designed to not only put writers and journalists to work but also other white collar workers such as lawyers, teachers, and librarians. ■ The main goal of the FWP was to compile tour guides to the 48 states and the territories of Alaska and Puerto Rico. ■



Travel by automobile was expanding rapidly and the last travel guide to the United States was published decades before. ■ Included in each guide were exhaustive descriptions of towns, cities, and historical landmarks, along with vast collections of local history and folklore, photographs, essays, and artwork. ■ Although the guide series is the best-known project, numerous other articles, pamphlets, books, and monographs were published on all aspects of American life, including nature studies, children's educational materials, and the first ethnic studies to be made available to the general public. In addition to these activities, writers were also commissioned to do research and supply editorial and writing services for other government agencies.

- 6 ➡ With the onset of World War II, cutbacks did away with many of the Federal One projects and the WPA shifted its resources to issues of national defense. Due to a booming wartime economy, the availability of jobs in the private sector increased and the WPA and its divisions were eliminated by a presidential proclamation.

1. The word **confidence** in the passage is closest in meaning to
  - (A) reliance
  - (B) indifference
  - (C) affection
  - (D) suspicion
2. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) The WPA was created in order to preserve and develop the cultural arts in America.
  - (B) The WPA was able to help many types of people but had the greatest impact on the arts.
  - (C) The WPA was originally established to find employment for unskilled workers.
  - (D) The WPA was the largest agency responsible for promoting the arts in America.
3. According to the passage, which of the following is true of Federal One?
  - (A) It consisted of three departments that acted in serving the public.
  - (B) It helped fund institutions devoted to the arts with federal subsidy.
  - (C) It gave jobs to over twelve million people at the height of the project.
  - (D) It created several divisions set to extend the public's appreciation of the arts.
4. The word **its** in the passage refers to
  - (A) impact
  - (B) society
  - (C) peak
  - (D) FTP



5. According to the passage, what effect did the Federal Theater Project have on the theater performers?
  - (A) They had the opportunity to perform in public for the first time.
  - (B) They received preferential treatment to subscribe to magazines for nothing.
  - (C) They improved their skills by appearing in a wide range of plays.
  - (D) They became celebrities due to the popularity of "A Federal Theatre to Air."
6. According to the passage, the Federal Art Project served all of the following purposes EXCEPT
  - (A) supplying the artwork in government buildings
  - (B) accumulating material about daily American life
  - (C) providing out of work artists with financial help
  - (D) building art centers that educated the community on art
7. The word **objectives** in the passage is closest in meaning to
  - (A) alternatives
  - (B) drills
  - (C) goals
  - (D) witnesses
8. The word **purview** in the passage is closest in meaning to
  - (A) revision
  - (B) scope
  - (C) creation
  - (D) analysis
9. The word **exhaustive** in the passage is closest in meaning to
  - (A) dissipative
  - (B) added
  - (C) thorough
  - (D) tumultuous
10. According to paragraph 5, the guide series
  - (A) was heavily dependent upon the use of the automobile to gather research material
  - (B) was regarded as the only completed task done by the Federal Writers' Project
  - (C) included extensive information on a variety of aspects in the US and its territories
  - (D) was supposed to be only for writers but later hired people from other professions

Paragraph 5 is marked with an arrow [➡].
11. Which of the following can be inferred from paragraph 6?
  - (A) The Works Progress Administration was folded into the defense department.
  - (B) Decreasing unemployment removed the need for a federal works program.
  - (C) There was little need for job assistance due to the number of people in the army.
  - (D) Federal One projects were administered by a different agency after the war.

Paragraph 6 is marked with an arrow [➡].

12. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**To this day, the guide series by the FWP comprises the most complete encyclopedia of Americana ever published and several volumes have been updated for release.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

13. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Federal One was set up during the Great Depression to increase employment and expand the cultural horizons of the American people.**

Answer Choices

- |   |   |
|---|---|
| (A) Numerous artists were supported to create artworks which emphasize patriotism.      | (D) Federal One had little to show for their effort because of the war.                   |
| (B) Five different departments made up Federal One, but not all were equally important. | (E) Federal public buildings traditionally retained a bulk of murals and graphic posters. |
| (C) Thousands of people were hired to run plays in the theater industry.                | (F) Many were exposed to new facets of American life through publications.                |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

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#### [4] Human and Cetacean Intelligence

- 1 ➡ The study of the evolution of intelligence, an event which has occurred independently multiple times among vertebrates, and inquiries attempting to compare interspecies' abilities, have always had the implicit assumption that Homo sapiens was the pinnacle of this development. Yet, recent research has shown chimpanzees as well as cetaceans, especially dolphins, have astoundingly high levels of intelligence that have called into question this fundamental premise.
- 2 ➡ The classic measure of intelligence which is determined by the absolute size of the brain, based on the assumption that animals with larger brains are more intelligent than those with smaller ones, begins to break down when examining more massive animals since cetaceans like the blue whale have enormous brains, so a formula to weight the ratio of brain relative to body mass was devised. While the absolute brain mass for cetaceans generally tends to be greater than that of humans when brain-body ratios are contrasted, the revised ratio for humans is nearly double than that of the dolphin, the cetacean with the highest figure. Still unresolved is the fact that the most important part of the brain, the cortex, which has proven to be the seat of higher learning, is forty percent larger in dolphin brains than the human's, and contains almost as many intricate folds that increase its surface area.
- 3 Based upon these findings, the certainty with which humans have held their intelligence seems to waver, and while some studies have published figures that place the intelligence of the cetaceans between that of dogs and humans, there is some doubt as to the basis of those characterizations.
- 4 ➡ The quandary that researchers face is how to define what intelligence is. Since humans are visual and their brains are disproportionably weighted to analyze the world from that viewpoint, all prior research has tended to quantify cognition by optical stimuli, but this bias affects the ability of researchers to consider alternate forms of intelligence. The brains of the cetaceans are very sensitive to sound with a large proportion allocated to listening. When considering the environment in which they live and their primary manner of communication, echolocation, which is a highly complex sensory system whereby cetaceans emit high-pitched sounds and use the echoes to decipher the direction and distance of objects, it seems feasible that sound intelligence comprises much of their cognition. It follows that their abilities and skills are adaptations to their environment and resultantly, their brains have evolved in the manner which best suits their needs, and thus viewed from this alternative perspective, humans may not be more intelligent, but instead use their brains in the manner most efficient for their circumstances.
- 5 ■ The idea of cetacean intelligence is not new, but is one that has been persistent throughout history and is reflected in the literature of many cultures. ■ One reason for the enduring belief in cetacean intelligence is the fact that they are able to imitate human behavior. ■ It was also reported that both chimpanzees and cetaceans are able to learn a limited amount of simple vocabulary and can communicate with people using those words. ■ However, these actions have been proposed by some as a type of conditioning in which the animals are learning to respond to cues in order to receive food and that it is not a display of higher level thinking.
- 6 ➡ An observation that is harder to dismiss is the use of tools by animals in the wild, since many researchers consider the ability to manipulate one's environment a sign of intelligence. There have been documented cases in which researchers have observed dolphins using tools to solve



problems, such as the case when a dolphin forced a moray eel out of hiding by killing a scorpion fish and using its spiny body to poke at the eel. In Australia, bottlenose dolphins place sponges over their snouts when they forage for food in shallow seabeds to protect themselves from the spines of stonefish and stingrays. Nevertheless, it is difficult to judge their intelligence based on these limited observations, leaving the question of cetacean intellectual capability open to further speculation.

1. In paragraph 1, the author states that the development of intelligence
  - (A) was not a singular occurrence
  - (B) only happened to humans
  - (C) was similar among different species
  - (D) had a common lineage

Paragraph 1 is marked with an arrow [➡].

2. The word **premise** in the passage is closest in meaning to
  - (A) rupture
  - (B) advent
  - (C) supposition
  - (D) course
3. The word **ones** in the passage refers to
  - (A) dolphins
  - (B) levels
  - (C) animals
  - (D) brains
4. The word **tends** in the passage is closest in meaning to
  - (A) remains
  - (B) is inclined
  - (C) seems
  - (D) is willing

5. Which of the following is true of the brain in paragraph 2?

- (A) The cortex of dolphin is bigger than that of human.
- (B) The brain folds are an accurate gauge of cognitive ability.
- (C) The brain is vulnerable to an intelligence experiment.
- (D) The brain size is not a consideration for a mental test.

Paragraph 2 is marked with an arrow [➡].

6. The word **viewpoint** in the passage is closest in meaning to

- (A) angle
- (B) hallmark
- (C) standstill
- (D) amenity

7. The word **bias** in the passage is closest in meaning to

- (A) relief
- (B) stride
- (C) realm
- (D) prejudice

8. Which of the following statements most accurately reflects the author's opinion about cetacean intelligence in paragraph 4?

- (A) It is desirable to use conditioning as a method of increasing cetacean intelligence.
- (B) Cetaceans may be smarter than humans if echolocation is thought of as a type of intelligence.
- (C) Displays of cetacean intelligence are due to training, not cognition.
- (D) It is not appropriate to conclude cetacean intelligence from human's standard.

Paragraph 4 is marked with an arrow [➡].

9. In paragraph 6, the author considers tool use by animals noteworthy because

- (A) the observation of animals making implements was arduous work
- (B) it is an indicator of wild species' ability to protect themselves
- (C) interaction with the environment in this manner hints at intelligence
- (D) only humans have had the capability to make their own tools

Paragraph 6 is marked with an arrow [➡].

10. Why does the author mention **sponges** in the passage?

- (A) To contradict that dolphins have intelligence
- (B) To illustrate the dangers dolphins encounter
- (C) To show the sensitivity of the dolphin snout
- (D) To give an example of dolphins' tool use

11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**For example, a dolphin in captivity was observed wiping off its body after seeing a diver do the same thing.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: Select the appropriate phrases from the answer choices and match them to the type of intelligence to which they relate. ***This question is worth 3 points.***

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

Answer Choices	Cetacean
(A) Requires a long period of time to master complex vocabularies	●
(B) Uses acoustic systems to analyze the surrounding	●
(C) Is basically responsive to optical cues	●
(D) Takes advantage of a scorpion fish to catch a moray eel	Human
(E) Has a lower level of intelligence than that of a dog	●
(F) Has a cortex in the brain	Both
(G) Allots large proportions of the brain to a sound stimulus	●

정답 p.493



### [5] Carnivorous Plants

- 1 All plants are autotrophic, meaning that they are able to generate their own food. The most common method is photosynthesis using chlorophyll, a green photosynthetic pigment that absorbs sunlight and transforms its blue and red electromagnetic spectrum into energy. While this process requires sunlight, water, and carbon dioxide, most people erroneously believe that these are the sum of a plant's requirements; however, it also requires a certain set of vitamins and nutrients and if a plant cannot attain those through soil or rainfall, then it may seek them through other means.
- 2 Where access to some nutrients, particularly nitrogen, is diminished, plants must obtain them by acquiring and digesting insects or other small organisms in order to absorb the required nourishment from their soft anatomy. These plants, which usually grow in swampy or otherwise moist conditions, some underwater and some on land, are by definition carnivorous or insectivorous because they attract, capture, and consume prey.
- 3 Underwater insectivorous plants are generally found submerged or floating in the shallow water along the margins of lakes and streams. Bladderworts, for example, catch aquatic insects with a complex mechanism whereby four curled but stiff hairs situated along the delicate leaves hide a special hinged flap on the stem, and when touched by an organism, act as triggers to alert the plant to its presence. Like a trapdoor, the hatch springs open, and water rushes into an empty bladder, the force of which propels the victim inside the vascular structure and then snaps shut, trapping the insect inside. The action takes place in less than one-hundredth of a second and makes a distinct popping sound. The corralled prey eventually dies, is broken down by bacteria, and the chemical compounds are absorbed by cells in the walls of the bladder.
- 4 Unlike underwater plants that rely on water pressure to pull in their prey, terrestrial carnivorous plants must operate in the open air and have thus developed insect-trapping leaves. Some are cone-shaped or vase-like and controlled through the quick release and acquisition of water sucked up through the soil into the stem, acting like a human muscle. The Venus Flytrap is certainly the most famous example of this and one of the largest specimens of carnivorous plants in general. Its leaves usually remain open wide, displaying cilia (short stiff hairs) that, when touched by a moving insect or small animal, trigger the plant to use its aqueous muscle system and snap shut, trapping its prey inside. If the apprehended object is too small or has no nutritional value, then the plant will reopen its leaf and 'spit' the object out. Otherwise, it will make an airtight seal and, like a human stomach, the plant will tightly constrict around its food and begin to secrete digestive juices for breaking down the soft tissue around the exoskeleton or skeleton and antiseptic juices for purifying the organism. Within two weeks, the trapping leaf opens and the remaining undigested material is either washed away by rainfall or blown off by the wind. Then, it prepares for the next victim to tread close enough to take prisoner.
- 5 ➡ In contrast, other land plants have developed a much more passive method of trapping prey that also utilizes specialized leaves but in a much simpler manner. Pitcher plants secrete nectar that attracts insects and small animals foraging for food. As the organisms approach the plant, they fall into pitcher-shaped leaves, and slip further down into a watery fluid at the bottom. If the insects try to climb out, they find the walls highly polished and slippery, coated with a natural wax

that sticks to their feet, the build-up of which prevents escape. ■ Eventually they drown, and their soft parts are digested by bacteria and by enzymes secreted by digestive glands near the bottoms of the leaves. ■ Pitcher-shaped leaves, however, are not always successful, especially when an organism's salubrious adaptation forces the carnivorous plant to adapt and change. ■ Malaysian tree frogs, for instance, have sticky pads on their feet, and are thus undaunted by the plant's waxy surface, laying their eggs among the dangerous foliage. ■

1. The word **erroneously** in the passage is closest in meaning to
  - (A) especially
  - (B) genuinely
  - (C) predominantly
  - (D) incorrectly
2. The word **it** in the passage refers to
  - (A) process
  - (B) carbon dioxide
  - (C) sum
  - (D) plant
3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.
  - (A) Plants that consume insects as a source of nutrients usually suffer from a significant lack of nitrogen.
  - (B) Nitrogen is so important for plants' subsistence that they need to get it from the insects' anatomy.
  - (C) Plants must ingest living organisms when unable to get the requisite substances properly.
  - (D) Insects contain many nutrients and so are prized by plants which feed upon them to supplement their needs.
4. The word **swampy** in the passage is closest in meaning to
  - (A) fierce
  - (B) boggy
  - (C) acid
  - (D) scorching

5. The word **hide** in the passage is closest in meaning to
- (A) conceal
  - (B) clutch
  - (C) mount
  - (D) abhor
6. According to the passage, a bladderwort traps its prey by
- (A) pulling its prey inside using water pressure
  - (B) using sound to force the prey to move inside
  - (C) linking small trigger hairs to the trap door
  - (D) breaking it down using internal bacteria
7. The word **apprehended** in the passage is closest in meaning to
- (A) blocked
  - (B) dreaded
  - (C) seized
  - (D) alerted
8. According to the passage, what does the author imply about the Venus Flytrap?
- (A) It uses a system similar to the bladderwort to trap insects.
  - (B) It is one of the largest and most well-known plants in the world.
  - (C) It is able to distinguish between edible and inedible items trapped.
  - (D) It doesn't have stiff hairs that are situated along the leaves.
9. According to the passage, the wax along the walls of the pitcher plant serves to
- (A) create its own digestive liquids to break down insects
  - (B) protect the plant from bacteria during digestion
  - (C) keep the prey from being able to scramble out
  - (D) aid the plant in digesting the trapped prey
10. In paragraph 5, why does the author mention Malaysian tree frogs?
- (A) To describe how effective the tree frogs' footpads are
  - (B) To contrast the pitcher plants' prey with the Venus Flytraps'
  - (C) To demonstrate one species that competes with the pitcher plants
  - (D) To show that the pitcher plants are not fortunate at all times

Paragraph 5 is marked with an arrow [➡].



11. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

**For this reason, most insects never make it up the walls, but even if they do, they still face a formidable barricade of stiff downward-pointing hairs near the rim.**

Where would the sentence best fit?

Click on a square [■] to add the sentence to the passage.

12. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. ***This question is worth 2 points.***

**Carnivorous plants have diverse ways of trapping their prey.**

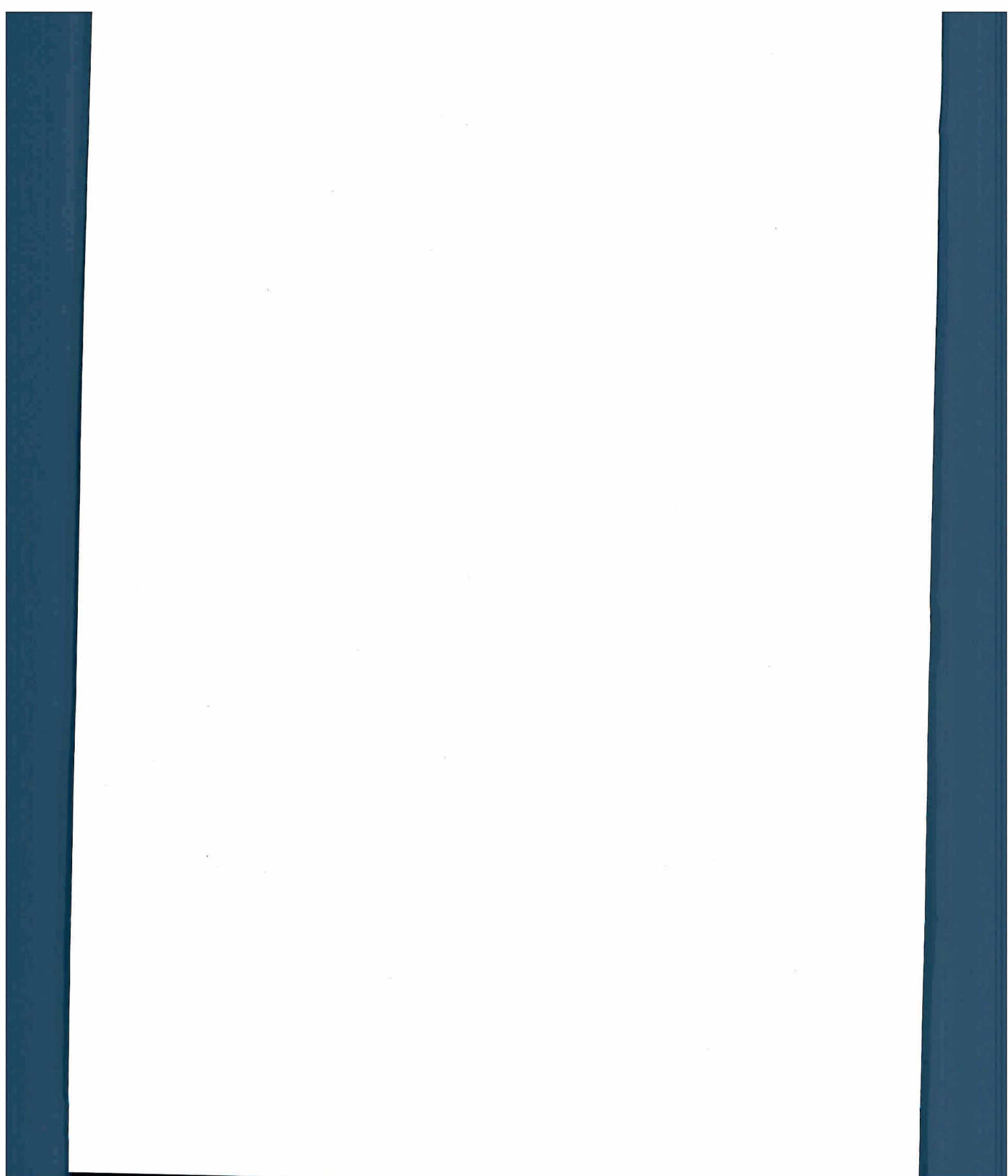
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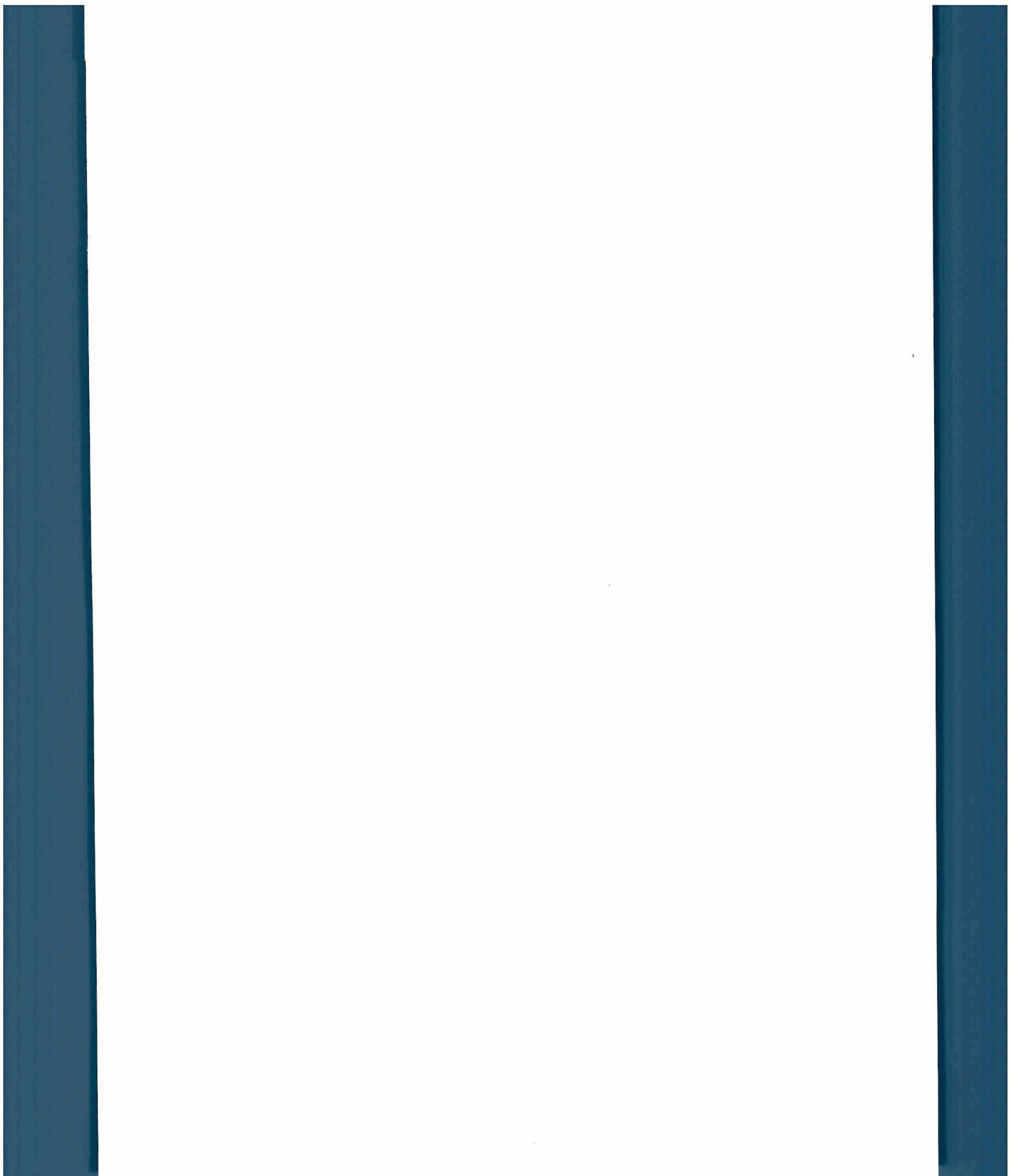
Answer Choices

- |  |  |
|--|--|
| (A) The Venus Fly Trap is perhaps the best known plant which has an active trap.         | (D) Passive traps are much more effective than active ones for land plants.                              |
| (B) Underwater plants rely upon the force of water to direct insects into their trap.    | (E) Some land plants trap the insects inside their unique leaves with water transfer into the stem.      |
| (C) The bladderworts display hairs that prevent dangerous insects from approaching them. | (F) Passive land plants attract insects into traps with specialized walls which they cannot escape from. |

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click on **View Text**.

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