

300 verbal questions unique to this guide



# Official Guide Verbal Review 2019

 Book +  Online

The ONLY  
source of real  
GMAT® questions  
from past  
exams

This edition includes  
**45 never-before-seen questions**

**NEW!** Refreshed introduction to sentence correction

**NEW!** Index of questions by subject area and difficulty

**IMPROVED!** Online question bank offers better performance metrics

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# GMAT<sup>TM</sup>

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## **GMAT® Official Guide Verbal Review 2019**

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Dear GMAT Test-Taker,

Thank you for your interest in graduate management education. Taking the GMAT® exam lets schools know that you're serious about your educational goals. By using the *Official Guide* to prepare for the GMAT exam, you're taking a very important step toward achieving your goals and pursuing admission to the MBA or business master's program that is the best fit for you.

This book, *GMAT® Official Guide Verbal Review 2019*, is designed to help you prepare for and build confidence to do your best on the GMAT exam. It's the only guide of its kind on the market that includes real GMAT exam questions published by the Graduate Management Admission Council (GMAC), the makers of the exam.

In 1954, leading business schools joined together to launch a standardized way of assessing candidates for business school programs. For 65 years, the GMAT exam has helped people demonstrate their command of the skills needed for success in the classroom. Schools use and trust the GMAT exam as part of their admissions process because it's a proven predictor of classroom success and your ability to excel in your chosen program.

Today more than 7,000 graduate programs around the world use the GMAT exam to establish their MBA, graduate-level management degrees and specialized business master's programs as hallmarks of excellence. Nine out of 10 new MBA enrollments globally are made using a GMAT score.\*

We are driven to keep improving the GMAT exam as well as to help you find and gain admission to the best school or program for you. We're committed to ensuring that no talent goes undiscovered and that more people around the world can pursue opportunities in graduate management education.

I applaud your commitment to educational success, and I know that this book and the other GMAT Official Prep materials available at [mba.com](http://mba.com) will give you the confidence to achieve your personal best on the GMAT exam and launch or reinvigorate a rewarding career.

I wish you success on all your educational and professional endeavors in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "Sangeet Chowfla". The signature is fluid and cursive, with the name clearly legible.

Sangeet Chowfla  
President & CEO of the Graduate Management Admission Council



**GMAT® Official Guide 2019**  
**Verbal Review**

## **1.0** What Is the GMAT® Exam?

# 1.0 What Is the GMAT® Exam?

The Graduate Management Admission Test® (GMAT®) exam is a standardized exam used in admissions decisions by more than 7,000 graduate management programs worldwide, at approximately 2,300 graduate business schools worldwide. It helps you gauge, and demonstrate to schools, your academic potential for success in graduate-level management studies.

The four-part exam measures your Analytical Writing, Integrated Reasoning, Verbal, and Quantitative Reasoning skills—higher-order reasoning skills that management faculty worldwide have identified as important for incoming students to have. “Higher-order” reasoning skills involve complex judgments, and include critical thinking, analysis, and problem solving. Unlike undergraduate grades and curricula, which vary in their meaning across regions and institutions, your GMAT scores provide a standardized, statistically valid and reliable measure of how you are likely to perform academically in the core curriculum of a graduate management program. The GMAT exam’s validity, fairness, and value in admissions have been well-established through numerous academic studies.

The GMAT exam is delivered entirely in English and solely on a computer. It is not a test of business knowledge, subject matter mastery, English vocabulary, or advanced computational skills. The GMAT exam also does not measure other factors related to success in graduate management study, such as job experience, leadership ability, motivation, and interpersonal skills. Your GMAT score is intended to be used as one admissions criterion among other, more subjective, criteria, such as admissions essays and interviews.

## 1.1 Why Take the GMAT® Exam?

Launched in 1954 by a group of nine business schools to provide a uniform measure of the academic skills needed to succeed in their programs, the GMAT exam is now used by more than 7,000 graduate management programs at approximately 2,300 institutions worldwide.

Taking the GMAT exam helps you stand out in the admissions process and demonstrate your readiness and commitment to pursuing graduate management education. Schools use GMAT scores to help them select the most qualified applicants—because they know that candidates who take the GMAT exam are serious about earning a graduate business degree, and it’s a proven predictor of a student’s ability to succeed in his or her chosen program. When you consider which programs to apply to, you can look at a school’s use of the GMAT exam as one indicator of quality. Schools that use the GMAT exam typically list score ranges or average scores in their class profiles, so you may also find these profiles helpful in gauging the academic competitiveness of a program you are considering and how well your performance on the exam compares with that of the students enrolled in the program.

No matter how you perform on the GMAT exam, you should contact the schools that interest you to learn more and to ask how they use GMAT scores and other criteria

### *Myth* -vs- FACT

*M* – If I don’t achieve a high score on the GMAT, I won’t get into my top choice schools.

**F** – There are great schools available for candidates at any GMAT score range.

Fewer than 50 of the more than 250,000 people taking the GMAT exam each year get a perfect score of 800; and many more get into top business school programs around the world each year. Admissions officers use GMAT scores as one component in their admissions decisions, in conjunction with undergraduate records, application essays, interviews, letters of recommendation, and other information when deciding whom to accept into their programs. Visit School Finder on [mba.com](http://mba.com) to learn about schools that are the best fit for you.

(such as your undergraduate grades, essays, and letters of recommendation) in their admissions processes. School admissions offices, web sites, and materials published by schools are the key sources of information when you are doing research about where you might want to go to business school.

For more information on the GMAT, test preparation materials, registration, how to use and send your GMAT scores to schools, and applying to business school, please visit [mba.com](http://mba.com).

## 1.2 GMAT® Exam Format

The GMAT exam consists of four separately timed sections (see the table on the next page). The Analytical Writing Assessment (AWA) section consists of one essay. The Integrated Reasoning section consists of graphical and data analysis questions in multiple response formats. The Quantitative and Verbal Reasoning sections consist of multiple-choice questions.

The Verbal and Quantitative sections of the GMAT exam are computer adaptive, which means that the test draws from a large bank of questions to tailor itself to your ability level, and you won't get many questions that are too hard or too easy for you. The first question will be of medium difficulty. As you answer each question, the computer scores your answer and uses it—as well as your responses to all preceding questions—to select the next question.

Computer-adaptive tests become more difficult the more questions you answer correctly, but if you get a question that seems easier than the last one, it does not necessarily mean you answered the last question incorrectly. The test has to cover a range of content, both in the type of question asked and the subject matter presented.

Because the computer uses your answers to select your next questions, you may not skip questions or go back and change your answer to a previous question. If you don't know the answer to a question, try to eliminate as many choices as possible, then select the answer you think is best.

Though the individual questions are different, the mix of question types is the same for every GMAT exam. Your score is determined by the difficulty and statistical characteristics of the questions you answer as well as the number of questions you answer correctly. By adapting to each test-taker, the GMAT exam is able to accurately and efficiently gauge skill levels over a full range of abilities, from very high to very low.

The test includes the types of questions found in this book and online at [mbawiley.com](http://mbawiley.com), but the format and presentation of the questions are different on the computer. When you take the test:

- Only one question or question prompt at a time is presented on the computer screen.
- The answer choices for the multiple-choice questions will be preceded by circles, rather than by letters.

### *Myth* -vs- FACT

- Getting an easier question means I answered the last one wrong.

- You should not become distracted by the difficulty level of a question.

Most people are not skilled at estimating question difficulty, so don't worry when taking the test or waste valuable time trying to determine the difficulty of the question you are answering.

To ensure that everyone receives the same content, the test selects a specific number of questions of each type. The test may call for your next problem to be a relatively hard data sufficiency question involving arithmetic operations. But, if there are no more relatively difficult data sufficiency questions involving arithmetic, you might be given an easier question.

- Different question types appear in random order in the multiple-choice and Integrated Reasoning sections.
- You must select your answer using the computer.
- You must choose an answer and confirm your choice before moving on to the next question.
- You may not go back to previous screens to change answers to previous questions.

Format of the GMAT® Exam		
	Questions	Timing
Analytical Writing Assessment	1	30 min.
Integrated Reasoning Multi-Source Reasoning Table Analysis Graphics Interpretation Two-Part Analysis	12	30 min.
Quantitative Reasoning Problem Solving Data Sufficiency	31	62 min.
Verbal Reasoning Reading Comprehension Critical Reasoning Sentence Correction	36	65 min.
Total Time:		187 min.

You will now have the flexibility to select the order for the section of the GMAT exam from three options.

Order #1	Order #2	Order #3
Analytical Writing Assessment		
Integrated Reasoning	Verbal	Quantitative
Optional 8-minute break		
Quantitative	Quantitative	Verbal
Optional 8-minute break		
Verbal	Integrated Reasoning	Integrated Reasoning
	Analytical Writing Assessment	Analytical Writing Assessment

The section order selection will take place at the test center on exam date, immediately prior to the start of the GMAT exam.

## 1.3 What Is the Content of the Test Like?

The GMAT exam measures higher-order analytical skills encompassing several types of reasoning. The Analytical Writing Assessment asks you to analyze the reasoning behind an argument and respond in writing; the Integrated Reasoning section asks you to interpret and synthesize information from multiple sources and in different formats to make reasoned conclusions; the Quantitative section asks you to reason quantitatively using basic arithmetic, algebra, and geometry; and the Verbal section asks you to read and comprehend written material and to reason and evaluate arguments.

Test questions may address a variety of subjects, but all of the information you need to answer the questions will be included on the exam, with no outside knowledge of the subject matter necessary. The GMAT exam is not a test of business knowledge, English vocabulary, or advanced computational skills. You will need to read and write in English and have basic math and English skills to perform well on the test, but its difficulty comes from analytical and critical thinking abilities.

The questions in this book are organized by question type and from easiest to most difficult, but keep in mind that when you take the test, you may see different types of questions in any order within each section.

## 1.4 Analytical Writing Assessment

The Analytical Writing Assessment (AWA) consists of one 30-minute writing task: Analysis of an Argument. The AWA measures your ability to think critically, communicate your ideas, and formulate an appropriate and constructive critique. You will type your essay on a computer keyboard.

## 1.5 Integrated Reasoning Section

The Integrated Reasoning section highlights the relevant skills that business managers in today's data-driven world need in order to analyze sophisticated streams of data and solve complex problems. It measures your ability to understand and evaluate multiple sources and types of information—graphic, numeric, and verbal—as they relate to one another. This section will require you to use both quantitative and verbal reasoning to solve complex problems and solve multiple problems in relation to one another.

Four types of questions are used in the Integrated Reasoning section:

- Multi-Source Reasoning
- Table Analysis
- Graphics Interpretation
- Two-Part Analysis

Integrated Reasoning questions may be quantitative, verbal, or a combination of both. You will have to interpret graphics and sort tables to extract meaning from data, but advanced statistical knowledge and spreadsheet manipulation skills are not necessary. You will have access to an on-screen calculator with basic functions for the Integrated Reasoning section, but note that the calculator is *not* available on the Quantitative section.

## 1.6 Quantitative Section

The GMAT Quantitative section measures your ability to reason quantitatively, solve quantitative problems, and interpret graphic data.

Two types of multiple-choice questions are used in the Quantitative section:

- Problem Solving
- Data Sufficiency

Both are intermingled throughout the Quantitative section, and require basic knowledge of arithmetic, elementary algebra, and commonly known concepts of geometry.

For test-taking tips specific to each question type in the Quantitative section, practice questions and answer explanations, see GMAT® Official Guide 2019, or GMAT® Official Guide Quantitative Review 2019; both are available for purchase at [mba.com](http://mba.com).

## 1.7 Verbal Section

The GMAT Verbal section measures your ability to read and comprehend written material and to reason and evaluate arguments. The Verbal section includes reading sections from several different content areas. Although you may be generally familiar with some of the material, neither the reading passages nor the questions assume detailed knowledge of the topics discussed.

Three types of multiple-choice questions are intermingled throughout the Verbal section:

- Reading Comprehension
- Critical Reasoning
- Sentence Correction

All three require basic knowledge of the English language, but the Verbal section is not a test of advanced vocabulary.

For test-taking tips specific to each question type in the Verbal section, practice questions, and answer explanations, see chapters 3 through 5.

## 1.8 What Computer Skills Will I Need?

The GMAT exam requires only basic computer skills. You will type your AWA essay on the computer keyboard using standard word-processing keystrokes. In the Integrated Reasoning and multiple-choice sections, you will select your responses using either your computer mouse or the keyboard. The Integrated Reasoning section includes basic computer navigation and functions, such as clicking on tabs and using drop-down menus to sort tables and select answers. You will also have access to an on-screen calculator in the Integrated Reasoning section (calculator is not available in any other section of the exam).

## 1.9 What Are the Test Centers Like?

The GMAT exam is administered under standardized conditions at test centers worldwide. Each test center has a proctored testing room with individual computer workstations that allow you to sit for the exam under quiet conditions and with some privacy. You will be able to take two optional 8-minute breaks during the course of the exam. You may not take notes or scratch paper with you into the testing room, but an erasable notepad and marker will be provided for you to use during the test. For more information about exam day visit [mbaworldwide.com](#).

## 1.10 How Are Scores Calculated?

Verbal and Quantitative sections are scored on a scale of 6 to 51, in one-point increments. The Total GMAT score ranges from 200 to 800 and is based on your performance in these two sections. Your score is determined by:

- The number of questions you answer
- The number of questions you answer correctly or incorrectly
- The level of difficulty and other statistical characteristics of each question

Your Verbal, Quantitative, and Total GMAT scores are determined by an algorithm that takes into account the difficulty of the questions that were presented to you and how you answered them. When you answer the easier questions correctly, you get a chance to answer harder questions, making it possible to earn a higher score. After you have completed all the questions on the test, or when your time is expired, the computer will calculate your scores. Your scores on the Verbal and Quantitative sections are combined to produce your Total score which ranges from 200 to 800 in 10-point increments.

The Analytical Writing Assessment consists of one writing task. Your essay will be scored two times independently. Essays are evaluated by college and university faculty members from a variety of disciplines, including management education, who rate the overall quality of your critical thinking and writing. (For details on how readers are qualified, visit [mbaworldwide.com](#).) In addition, your response is also scored by an automated scoring program designed to reflect the judgment of expert readers.

Your essay is scored on a scale of 0 to 6, in half point increments, with 6 being the highest score and 0 the lowest. A score of zero is given for responses that are off topic, are in a foreign language, merely attempt to copy the topic, consist only of keystroke characters, or are blank. Your AWA score is typically the average of two independent ratings. If the independent scores vary by more than a point, a third reader adjudicates, but because of ongoing training and monitoring, discrepancies are rare.

Your Integrated Reasoning section is scored on a scale of 1 to 8, in one-point increments. Many questions have multiple parts, and you must answer all parts of a question correctly to receive credit; partial credit will not be given.

Your Analytical Writing Assessment and Integrated Reasoning scores are computed and reported separately from the other sections of the test and have no effect on your Verbal, Quantitative, or Total scores. The schools that you have designated to receive your scores may receive a copy of your Analytical Writing Assessment essay with your score report. Your own copy of your score report will not include your essay.

Your GMAT score includes a percentile ranking that compares your skill level with other test-takers from the past three years. The percentile rank of your score shows the percentage of tests taken with scores lower than your score. Every July, percentile ranking tables are updated. Visit [mba.com](#) to view the most recent percentile rankings tables.

## 1.11 Test Development Process

The GMAT exam is developed by experts who use standardized procedures to ensure high-quality, widely-appropriate test material. All questions are subjected to independent reviews and are revised or discarded as necessary. Multiple-choice questions are tested during GMAT exam administrations. Analytical Writing Assessment tasks are tested on [mba.com](#) registrants and then assessed for their fairness and reliability. For more information on test development, visit [mba.com](#).

## **2.0** How to Prepare

## 2.0 How to Prepare

### 2.1 How Should I Prepare to Take the Test?

The GMAT® exam is designed specifically to measure reasoning skills needed for management education, and the test contains several question formats unique to the GMAT exam. At a minimum, you should be familiar with the test format and the question formats before you sit for the test. Because the GMAT exam is a timed exam, you should practice answering test questions, not only to better understand the question formats and the skills they require, but also to help you learn to pace yourself so you can finish each section when you sit for the exam.

Because the exam measures reasoning rather than subject matter knowledge, you most likely will not find it helpful to memorize facts. You do not need to study advanced mathematical concepts, but you should be sure your grasp of basic arithmetic, algebra, and geometry is sound enough that you can use these skills in quantitative problem solving. Likewise, you do not need to study advanced vocabulary words, but you should have a firm understanding of basic English vocabulary and grammar for reading, writing, and reasoning.

This book and other study materials released by the Graduate Management Admission Council (GMAC) are the ONLY source of questions that have been retired from the GMAT exam. All questions that appear or have appeared on the GMAT exam are copyrighted and owned by GMAC, which does not license them to be reprinted elsewhere. Accessing live Integrated Reasoning, Quantitative, or Verbal test questions in advance or sharing test content during or after you take the test is a serious violation, which could cause your scores to be canceled and schools to be notified. In cases of a serious violation, you may be banned from future testing and other legal remedies may be pursued.

#### *Myth* -vs- FACT

**M – You need very advanced math skills to get a high GMAT score.**

**F – The GMAT measures your reasoning and critical thinking abilities, rather than your advanced math skills.**

The GMAT exam only requires basic quantitative skills. You should review the math skills (algebra, geometry, basic arithmetic) presented in the *GMAT® Official Guide 2019* and the *GMAT® Official Guide Quantitative Review 2019*. The difficulty of GMAT Quantitative questions stems from the logic and analysis used to solve the problems and not the underlying math skills.

### 2.2 What About Practice Tests?

The Quantitative and Verbal sections of the GMAT exam are computer adaptive, and the Integrated Reasoning section includes questions that require you to use the computer to sort tables and navigate to different sources of information. Our official practice materials will help you get comfortable with the format of the test and better prepare for exam day. Two full-length GMAT practice exams are available at no charge for those who have created an account on [mba.com](http://mba.com). The practice exams include computer-adaptive Quantitative and Verbal sections, plus additional practice questions, information about the test, and tutorials to help you become familiar with how the GMAT exam will appear on the computer screen at the test center.

To maximize your studying efforts with the free practice exams, you should leverage official practice materials as you start to prepare for the test. Take one practice test to make yourself familiar with the exam and to get a baseline score. After you have studied using this book and other study materials, take the second practice test to determine whether you need to shift your focus to other areas you need to strengthen. Note that the free practice tests may include questions that are also published in this book. As your test day approaches, consider taking more official practice tests to help measure your progress and give you a better idea of how you might score on exam day.

## 2.3 Where Can I Get Additional Practice?

If you would like additional practice, you may want to purchase *GMAT® Official Guide Quantitative Review 2019* and/or *GMAT® Official Guide Verbal Review 2019*. You can also find more Quantitative, Verbal, and Integrated Reasoning practice questions, full-length, computer-adaptive practice exams, Analytical Writing Assessment practice prompts, and other helpful study materials at [magoosh.com/gmat/](http://magoosh.com/gmat/).

## 2.4 General Test-Taking Suggestions

Specific test-taking strategies for individual question types are presented later in this book. The following are general suggestions to help you perform your best on the test.

### 1. Use your time wisely.

Although the GMAT exam stresses accuracy more than speed, it is important to use your time wisely. On average, you will have about  $1\frac{3}{4}$  minutes for each Verbal question, about 2 minutes for each Quantitative question, and about  $2\frac{1}{2}$  minutes for each Integrated Reasoning question, some of which have multiple questions. Once you start the test, an onscreen clock will show the time you have left. You can hide this display if you want, but it is a good idea to check the clock periodically to monitor your progress. The clock will automatically alert you when 5 minutes remain for the section you are working on.

### 2. Answer practice questions ahead of time.

After you become generally familiar with all question types, use the practice questions in this book and online at [magoosh.com/gmat/](http://magoosh.com/gmat/) to prepare for the actual test (note that Integrated Reasoning questions are only available online). It may be useful to time yourself as you answer the practice questions to get an idea of how long you will have for each question when you sit for the actual test, as well as to determine whether you are answering quickly enough to finish the test in the allotted time.

### 3. Read all test directions carefully.

The directions explain exactly what is required to answer each question type. If you read hastily, you may miss important instructions and impact your ability to answer correctly. To review directions during the test, click on the Help icon. But be aware that the time you spend reviewing directions will count against your time allotment for that section of the test.

**4. Read each question carefully and thoroughly.**

Before you answer a question, determine exactly what is being asked and then select the best choice. Never skim a question or the possible answers; skimming may cause you to miss important information or nuances.

**5. Do not spend too much time on any one question.**

If you do not know the correct answer, or if the question is too time consuming, try to eliminate choices you know are wrong, select the best of the remaining answer choices, and move on to the next question. Not completing sections and randomly guessing answers to questions at the end of each test section can significantly lower your score. As long as you have worked on each section, you will receive a score even if you do not finish one or more sections in the allotted time. You will not earn points for questions you never get to see.

**6. Confirm your answers ONLY when you are ready to move on.**

On the Quantitative and Verbal sections, once you have selected your answer to a multiple-choice question, you will be asked to confirm it. Once you confirm your response, you cannot go back and change it. You may not skip questions. In the Integrated Reasoning section, there may be several questions based on information provided in the same question prompt. When there is more than one response on a single screen, you can change your response to any of the questions on the screen before moving on to the next screen. However, you may not navigate back to a previous screen to change any responses.

**7. Plan your essay answer before you begin to write.**

The best way to approach the Analysis of an Argument section is to read the directions carefully, take a few minutes to think about the question, and plan a response before you begin writing. Take time to organize your ideas and develop them fully, but leave time to reread your response and make any revisions that you think would improve it.

## Myth -vs- FACT

**M – It is more important to respond correctly to the test questions than it is to finish the test.**

**F – There is a significant penalty for not completing the GMAT exam.**

Pacing is important. If you are stumped by a question, give it your best guess and move on. If you guess incorrectly, the computer program will likely give you an easier question, which you are likely to answer correctly, and the computer will rapidly return to giving you questions matched to your ability. If you don't finish the test, your score will be reduced. Failing to answer five verbal questions, for example, could reduce your score from the 91st percentile to the 77th percentile.

## Myth -vs- FACT

**M – The first 10 questions are critical and you should invest the most time on those.**

**F – All questions count.**

The computer-adaptive testing algorithm uses each answered question to obtain an *initial* estimate. However, as you continue to answer questions, the algorithm self-corrects by computing an updated estimate on the basis of all the questions you have answered, and then administers items that are closely matched to this new estimate of your ability. Your final score is based on all your responses and considers the difficulty of all the questions you answered. Taking additional time on the first 10 questions will not game the system and can hurt your ability to finish the test.

### **3.0 Reading Comprehension**

## 3.0 Reading Comprehension

Reading comprehension questions appear in the Verbal section of the GMAT® exam. The Verbal section uses multiple-choice questions to measure your ability to read and comprehend written material, to reason and evaluate arguments, and to correct written material to conform to standard written English. Because the Verbal section includes content from a variety of topics, you may be generally familiar with some of the material; however, neither the passages nor the questions assume knowledge of the topics discussed. Reading comprehension questions are intermingled with critical reasoning and sentence correction questions throughout the Verbal section of the test.

You will have 65 minutes to complete the Verbal section, or an average of about 1½ minutes to answer each question. Keep in mind you will need time to read the written passages—and that time is not factored into the 1½ minute average. Therefore, you should plan to proceed more quickly through the reading comprehension questions in order to give yourself enough time to read the passages thoroughly.

Reading comprehension questions begin with written passages up to 350 words long. The passages discuss topics from the social sciences, humanities, the physical or biological sciences, and such business-related fields as marketing, economics, and human resource management. The passages are accompanied by questions that will ask you to interpret the passage, apply the information you gather from the reading, and make inferences (or informed assumptions) based on the reading. For these questions, you will see a split computer screen. The written passage will remain visible on the left side as each question associated with that passage appears, in turn, on the right side. You will see only one question at a time. However, the number of questions associated with each passage may vary.

As you move through the reading comprehension sample questions, try to determine a process that works best for you. You might begin by reading a passage carefully and thoroughly. Some test-takers prefer to skim the passages the first time through, or even to read the first question before reading the passage. You may want to reread any sentences that present complicated ideas or introduce terms that are new to you. Read each question and series of answers carefully. Make sure you understand exactly what the question is asking and what the answer choices are.

If you need to, you may go back to the passage and read any parts that are relevant to answering the question. Specific portions of the passages may be indicated in the related questions.

The following pages describe what reading comprehension questions are designed to measure, present the directions that will precede questions of this type, and describe the various question types. This chapter also provides test-taking strategies, sample questions, and detailed explanations of all the questions. The explanations further illustrate the ways in which reading comprehension questions evaluate basic reading skills.

## 3.1 What Is Measured

Reading comprehension questions measure your ability to understand, analyze, and apply information and concepts presented in written form. All questions are to be answered on the basis of what is stated or implied in the reading material, and no specific prior knowledge of the material is required.

The GMAT reading comprehension questions evaluate your ability to do the following:

- **Understand words and statements.**

Although the questions do not test your vocabulary (they will not ask you to define terms), they do test your ability to interpret special meanings of terms as they are used in the reading passages. The questions will also test your understanding of the English language. These questions may ask about the overall meaning of a passage.

- **Understand logical relationships between points and concepts.**

This type of question may ask you to determine the strong and weak points of an argument or evaluate the relative importance of arguments and ideas in a passage.

- **Draw inferences from facts and statements.**

The inference questions will ask you to consider factual statements or information presented in a reading passage and reach conclusions on the basis of that information.

- **Understand and follow the development of quantitative concepts as they are presented in written material.**

This may involve the interpretation of numerical data or the use of simple arithmetic to reach conclusions about material in a passage.

There are six kinds of reading comprehension questions, each of which tests a different skill. The reading comprehension questions ask about the following areas:

### Main idea

Each passage is a unified whole—that is, the individual sentences and paragraphs support and develop one main idea or central point. Sometimes you will be told the central point in the passage itself, and sometimes it will be necessary for you to determine the central point from the overall organization or development of the passage. You may be asked in this kind of question to

- recognize a correct restatement, or paraphrasing, of the main idea of a passage
- identify the author’s primary purpose or objective in writing the passage
- assign a title that summarizes, briefly and pointedly, the main idea developed in the passage

### Supporting ideas

These questions measure your ability to comprehend the supporting ideas in a passage and differentiate them from the main idea. The questions also measure your ability to differentiate ideas that are *explicitly stated* in a passage from ideas that are *implied* by the author but are not explicitly stated. You may be asked about

- facts cited in a passage
- the specific content of arguments presented by the author in support of his or her views
- descriptive details used to support or elaborate on the main idea

Whereas questions about the main idea ask you to determine the meaning of a passage *as a whole*, questions about supporting ideas ask you to determine the meanings of individual sentences and paragraphs that *contribute* to the meaning of the passage as a whole. In other words, these questions ask for the main point of *one small part* of the passage.

## Inferences

These questions ask about ideas that are not explicitly stated in a passage but are *implied* by the author. Unlike questions about supporting details, which ask about information that is directly stated in a passage, inference questions ask about ideas or meanings that must be inferred from information that is directly stated. Authors can make their points in indirect ways, suggesting ideas without actually stating them. Inference questions measure your ability to understand an author's intended meaning in parts of a passage where the meaning is only suggested. These questions do not ask about meanings or implications that are remote from the passage; rather, they ask about meanings that are developed indirectly or implications that are specifically suggested by the author.

To answer these questions, you may have to

- logically take statements made by the author one step beyond their literal meanings
- recognize an alternative interpretation of a statement made by the author
- identify the intended meaning of a word used figuratively in a passage

If a passage explicitly states an effect, for example, you may be asked to infer its cause. If the author compares two phenomena, you may be asked to infer the basis for the comparison. You may be asked to infer the characteristics of an old policy from an explicit description of a new one. When you read a passage, you should concentrate not only on the explicit meaning of the author's words, but also on the more subtle meaning implied by those words.

## Applying information to a context outside the passage itself

These questions measure your ability to discern the relationships between situations or ideas presented by the author and other situations or ideas that might parallel those in the passage. In this kind of question, you may be asked to

- identify a hypothetical situation that is comparable to a situation presented in the passage
- select an example that is similar to an example provided in the passage
- apply ideas given in the passage to a situation not mentioned by the author
- recognize ideas that the author would probably agree or disagree with on the basis of statements made in the passage

Unlike inference questions, application questions use ideas or situations *not* taken from the passage. Ideas and situations given in a question are *like* those given in the passage, and they parallel ideas and situations in the passage; therefore, to answer the question, you must do more than recall what you read. You must recognize the essential attributes of ideas and situations presented in the passage when they appear in different words and in an entirely new context.

## Logical structure

These questions require you to analyze and evaluate the organization and logic of a passage. They may ask you

- how a passage is constructed—for instance, does it define, compare or contrast, present a new idea, or refute an idea?
- how the author persuades readers to accept his or her assertions
- the reason behind the author’s use of any particular supporting detail
- to identify assumptions that the author is making
- to assess the strengths and weaknesses of the author’s arguments
- to recognize appropriate counterarguments

These questions measure your ability not only to comprehend a passage but also to evaluate it critically. However, it is important for you to realize that logical structure questions do not rely on any kind of formal logic, nor do they require you to be familiar with specific terms of logic or argumentation. You can answer these questions using only the information in the passage and careful reasoning.

## About the style and tone

Style and tone questions ask about the expression of a passage and about the ideas in a passage that may be expressed through its diction—the author’s choice of words. You may be asked to deduce the author’s attitude to an idea, a fact, or a situation from the words that he or she uses to describe it. You may also be asked to select a word that accurately describes the tone of a passage—for instance, “critical,” “questioning,” “objective,” or “enthusiastic.”

To answer this type of question, you will have to consider the language of the passage as a whole. It takes more than one pointed, critical word to make the tone of an entire passage “critical.” Sometimes, style and tone questions ask what audience the passage was probably intended for or what type of publication it probably appeared in. Style and tone questions may apply to one small part of the passage or to the passage as a whole. To answer them, you must ask yourself what meanings are contained in the words of a passage beyond the literal meanings. Did the author use certain words because of their emotional content, or because a particular audience would expect to hear them? Remember, these questions measure your ability to discern meaning expressed by the author through his or her choice of words.

## 3.2 Test-Taking Strategies

### 1. Do not expect to be completely familiar with any of the material presented in reading comprehension passages.

You may find some passages easier to understand than others, but all passages are designed to present a challenge. If you have some familiarity with the material presented in a passage, do not let this knowledge influence your choice of answers to the questions. Answer all questions on the basis of what is *stated or implied* in the passage itself.

**2. Analyze each passage carefully, because the questions require you to have a specific and detailed understanding of the material.**

You may find it easier to do the analysis first before moving to the questions. You may find that you prefer to skim the passage the first time and read more carefully once you understand what a question asks. You may even want to read the question before reading the passage. You should choose the method most suitable for you.

**3. Focus on key words and phrases, and make every effort to avoid losing the sense of what is discussed in the passage.**

Keep the following in mind:

- Note how each fact relates to an idea or an argument.
- Note where the passage moves from one idea to the next. Separate main ideas from supporting ideas.
- Determine what conclusions are reached and why.

**4. Read the questions carefully, making certain that you understand what is asked.**

An answer choice that accurately restates information in the passage may be incorrect if it does not answer the question. If you need to, refer back to the passage for clarification.

**5. Read all the choices carefully.**

Never assume that you have selected the best answer without first reading all the choices.

**6. Select the choice that answers the question best in terms of the information given in the passage.**

Do not rely on outside knowledge of the material to help you answer the questions.

**7. Remember that comprehension—not speed—is the critical success factor when it comes to reading comprehension questions.**

## 3.3 The Directions

These are the directions that you will see for reading comprehension questions when you take the GMAT exam. If you read them carefully and understand them clearly before going to sit for the test, you will not need to spend too much time reviewing them once you are at the test center and the test is under way.

The questions in this group are based on the content of a passage. After reading the passage, choose the best answer to each question. Answer all questions following the passage on the basis of what is *stated or implied in the passage*.

## 3.4 Sample Questions

Each of the reading comprehension questions is based on the content of a passage. After reading the passage, answer all questions pertaining to it on the basis of which stated or implied in the passage. For each question, select the best answer of the choices given.

- Line Human beings, born with a drive to explore and experiment, thrive on learning. Unfortunately, corporations are oriented predominantly toward controlling employees, not fostering their learning.
- (5) Ironically, this orientation creates the very conditions that predestine employees to mediocre performances. Over time, superior performance requires superior learning, because long-term corporate survival depends on continually exploring new business and organizational opportunities that can create new sources of growth.
- To survive in the future, corporations must become “learning organizations,” enterprises that are constantly able to adapt and expand their
- (10) capabilities. To accomplish this, corporations must change how they view employees. The traditional view that a single charismatic leader should set the corporation’s direction and make key decisions is rooted in an individualistic worldview. In an
- (15) increasingly interdependent world, such a view is no longer viable. In learning organizations, thinking and acting are integrated at all job levels. Corporate leadership is shared, and leaders become designers, teachers, and stewards, roles requiring
- (20) new skills: the ability to build shared vision, to reveal and challenge prevailing mental models, and to foster broader, more integrated patterns of thinking. In short, leaders in learning organizations are responsible for building organizations in which
- (25) employees are continually learning new skills and expanding their capabilities to shape their future.

### Questions related to the passage

\*RC00184-01

1. According to the passage, traditional corporate leaders differ from leaders in learning organizations in that the former
- encourage employees to concentrate on developing a wide range of skills
  - enable employees to recognize and confront dominant corporate models and to develop alternative models
  - make important policy decisions alone and then require employees in the corporation to abide by those decisions
  - instill confidence in employees because of their willingness to make risky decisions and accept their consequences
  - are concerned with offering employees frequent advice and career guidance

\*RC00184-02

2. Which of the following best describes employee behavior encouraged within learning organizations, as such organizations are described in the passage?
- Carefully defining one’s job description and taking care to avoid deviations from it
  - Designing mentoring programs that train new employees to follow procedures that have been used for many years
  - Concentrating one’s efforts on mastering one aspect of a complicated task
  - Studying an organizational problem, preparing a report, and submitting it to a corporate leader for approval
  - Analyzing a problem related to productivity, making a decision about a solution, and implementing that solution

\*These numbers correlate with the online test bank question number. See the GMAT Verbal Review Online Index in the back of this book.

RC00184-03

3. According to the author of the passage, corporate leaders of the future should do which of the following?
- (A) They should encourage employees to put long-term goals ahead of short-term profits.
  - (B) They should exercise more control over employees in order to constrain production costs.
  - (C) They should redefine incentives for employees' performance improvement.
  - (D) They should provide employees with opportunities to gain new skills and expand their capabilities.
  - (E) They should promote individual managers who are committed to established company policies.

RC00184-04

4. The primary purpose of the passage is to
- (A) endorse a traditional corporate structure
  - (B) introduce a new approach to corporate leadership and evaluate criticisms of it
  - (C) explain competing theories about management practices and reconcile them
  - (D) contrast two typical corporate organizational structures
  - (E) propose an alternative to a common corporate approach

- Line Structural unemployment—the unemployment that remains even at the peak of the economy's upswings—is caused by an imbalance between the types and locations of available employment on the one hand and the qualifications and locations of workers on the other hand. When such an imbalance exists, both labor shortages and unemployment may occur, despite a balance between supply and demand for labor in the economy as a whole.
- (5) (10) Because technological change is likely to displace some workers, it is a major factor in producing structural unemployment. While technological advance almost invariably results in shifts in demands for different types of workers, it does not necessarily result in unemployment. Relatively small or gradual changes in demand are likely to cause little unemployment. In the individual firm or even in the labor market as a whole, normal attrition may be sufficient to reduce the size of the work force in (15) the affected occupations. Relatively large or rapid changes, however, can cause serious problems. Workers may lose their jobs and find themselves without the skills necessary to obtain new jobs. Whether this displacement leads to structural (20) unemployment depends on the amount of public and private sector resources devoted to retraining and placing those workers. Workers can be encouraged to move where there are jobs, to reeducate or retrain themselves, or to retire. In addition, other factors (25) affecting structural unemployment, such as capital movement, can be controlled.
- Increased structural unemployment, should it occur, makes it difficult for the economy to achieve desired low rates of unemployment along with low rates of inflation.
- (30) (35) If there is a growing pool of workers who lack the necessary skills for the available jobs, increases in total labor demand will rapidly generate shortages of qualified workers. As the wages of those workers are bid up, labor costs, and thus prices, rise. This phenomenon (40) may be an important factor in the rising trend, observed for the past two decades, of unemployment combined with inflation. Government policy has placed a priority on reducing inflation, but these efforts have nevertheless caused unemployment to increase.

Questions 5–10 refer to the passage.

RC00144-03

5. All of the following are mentioned as ways of controlling the magnitude of structural unemployment EXCEPT
- (A) using public funds to create jobs  
 (B) teaching new skills to displaced workers  
 (C) allowing displaced workers to retire  
 (D) controlling the movement of capital  
 (E) encouraging workers to move to where jobs are available
- RC00144-04
6. The passage suggests that a potential outcome of higher structural unemployment is
- (A) increased public spending for social services  
 (B) placement of workers in jobs for which they are not qualified  
 (C) higher wages for those workers who have skills that are in demand  
 (D) an increase in the length of time jobs remain unfilled  
 (E) a shift in the government's economic policy priorities

RC00144-05

7. It can be inferred from the passage that even when there are unemployed workers, labor shortages are still likely to occur if
- the inflation rate is unusually high
  - there is insufficient technological innovation
  - the level of structural unemployment is exceptionally low
  - the jobs available in certain places require skills that the labor force in those areas lacks
  - the workers in some industries are dissatisfied with the pay offered in those industries

RC00144-06

8. The passage suggests that the phenomenon of combined unemployment and inflation is
- a socioeconomic problem that can only be addressed by government intervention
  - a socioeconomic problem that can be characteristic of periods of structural unemployment
  - an economic problem that results from government intervention in management-labor relations
  - an economic problem that results from imperfect applications of technology
  - an economic problem that can be eliminated by relatively small changes in the labor force

RC00144-07

9. The passage is primarily concerned with
- clarifying the definition of a concept
  - proposing a way to eliminate an undesirable condition
  - discussing the sources and consequences of a problem
  - suggesting ways to alleviate the effects of a particular social policy
  - evaluating the steps that have been taken to correct an imbalance

RC00144-08

10. According to the passage, small downward shifts in the demand for labor will not usually cause unemployment because
- such shifts are frequently accompanied by upswings in the economy
  - such shifts usually occur slowly
  - workers can be encouraged to move to where there are jobs
  - normal attrition is often sufficient to reduce the size of the work force
  - workers are usually flexible enough to learn new skills and switch to new jobs

Line In 1971 researchers hoping to predict earthquakes in the short term by identifying precursory phenomena (those that occur a few days before large quakes but not otherwise) turned their attention to changes  
 (5) in seismic waves that had been detected prior to earthquakes. An explanation for such changes was offered by "dilatancy theory," based on a well-known phenomenon observed in rocks in the laboratory: as stress builds, microfractures in rock close, decreasing the rock's volume. But as stress continues to increase, the rock begins to crack and expand in volume, allowing groundwater to seep in, weakening the rock. According to this theory, such effects could lead to several precursory phenomena in  
 (10) the field, including a change in the velocity of seismic waves, and an increase in small, nearby tremors.

Researchers initially reported success in identifying these possible precursors, but subsequent analyses of their data proved disheartening. Seismic waves  
 (15) with unusual velocities were recorded before some earthquakes, but while the historical record confirms that most large earthquakes are preceded by minor tremors, these foreshocks indicate nothing about the magnitude of an impending quake and are  
 (20) indistinguishable from other minor tremors that occur without large earthquakes.

In the 1980s, some researchers turned their efforts from short-term to long-term prediction. Noting that earthquakes tend to occur repeatedly in  
 (25) certain regions, Lindh and Baker attempted to identify patterns of recurrence, or earthquake cycles, on which to base predictions. In a study of earthquake-prone sites along the San Andreas Fault, they determined that quakes occurred at intervals of approximately 22 years near one site and concluded that there was a 95 percent probability of an earthquake in that area by 1992. The earthquake did not occur within the time frame predicted, however.

Line Evidence against the kind of regular  
 (40) earthquake cycles that Lindh and Baker tried to establish has come from a relatively new field, paleoseismology. Paleoseismologists have unearthed and dated geological features such as fault scarps that were caused by  
 (45) earthquakes thousands of years ago. They have determined that the average interval between ten earthquakes that took place at one site along the San Andreas Fault in the past two millennia was 132 years, but individual intervals ranged greatly,  
 (50) from 44 to 332 years.

**Questions 11–16 refer to the reading.**

RC00113-01

11. The passage is primarily concerned with
- (A) explaining why one method of earthquake prediction has proven more practicable than an alternative method
  - (B) suggesting that accurate earthquake forecasting must combine elements of long-term and short-term prediction
  - (C) challenging the usefulness of dilatancy theory for explaining the occurrence of precursory phenomena
  - (D) discussing the deficiency of two methods by which researchers have attempted to predict the occurrence of earthquakes
  - (E) describing the development of methods for establishing patterns in the occurrence of past earthquakes

RC00113-02

12. According to the passage, laboratory evidence concerning the effects of stress on rocks might help account for
- differences in magnitude among earthquakes
  - certain phenomena that occur prior to earthquakes
  - variations in the intervals between earthquakes in a particular area
  - differences in the frequency with which earthquakes occur in various areas
  - the unreliability of short-term earthquake predictions

RC00113-03

13. It can be inferred from the passage that one problem with using precursory phenomena to predict earthquakes is that minor tremors
- typically occur some distance from the sites of the large earthquakes that follow them
  - are directly linked to the mechanisms that cause earthquakes
  - are difficult to distinguish from major tremors
  - have proven difficult to measure accurately
  - are not always followed by large earthquakes

RC00113-04

14. According to the passage, some researchers based their research about long-term earthquake prediction on which of the following facts?
- The historical record confirms that most earthquakes have been preceded by minor tremors.
  - The average interval between earthquakes in one region of the San Andreas Fault is 132 years.
  - Some regions tend to be the site of numerous earthquakes over the course of many years.
  - Changes in the volume of rock can occur as a result of building stress and can lead to the weakening of rock.
  - Paleoseismologists have been able to unearth and date geological features caused by past earthquakes.

RC00113-05

15. The passage suggests which of the following about the paleoseismologists' findings described in lines 42–50?
- They suggest that the frequency with which earthquakes occurred at a particular site decreased significantly over the past two millennia.
  - They suggest that paleoseismologists may someday be able to make reasonably accurate long-term earthquake predictions.
  - They suggest that researchers may someday be able to determine which past occurrences of minor tremors were actually followed by large earthquakes.
  - They suggest that the recurrence of earthquakes in earthquake-prone sites is too irregular to serve as a basis for earthquake prediction.
  - They indicate that researchers attempting to develop long-term methods of earthquake prediction have overlooked important evidence concerning the causes of earthquakes.

RC00113-07

16. The author implies which of the following about the ability of the researchers mentioned in line 18 to predict earthquakes?
- They can identify when an earthquake is likely to occur but not how large it will be.
  - They can identify the regions where earthquakes are likely to occur but not when they will occur.
  - They are unable to determine either the time or the place that earthquakes are likely to occur.
  - They are likely to be more accurate at short-term earthquake prediction than at long-term earthquake prediction.
  - They can determine the regions where earthquakes have occurred in the past but not the regions where they are likely to occur in the future.

- Line A key decision required of advertising managers is whether a "hard-sell" or "soft-sell" strategy is appropriate for a specific target market. The hard-sell approach involves the use of direct, forceful claims regarding the benefits of the advertised brand over competitors' offerings. In contrast, the soft-sell approach involves the use of advertising claims that imply superiority more subtly.
- (5) One positive aspect of the hard-sell approach is its use of very simple and straightforward product claims presented as explicit conclusions, with little room for confusion regarding the advertiser's message. However, some consumers may resent being told what to believe and some may distrust
- (10) the message. Resentment and distrust often lead to counterargumentation and to boomerang effects where consumers come to believe conclusions diametrically opposed to conclusions endorsed in advertising claims. By contrast, the risk of
- (15) boomerang effects is greatly reduced with soft-sell approaches. One way to implement the soft-sell approach is to provide information that implies the main conclusions the advertiser wants the consumer to draw, but leave the conclusions
- (20) themselves unstated. Because consumers are invited to make up their own minds, implicit conclusions reduce the risk of resentment, distrust, and counterargumentation.
- Recent research on consumer memory and
- (25) judgment suggests another advantage of implicit conclusions. Beliefs or conclusions that are self-generated are more accessible from memory than beliefs from conclusions provided explicitly by other individuals, and thus have a greater impact on
- (30) judgment and decision making. Moreover, self-generated beliefs are often perceived as more accurate and valid than the beliefs of others, because other individuals may be perceived as less knowledgeable, or may be perceived as
- (35) manipulative or deliberately misleading.
- (40)

Line Despite these advantages, implicit conclusions may not always be more effective than explicit conclusions. One risk is that some consumers may fail to draw their own conclusions and thus miss the point of the message. Inferential activity is likely only when consumers are motivated and able to engage in effortful cognitive processes. Another risk is that some consumers may draw conclusions other than the one intended. Even if inferential

(45) activity is likely there is no guarantee that consumers will follow the path provided by the advertiser. Finally, a third risk is that consumers may infer the intended conclusion but question the validity of their inference.

**Questions 17–23 refer to the passage.**

RC00492-01

17. It can be inferred from the passage that one reason an advertiser might prefer a hard-sell approach to a soft-sell approach is that
- (A) the risks of boomerang effects are minimized when the conclusions an advertiser wants the consumer to draw are themselves left unstated
- (B) counterargumentation is likely from consumers who fail to draw their own conclusions regarding an advertising claim
- (C) inferential activity is likely to occur even if consumers perceive themselves to be more knowledgeable than the individuals presenting product claims
- (D) research on consumer memory suggests that the explicit conclusions provided by an advertiser using the hard-sell approach have a significant impact on decision making
- (E) the information presented by an advertiser using the soft-sell approach may imply different conclusions to different consumers

RC00492-02

18. Each of the following is mentioned in the passage as a characteristic of the hard-sell approach EXCEPT:
- Its overall message is readily grasped.
  - It appeals to consumers' knowledge about the product.
  - It makes explicit claims that the advertised brand is superior to other brands.
  - It uses statements that are expressed very clearly.
  - It makes claims in the form of direct conclusions.

RC00492-03

19. It can be inferred from the passage that advertisers could reduce one of the risks discussed in the last paragraph if they were able to provide
- motivation for consumers to think about the advertisement's message
  - information that implies the advertiser's intended conclusion but leaves that conclusion unstated
  - subtle evidence that the advertised product is superior to that of competitors
  - information comparing the advertised product with its competitors
  - opportunity for consumers to generate their own beliefs or conclusions

RC00492-04

20. The primary purpose of the passage is to
- point out the risks involved in the use of a particular advertising strategy
  - make a case for the superiority of one advertising strategy over another
  - illustrate the ways in which two advertising strategies may be implemented
  - present the advantages and disadvantages of two advertising strategies
  - contrast the types of target markets for which two advertising strategies are appropriate

RC00492-05

21. Which of the following best describes the function of the sentence in lines 25–28 in the context of the passage as a whole?
- It reiterates a distinction between two advertising strategies that is made in the first paragraph.
  - It explains how a particular strategy avoids a drawback described earlier in the paragraph.

- It suggests that a risk described earlier in the paragraph is less serious than some researchers believe it to be.
- It outlines why the strategy described in the previous sentence involves certain risks for an advertiser.
- It introduces an argument that will be refuted in the following paragraph.

RC00492-06

22. It can be inferred from the passage that one situation in which the boomerang effect often occurs is when consumers
- have been exposed to forceful claims that are diametrically opposed to those in an advertiser's message
  - have previous self-generated beliefs or conclusions that are readily accessible from memory
  - are subjected to advertising messages that are targeted at specific markets to which those consumers do not belong
  - are confused regarding the point of the advertiser's message
  - come to view the advertiser's message with suspicion

RC00492-07

23. It can be inferred from the passage that the research mentioned in line 29 supports which of the following statements?
- Implicit conclusions are more likely to capture accurately the point of the advertiser's message than are explicit conclusions.
  - Counterargumentation is less likely to occur if an individual's beliefs or conclusions are readily accessible from memory.
  - The hard-sell approach results in conclusions that are more difficult for the consumer to recall than are conclusions resulting from the soft-sell approach.
  - When the beliefs of others are presented as definite and forceful claims, they are perceived to be as accurate as self-generated beliefs.
  - Despite the advantages of implicit conclusions, the hard-sell approach involves fewer risks for the advertiser than does the soft-sell approach.

- Line Suppose we were in a spaceship in free fall, where objects are weightless, and wanted to know a small solid object's mass. We could not simply balance that object against another of known weight, as we would on Earth. The unknown mass could be determined, however, by placing the object on a spring scale and swinging the scale in a circle at the end of a string. The scale would measure the tension in the string, which would depend on both
- (5) the speed of revolution and the mass of the object. The tension would be greater, the greater the mass or the greater the speed of revolution. From the measured tension and speed of whirling, we could determine the object's mass.
- (10) Astronomers use an analogous procedure to "weigh" double-star systems. The speed with which the two stars in a double-star system circle one another depends on the gravitational force between them, which holds the system together. This
- (15) attractive force, analogous to the tension in the string, is proportional to the stars' combined mass, according to Newton's law of gravitation. By observing the time required for the stars to circle each other (the period) and measuring the distance
- (20) between them, we can deduce the restraining force, and hence the masses.
- (25)

*Questions 24–26 refer to the passage.*

RC00222-01

24. It can be inferred from the passage that the two procedures described in the passage have which of the following in common?
- (A) They have been applied in practice.  
 (B) They rely on the use of a device that measures tension.  
 (C) Their purpose is to determine an unknown mass.  
 (D) They can only be applied to small solid objects.  
 (E) They involve attraction between objects of similar mass.

RC00222-02

25. According to the passage, the tension in the string mentioned in lines 8–9 is analogous to which of the following aspects of a double-star system?
- (A) The speed with which one star orbits the other  
 (B) The gravitational attraction between the stars  
 (C) The amount of time it takes for the stars to circle one another  
 (D) The distance between the two stars  
 (E) The combined mass of the two stars

RC00222-03

26. Which of the following best describes the relationship between the first and the second paragraph of the passage?
- (A) The first paragraph provides an illustration useful for understanding a procedure described in the second paragraph.  
 (B) The first paragraph describes a hypothetical situation whose plausibility is tested in the second paragraph.  
 (C) The first paragraph evaluates the usefulness of a procedure whose application is described further in the second paragraph.  
 (D) The second paragraph provides evidence to support a claim made in the first paragraph.  
 (E) The second paragraph analyzes the practical implications of a methodology proposed in the first paragraph.

RC00222-04

27. The author of the passage mentions observations regarding the period of a double-star system as being useful for determining
- (A) the distance between the two stars in the system
  - (B) the time it takes for each star to rotate on its axis
  - (C) the size of the orbit the system's two stars occupy
  - (D) the degree of gravitational attraction between the system's stars
  - (E) the speed at which the star system moves through space

Line The dry mountain ranges of the western United States contain rocks dating back 440 to 510 million years, to the Ordovician period, and teeming with evidence of tropical marine life. This rock record (5) provides clues about one of the most significant radiations (periods when existing life-forms gave rise to variations that would eventually evolve into entirely new species) in the history of marine invertebrates. During this radiation the number of marine biological (10) families increased greatly, and these families included species that would dominate the marine ecosystems of the area for the next 215 million years. Although the radiation spanned tens of millions of years, major changes in many species occurred during a (15) geologically short time span within the radiation and, furthermore, appear to have occurred worldwide, suggesting that external events were major factors in the radiation. In fact, there is evidence of major ecological and geological changes during this period: (20) the sea level dropped drastically and mountain ranges were formed. In this instance, rather than leading to large-scale extinctions, these kinds of environmental changes may have resulted in an enriched pattern of habitats and nutrients, which in turn gave rise to the (25) Ordovician radiation. However, the actual relationship between these environmental factors and the diversification of life-forms is not yet fully understood.

Questions 28–30 refer to the passage.

RC00267-01

28. The passage is primarily concerned with
- evaluating the evidence of a major geologic period and determining its duration
  - describing an evolutionary phenomenon and speculating about its cause
  - explaining the mechanisms through which marine life-forms evolved during a particular period
  - analyzing the impact on later life-forms of an important evolutionary development
  - contrasting a period of evolutionary change with other such periods
- RC00267-02
29. Which of the following can be inferred from the passage regarding the geologic changes that occurred during the Ordovician period?
- They were more drastic than those associated with other radiations.
  - They may have created conditions favorable to the evolution of many new life-forms.
  - They may have caused the extinction of many of the marine species living in shallow waters.
  - They may have been a factor in the development of new species adapted to living both on land and in water.
  - They hastened the formation of the extensive dry regions found in the western United States.

RC00267-03

30. Which of the following best describes the function of the last sentence of the passage?
- (A) It points out that the events described in the passage may be atypical.
- (B) It alludes to the fact that there is disagreement in the scientific community over the importance of the Ordovician radiation.
- (C) It concludes that the evidence presented in the passage is insufficient to support the proposed hypothesis because it comes from a limited geographic area.
- (D) It warns the reader against seeing a connection between the biological and geologic changes described in the passage.
- (E) It alerts the reader that current knowledge cannot completely explain the relationship suggested by the evidence presented in the passage.

- Line Seventeenth-century philosopher John Locke stated that as much as 99 percent of the value of any useful product can be attributed to “the effects of labor.” For Locke’s intellectual heirs it was only a short step (5) to the “labor theory of value,” whose formulators held that 100 percent of the value of any product is generated by labor (the human work needed to produce goods) and that therefore the employer who appropriates any part of the product’s value as profit (10) is practicing theft.
- Although human effort is required to produce goods for the consumer market, effort is also invested in making capital goods (tools, machines, etc.), which are used to facilitate the production of consumer (15) goods. In modern economies about one-third of the total output of consumer goods is attributable to the use of capital goods. Approximately two-thirds of the income derived from this total output is paid out to workers as wages and salaries, the remaining (20) third serving as compensation to the owners of the capital goods. Moreover, part of this remaining third is received by workers who are shareholders, pension beneficiaries, and the like. The labor theory of value systematically disregards the productive contribution (25) of capital goods—a failing for which Locke must bear part of the blame.

Quotations 1–6 refer to the passage.

RCQ0141-01

31. The author of the passage is primarily concerned with
- criticizing Locke’s economic theories
  - discounting the contribution of labor in a modern economy
  - questioning the validity of the labor theory of value
  - arguing for a more equitable distribution of business profits
  - contending that employers are overcompensated for capital goods

RCQ0141-02

32. According to the author of the passage, which of the following is true of the distribution of the income derived from the total output of consumer goods in a modern economy?
- Workers receive a share of this income that is significantly smaller than the value of their labor as a contribution to total output.
  - Owners of capital goods receive a share of this income that is significantly greater than the contribution to total output attributable to the use of capital goods.
  - Owners of capital goods receive a share of this income that is no greater than the proportion of total output attributable to the use of capital goods.
  - Owners of capital goods are not fully compensated for their investment because they pay out most of their share of this income to workers as wages and benefits.
  - Workers receive a share of this income that is greater than the value of their labor because the labor theory of value overestimates their contribution to total output.

RC00141-04

33. Which of the following statements, if true, would most effectively counter the author's criticism of Locke at the end of the passage?
- Locke was unfamiliar with the labor theory of value as it was formulated by his intellectual heirs.
  - In Locke's day, there was no possibility of ordinary workers becoming shareholders or pension beneficiaries.
  - During Locke's lifetime, capital goods did not make a significant productive contribution to the economy.
  - The precise statistical calculation of the productive contributions of labor and capital goods is not possible without computers.
  - The terms "capital goods" and "consumer goods" were coined by modern economists and do not appear in Locke's writings.

RC00141-05

34. Which of the following best describes the organization of the passage?
- The author explores the origins of a theory and explains why the theory never gained widespread acceptance.
  - The author introduces the premise of a theory, evaluates the premise by relating it to objective reality, then proposes a modification of the theory.
  - After quoting a well-known authority, the author describes the evolution of a theory, then traces its modern form back to the original quotation.
  - After citing a precursor of a theory, the author outlines and refutes the theory, then links its flaw to the precursor.
  - After tracing the roots of a theory, the author attempts to undermine the theory by discrediting its originator.

RC00141-06

35. Which of the following arguments would a proponent of the labor theory of value, as it is presented in the first paragraph, be most likely to use in response to lines 23–25?
- The productive contributions of workers and capital goods cannot be compared because the productive life span of capital goods is longer than that of workers.
  - The author's analysis of the distribution of income is misleading because only a small percentage of workers are also shareholders.
  - Capital goods are valuable only insofar as they contribute directly to the production of consumer goods.
  - The productive contribution of capital goods must be discounted because capital goods require maintenance.
  - The productive contribution of capital goods must be attributed to labor because capital goods are themselves products of labor.

RC00141-07

36. The author of the passage implies which of the following regarding the formulators of the labor theory of value?
- They came from a working-class background.
  - Their views were too radical to have popular appeal.
  - At least one of them was a close contemporary of Locke.
  - They were familiar with Locke's views on the relationship between labor and the value of products.
  - They underestimated the importance of consumer goods in a modern economy.

Line In 1994, a team of scientists led by David McKay began studying the meteorite ALH84001, which had been discovered in Antarctica in 1984. Two years later, the McKay team announced that ALH84001, which scientists generally agree originated on Mars, contained compelling evidence that life once existed on Mars. This evidence includes the discovery of organic molecules in ALH84001, the first ever found in Martian rock. Organic (5) molecules—complex, carbon-based compounds—form the basis for terrestrial life. The organic molecules found in ALH84001 are polycyclic aromatic hydrocarbons, or PAHs. When microbes die, their organic material often decays into PAHs.

(10) (15) Skepticism about the McKay team's claim remains, however. For example, ALH84001 has been on Earth for 13,000 years, suggesting to some scientists that its PAHs might have resulted from terrestrial contamination. However, McKay's team has demonstrated that the concentration of PAHs increases as one looks deeper into (20) ALH84001, contrary to what one would expect from terrestrial contamination. The skeptics' strongest argument, however, is that processes unrelated to organic life can easily produce all the evidence (25) found by McKay's team, including PAHs. For example, star formation produces PAHs. Moreover, PAHs frequently appear in other meteorites, and no one attributes their presence to life processes. Yet (30) McKay's team notes that the particular combination of PAHs in ALH84001 is more similar to the combinations produced by decaying organisms than to those originating from nonbiological processes.

## Questions 37–40: Inference

RC00388-01

37. The primary purpose of the passage is to
- describe new ways of studying the possibility that life once existed on Mars
  - revise a theory regarding the existence of life on Mars in light of new evidence
  - reconcile conflicting viewpoints regarding the possibility that life once existed on Mars
  - evaluate a recently proposed argument concerning the origin of ALH84001
  - describe a controversy concerning the significance of evidence from ALH84001

RC00388-02

38. The passage asserts which of the following about the claim that ALH84001 originated on Mars?
- It was initially proposed by the McKay team of scientists.
  - It is not a matter of widespread scientific dispute.
  - It has been questioned by some skeptics of the McKay team's work.
  - It has been undermined by recent work on PAHs.
  - It is incompatible with the fact that ALH84001 has been on Earth for 13,000 years.

RC00388-03

39. The passage suggests that the fact that ALH84001 has been on Earth for 13,000 years has been used by some scientists to support which of the following claims about ALH84001?
- ALH84001 may not have originated on Mars.
  - ALH84001 contains PAHs that are the result of nonbiological processes.
  - ALH84001 may not have contained PAHs when it landed on Earth.
  - The organic molecules found in ALH84001 are not PAHs.
  - The organic molecules found in ALH84001 could not be the result of terrestrial contamination.

RC00388-04

40. The passage suggests that if a meteorite contained PAHs that were the result of terrestrial contamination, then one would expect which of the following to be true?
- (A) The meteorite would have been on Earth for more than 13,000 years.
  - (B) The meteorite would have originated from a source other than Mars.
  - (C) The PAHs contained in the meteorite would have originated from nonbiological processes.
  - (D) The meteorite would contain fewer PAHs than most other meteorites contain.
  - (E) The PAHs contained in the meteorite would be concentrated toward the meteorite's surface.

RC00388-05

41. Which of the following best describes the function of the last sentence of the first paragraph?
- (A) It identifies a possible organic source for the PAHs found in ALH84001.
  - (B) It describes a feature of PAHs that is not shared by other types of organic molecules.
  - (C) It explains how a characteristic common to most meteorites originates.
  - (D) It suggests how the terrestrial contamination of ALH84001 might have taken place.
  - (E) It presents evidence that undermines the claim that life once existed on Mars.

RC00388-06

42. The passage suggests that McKay's team would agree with which of the following regarding the PAHs produced by nonorganic processes?
- (A) These PAHs are not likely to be found in any meteorite that has been on Earth for 13,000 years or more.
  - (B) These PAHs are not likely to be found in any meteorite that originated from Mars.
  - (C) These PAHs are not likely to be produced by star formation.
  - (D) These PAHs are likely to be found in combinations that distinguish them from the PAHs produced by organic processes.
  - (E) These PAHs are likely to be found in fewer meteorites than the PAHs produced by organic processes.

- Line Exactly when in the early modern era Native Americans began exchanging animal furs with Europeans for European-made goods is uncertain. What is fairly certain, even though they left
- (5) no written evidence of having done so, is that the first Europeans to conduct such trade during the modern period were fishing crews working the waters around Newfoundland. Archaeologists had noticed that sixteenth-century Native American
- (10) sites were strewn with iron bolts and metal pins. Only later, upon reading Nicolas Denys's 1672 account of seventeenth-century European settlements in North America, did archaeologists realize that sixteenth-century European fishing
- (15) crews had dismantled and exchanged parts of their ships for furs.

By the time Europeans sailing the Atlantic coast of North America first documented the fur trade, it was apparently well underway. The first to record such trade—the captain of a Portuguese vessel sailing from Newfoundland in 1501—observed that a Native American aboard the ship wore Venetian silver earrings. Another early chronicler noted in 1524 that Native Americans living along the coast of what is now

(20) New England had become selective about European trade goods: they accepted only knives, fishhooks, and sharp metal. By the time Cartier sailed the Saint Lawrence River ten years later, Native Americans had traded with Europeans for more than thirty years,

(25) perhaps half a century.

## QUESTIONS 43–51 REFER TO THE PASSAGE

RC00204-01

43. The author of the passage draws conclusions about the fur trade in North America from all of the following sources EXCEPT
- (A) Cartier's accounts of trading with Native Americans
- (B) a seventeenth-century account of European settlements
- (C) a sixteenth-century account written by a sailing vessel captain
- (D) archaeological observations of sixteenth-century Native American sites
- (E) a sixteenth-century account of Native Americans in what is now New England

RC00204-02

44. The passage suggests that which of the following is partially responsible for the difficulty in establishing the precise date when the fur trade in North America began?
- (A) A lack of written accounts before that of Nicolas Denys in 1672
- (B) A lack of written documentation before 1501
- (C) Ambiguities in the evidence from Native American sources
- (D) Uncertainty about Native American trade networks
- (E) Uncertainty about the origin of artifacts supposedly traded by European fishing crews for furs

RC00204-03

45. Which of the following, if true, most strengthens the author's assertion in the first sentence of the second paragraph?
- (A) When Europeans retraced Cartier's voyage in the first years of the seventeenth century, they frequently traded with Native Americans.
- (B) Furs from beavers, which were plentiful in North America but nearly extinct in Europe, became extremely fashionable in Europe in the final decades of the sixteenth century.
- (C) Firing arms were rarely found on sixteenth-century Native American sites or on European lists of trading goods since such arms required frequent maintenance and repair.
- (D) Europeans and Native Americans had established trade protocols, such as body language assuring one another of their peaceful intentions, that antedate the earliest records of trade.
- (E) During the first quarter of the sixteenth century, an Italian explorer recorded seeing many Native Americans with what appeared to be copper beads, though they may have been made of indigenous copper.

RC00204-04

46. Which of the following best describes the primary function of lines 11–16?
- It offers a reconsideration of a claim made in the preceding sentence.
  - It reveals how archaeologists arrived at an interpretation of the evidence mentioned in the preceding sentence.
  - It shows how scholars misinterpreted the significance of certain evidence mentioned in the preceding sentence.
  - It identifies one of the first significant accounts of seventeenth-century European settlements in North America.
  - It explains why Denys's account of seventeenth-century European settlements is thought to be significant.

RC00204-05

47. It can be inferred from the passage that the author would agree with which of the following statements about the fur trade between Native Americans and Europeans in the early modern era?
- This trade may have begun as early as the 1480s.
  - This trade probably did not continue much beyond the 1530s.
  - This trade was most likely at its peak in the mid-1520s.
  - This trade probably did not begin prior to 1500.
  - There is no written evidence of this trade prior to the seventeenth century.

RC00204-06

48. Which of the following can be inferred from the passage about the Native Americans mentioned in line 24?
- They had little use for decorative objects such as earrings.
  - They became increasingly dependent on fishing between 1501 and 1524.
  - By 1524, only certain groups of Europeans were willing to trade with them.
  - The selectivity of their trading choices made it difficult for them to engage in widespread trade with Europeans.
  - The selectivity of their trading choices indicates that they had been trading with Europeans for a significant period of time prior to 1524.

RC00204-07

49. The passage supports which of the following statements about sixteenth-century European fishing crews working the waters off Newfoundland?
- They wrote no accounts of their fishing voyages.
  - They primarily sailed under the flag of Portugal.
  - They exchanged ship parts with Native Americans for furs.
  - They commonly traded jewelry with Native Americans for furs.
  - They carried surplus metal implements to trade with Native Americans for furs.

RC00204-08

50. Which of the following can be inferred from the passage about evidence pertaining to the fur trade between Native Americans and Europeans in the early modern era?
- A lack of written evidence has made it difficult to establish which Europeans first participated in this trade.
  - In general, the physical evidence pertaining to this trade has been more useful than the written evidence has been.
  - There is more written evidence pertaining to this trade from the early part of the sixteenth century than from later in that century.
  - The earliest written evidence pertaining to this trade dates from a time when the trade was already well established.
  - Some important pieces of evidence pertaining to this trade, such as Denys's 1672 account, were long overlooked by archaeologists.

RC00204-09

51. The passage suggests which of the following about the sixteenth-century Native Americans who traded with Europeans on the coast of what is now called New England?
- By 1524 they had become accustomed to exchanging goods with Europeans.
  - They were unfamiliar with metals before encountering Europeans.
  - They had no practical uses for European goods other than metals and metal implements.
  - By 1524 they had become disdainful of European traders because such traders had treated them unfairly in the past.
  - By 1524 they demanded only the most prized European goods because they had come to realize how valuable furs were on European markets.

- Line Determining whether a given population of animals constitutes a distinct species can be difficult because no single accepted definition of the term exists. One approach, called the biological species concept, bases the definition on reproductive compatibility. According to this view, a species is a group of animals that can mate with one another to produce fertile offspring but cannot mate successfully with members of a different group. Yet this idea can be too restrictive. First, mating between groups labeled as different species (hybridization), as often occurs in the canine family, is quite common in nature. Second, sometimes the differences between two populations might not prevent them from interbreeding, even though they are dissimilar in traits unrelated to reproduction; some biologists question whether such disparate groups should be considered a single species. A third problem with the biological species concept is that investigators cannot always determine whether two groups that live in different places are capable of interbreeding.
- When the biological species concept is difficult to apply, some investigators use phenotype, an organism's observable characteristics, instead. Two groups that have evolved separately are likely to display measurable differences in many of their traits, such as skull size or width of teeth. If the distribution of measurements from one group does not overlap with those of another, the two groups might reasonably be considered distinct species.

Questions 52–55 refer to the passage.

RC00201-01

52. The passage is primarily concerned with
- describing the development of the biological species concept
  - responding to a critique of reproductive compatibility as a criterion for defining a species
  - considering two different approaches to identifying biological species
  - pointing out the advantage of one method of distinguishing related species
  - identifying an obstacle to the classification of biological species

RC00201-03

53. The author of the passage mentions “groups that live in different places” (line 21) most probably in order to
- point out a theoretical inconsistency in the biological species concept
  - offer evidence in support of the biological species concept
  - identify an obstacle to the application of the biological species concept
  - note an instance in which phenotype classification is customarily used
  - describe an alternative to the biological species concept

RC00201-04

54. With which of the following statements regarding the classification of individual species would the author most likely agree?
- (A) Phenotype comparison may help to classify species when application of the biological species concept proves inconclusive.
  - (B) Because no standard definition exists for what constitutes a species, the classification of animal populations is inevitably an arbitrary process.
  - (C) The criteria used by biologists to classify species have not been based on adequate research.
  - (D) The existence of hybrids in wild animal species is the chief factor casting doubt on the usefulness of research into reproductive compatibility as a way of classifying species.
  - (E) Phenotype overlap should be used as the basic criterion for standardizing species classification.

RC00201-05

55. Which of the following best describes the function of lines 10–13?
- (A) It elaborates the definition of the biological species concept given in a previous sentence.
  - (B) It develops a point about the biological species concept made in the previous sentence.
  - (C) It states the author's central point about the biological species concept.
  - (D) It identifies a central assumption underlying the biological species concept.
  - (E) It demonstrates why the biological species concept is invalid.

- Line Researchers studying how genes control animal behavior have had to deal with many uncertainties. In the first place, most behaviors are governed by more than one gene, and until recently geneticists  
(5) had no method for identifying the multiple genes involved. In addition, even when a single gene is found to control a behavior, researchers in different fields do not necessarily agree that it is a “behavioral gene.” Neuroscientists, whose interest  
(10) in genetic research is to understand the nervous system (which generates behavior), define the term broadly. But ethologists—specialists in animal behavior—are interested in evolution, so they define the term narrowly. They insist that mutations  
(15) in a behavioral gene must alter a specific normal behavior and not merely make the organism ill, so that the genetically induced behavioral change will provide variation that natural selection can act upon, possibly leading to the evolution of a new species.  
(20) For example, in the fruit fly, researchers have identified the gene Shaker, mutations in which cause flies to shake violently under anesthesia. Since shaking is not healthy, ethologists do not consider Shaker a behavioral gene. In contrast, ethologists  
(25) do consider the gene period (per), which controls the fruit fly’s circadian (24-hour) rhythm, a behavioral gene because flies with mutated per genes are healthy; they simply have different rhythms.

Questions 56–58 refer to the passage.

RC00322-01

56. The primary purpose of the passage is to
- summarize findings in an area of research
  - discuss different perspectives on a scientific question
  - outline the major questions in a scientific discipline
  - illustrate the usefulness of investigating a research topic
  - reconcile differences between two definitions of a term

RC00322-02

57. The passage suggests that neuroscientists would most likely consider Shaker to be which of the following?
- An example of a behavioral gene
  - One of multiple genes that control a single behavior
  - A gene that, when mutated, causes an alteration in a specific normal behavior without making the organism ill
  - A gene of interest to ethologists but of no interest to neuroscientists
  - A poor source of information about the nervous system

RC00322-05

58. It can be inferred from the passage that which of the following, if true, would be most likely to influence ethologists’ opinions about whether a particular gene in a species is a behavioral gene?
- The gene is found only in that species.
  - The gene is extremely difficult to identify.
  - The only effect of mutations in the gene is to make the organism ill.
  - Neuroscientists consider the gene to be a behavioral gene.
  - Geneticists consider the gene to be a behavioral gene.

Line In a 1918 editorial, W. E. B. Du Bois advised African Americans to stop agitating for equality and to proclaim their solidarity with White Americans for the duration of the First World War. The editorial (5) surprised many African Americans who viewed Du Bois as an uncompromising African American leader and a chief opponent of the accommodationist tactics urged by Booker T. Washington. In fact, however, Du Bois often shifted positions along the (10) continuum between Washington and confrontationists such as William Trotter. In 1895, when Washington called on African Americans to concentrate on improving their communities instead of opposing discrimination and agitating for political (15) rights, Du Bois praised Washington's speech. In 1903, however, Du Bois aligned himself with Trotter, Washington's militant opponent, less for ideological reasons than because Trotter had described to him Washington's efforts to silence those in the African (20) American press who opposed Washington's positions.

Du Bois's wartime position thus reflected not a change in his long-term goals but rather a pragmatic response in the face of social pressures: (25) government officials had threatened African American journalists with censorship if they continued to voice grievances. Furthermore, Du Bois believed that African Americans' contributions to past war efforts had brought them (30) some legal and political advances. Du Bois's accommodationism did not last, however. Upon learning of systematic discrimination experienced by African Americans in the military, he called on them to "return fighting" from the war.

**Questions 59–63 refer to the passage**

RC00079-01

59. The passage is primarily concerned with
- identifying historical circumstances that led Du Bois to alter his long-term goals
  - defining "accommodationism" and showing how Du Bois used this strategy to achieve certain goals
  - accounting for a particular position adopted by Du Bois during the First World War
  - contesting the view that Du Bois was significantly influenced by either Washington or Trotter
  - assessing the effectiveness of a strategy that Du Bois urged African Americans to adopt
- RC00079-02
60. The passage indicates which of the following about Du Bois's attitude toward Washington?
- It underwent a shift during the First World War as Du Bois became more sympathetic with Trotter's views.
  - It underwent a shift in 1903 for reasons other than Du Bois's disagreement with Washington's accommodationist views.
  - It underwent a shift as Du Bois made a long-term commitment to the strategy of accommodation.
  - It remained consistently positive even though Du Bois disagreed with Washington's efforts to control the African American press.
  - It was shaped primarily by Du Bois's appreciation of Washington's pragmatic approach to the advancement of the interests of African Americans.

RC00079-04

61. The passage suggests which of the following about the contributions of African Americans to the United States war effort during the First World War?
- The contributions were made largely in response to Du Bois's 1918 editorial.
  - The contributions had much the same effect as African Americans' contributions to previous wars.
  - The contributions did not end discrimination against African Americans in the military.
  - The contributions were made in protest against Trotter's confrontationist tactics.
  - The contributions were made primarily by civil rights activists who returned to activism after the war.

RC00079-05

62. The author of the passage refers to Washington's call to African Americans in 1895 primarily in order to
- identify Du Bois's characteristic position on the continuum between accommodationism and confrontationism
  - explain why Du Bois was sympathetic with Washington's views in 1895
  - clarify how Trotter's views differed from those of Washington in 1895
  - support an assertion about Du Bois's tendency to shift his political positions
  - dismiss the claim that Du Bois's position in his 1918 editorial was consistent with his previous views

RC00079-06

63. According to the passage, which of the following is true of the strategy that Du Bois's 1918 editorial urged African Americans to adopt during the First World War?
- It was a strategy that Du Bois had consistently rejected in the past.
  - It represented a compromise between Du Bois's own views and those of Trotter.
  - It represented a significant redefinition of the long-term goals Du Bois held prior to the war.
  - It was advocated by Du Bois in response to his recognition of the discrimination faced by African Americans during the war.
  - It was advocated by Du Bois in part because of his historical knowledge of gains African Americans had made during past wars.

Line Findings from several studies on corporate mergers and acquisitions during the 1970's and 1980's raise questions about why firms initiate and consummate such transactions. One study showed, for example, (5) that acquiring firms were on average unable to maintain acquired firms' pre-merger levels of profitability. A second study concluded that post-acquisition gains to most acquiring firms were not adequate to cover the premiums paid to obtain (10) acquired firms. A third demonstrated that, following the announcement of a prospective merger, the stock of the prospective acquiring firm tends to increase in value much less than does that of the firm for which it bids. Yet mergers and acquisitions (15) remain common, and bidders continue to assert that their objectives are economic ones.

Acquisitions may well have the desirable effect of channeling a nation's resources efficiently from less to more efficient sectors of its economy, but the (20) individual acquisitions executives arranging these deals must see them as advancing either their own or their companies' private economic interests. It seems that factors having little to do with corporate economic interests explain acquisitions. These (25) factors may include the incentive compensation of executives, lack of monitoring by boards of directors, and managerial error in estimating the value of firms targeted for acquisition. Alternatively, the acquisition acts of bidders may derive from (30) modeling: a manager does what other managers do.

Questions 64–70 refer to the passage.

RC00034-01

64. The primary purpose of the passage is to
- review research demonstrating the benefits of corporate mergers and acquisitions and examine some of the drawbacks that acquisition behavior entails
  - contrast the effects of corporate mergers and acquisitions on acquiring firms and on firms that are acquired
  - report findings that raise questions about a reason for corporate mergers and acquisitions and suggest possible alternative reasons
  - explain changes in attitude on the part of acquiring firms toward corporate mergers and acquisitions
  - account for a recent decline in the rate of corporate mergers and acquisitions
- RC00034-02
65. The findings cited in the passage suggest which of the following about the outcomes of corporate mergers and acquisitions with respect to acquiring firms?
- They include a decrease in value of many acquiring firms' stocks.
  - They tend to be more beneficial for small firms than for large firms.
  - They do not fulfill the professed goals of most acquiring firms.
  - They tend to be beneficial to such firms in the long term even though apparently detrimental in the short term.
  - They discourage many such firms from attempting to make subsequent bids and acquisitions.

RC00034-03

66. It can be inferred from the passage that the author would be most likely to agree with which of the following statements about corporate acquisitions?
- Their known benefits to national economies explain their appeal to individual firms during the 1970's and 1980's.
  - Despite their adverse impact on some firms, they are the best way to channel resources from less to more productive sectors of a nation's economy.
  - They are as likely to occur because of poor monitoring by boards of directors as to be caused by incentive compensation for managers.
  - They will be less prevalent in the future, since their actual effects will gain wider recognition.
  - Factors other than economic benefit to the acquiring firm help to explain the frequency with which they occur.

RC00034-04

67. The author of the passage mentions the effect of acquisitions on national economies most probably in order to
- provide an explanation for the mergers and acquisitions of the 1970's and 1980's overlooked by the findings discussed in the passage
  - suggest that national economic interests played an important role in the mergers and acquisitions of the 1970's and 1980's
  - support a noneconomic explanation for the mergers and acquisitions of the 1970's and 1980's that was cited earlier in the passage
  - cite and point out the inadequacy of one possible explanation for the prevalence of mergers and acquisitions during the 1970's and 1980's
  - explain how modeling affected the decisions made by managers involved in mergers and acquisitions during the 1970's and 1980's

RC00034-05

68. According to the passage, during the 1970's and 1980's bidding firms differed from the firms for which they bid in that bidding firms
- tended to be more profitable before a merger than after a merger
  - were more often concerned about the impact of acquisitions on national economies
  - were run by managers whose actions were modeled on those of other managers
  - anticipated greater economic advantages from prospective mergers
  - experienced less of an increase in stock value when a prospective merger was announced

RC00034-06

69. According to the passage, which of the following was true of corporate acquisitions that occurred during the 1970's and 1980's?
- Few of the acquisitions that firms made were subsequently divested.
  - Most such acquisitions produced only small increases in acquired firms' levels of profitability.
  - Most such acquisitions were based on an overestimation of the value of target firms.
  - The gains realized by most acquiring firms did not equal the amounts expended in acquiring target firms.
  - About half of such acquisitions led to long-term increases in the value of acquiring firms' stocks.

RC00034-07

70. The author of the passage implies that which of the following is a possible partial explanation for acquisition behavior during the 1970's and 1980's?
- Managers wished to imitate other managers primarily because they saw how financially beneficial other firms' acquisitions were.
  - Managers miscalculated the value of firms that were to be acquired.
  - Lack of consensus within boards of directors resulted in their imposing conflicting goals on managers.
  - Total compensation packages for managers increased during that period.
  - The value of bidding firms' stock increased significantly when prospective mergers were announced.

Line Historians who study European women of the Renaissance try to measure “independence,” “options,” and other indicators of the degree to which the expression of women’s individuality was either permitted or suppressed. Influenced by Western individualism, these historians define a peculiar form of personhood: an innately bounded unit, autonomous and standing apart from both nature and society. An anthropologist, however, would contend that a person (5) can be conceived in ways other than as an “individual.” In many societies a person’s identity is not intrinsically unique and self-contained but instead is defined within a complex web of social relationships.

In her study of the fifteenth-century Florentine (10) widow Alessandra Strozzi, a historian who specializes in European women of the Renaissance attributes individual intention and authorship of actions to her subject. This historian assumes that Alessandra had goals and interests different from those of her sons, (15) yet much of the historian’s own research reveals that Alessandra acted primarily as a champion of her sons’ interests, taking their goals as her own. Thus Alessandra conforms more closely to the (20) anthropologist’s notion that personal motivation is embedded in a social context. Indeed, one could argue that Alessandra did not distinguish her personhood from that of her sons. In Renaissance Europe the (25) boundaries of the conceptual self were not always firm and closed and did not necessarily coincide with the boundaries of the bodily self.

(30)

Questions 71–75 refer to the passage.

RC00097-02

71. According to the passage, much of the research on Alessandra Strozzi done by the historian mentioned in the second paragraph supports which of the following conclusions?
- Alessandra used her position as her sons’ sole guardian to further interests different from those of her sons.
  - Alessandra unwillingly sacrificed her own interests in favor of those of her sons.
  - Alessandra’s actions indicate that her motivations and intentions were those of an independent individual.
  - Alessandra’s social context encouraged her to take independent action.
  - Alessandra regarded her sons’ goals and interests as her own.

RC00097-03

72. In the first paragraph, the author of the passage mentions a contention that would be made by an anthropologist most likely in order to
- present a theory that will be undermined in the discussion of a historian’s study later in the passage
  - offer a perspective on the concept of personhood that can usefully be applied to the study of women in Renaissance Europe
  - undermine the view that the individuality of European women of the Renaissance was largely suppressed
  - argue that anthropologists have applied the Western concept of individualism in their research
  - lay the groundwork for the conclusion that Alessandra’s is a unique case among European women of the Renaissance whose lives have been studied by historians

RC00097-04

73. The passage suggests that the historians referred to in line 1 make which of the following assumptions about Renaissance Europe?
- That anthropologists overestimate the importance of the individual in Renaissance European society
  - That in Renaissance Europe, women were typically allowed to express their individuality
  - That European women of the Renaissance had the possibility of acting independently of the social context in which they lived
  - That studying an individual such as Alessandra is the best way to draw general conclusions about the lives of women in Renaissance Europe
  - That people in Renaissance Europe had greater personal autonomy than people do currently

RC00097-05

74. It can be inferred that the author of the passage believes which of the following about the study of Alessandra Strozzi done by the historian mentioned in the second paragraph?
- Alessandra was atypical of her time and was therefore an inappropriate choice for the subject of the historian's research.
  - In order to bolster her thesis, the historian adopted the anthropological perspective on personhood.
  - The historian argues that the boundaries of the conceptual self were not always firm and closed in Renaissance Europe.
  - In her study, the historian reverts to a traditional approach that is out of step with the work of other historians of Renaissance Europe.
  - The interpretation of Alessandra's actions that the historian puts forward is not supported by much of the historian's research.

RC00097-06

75. The passage suggests that the historian mentioned in the second paragraph would be most likely to agree with which of the following assertions regarding Alessandra Strozzi?
- Alessandra was able to act more independently than most women of her time because she was a widow.
  - Alessandra was aware that her personal motivation was embedded in a social context.
  - Alessandra had goals and interests similar to those of many other widows in her society.
  - Alessandra is an example of a Renaissance woman who expressed her individuality through independent action.
  - Alessandra was exceptional because she was able to effect changes in the social constraints placed upon women in her society.

Line In addition to conventional galaxies, the universe contains very dim galaxies that until recently went unnoticed by astronomers. Possibly as numerous as conventional galaxies, these galaxies have the same general shape and even the same approximate number of stars as a common type of conventional galaxy, the spiral, but tend to be much larger. Because these galaxies' mass is spread out over larger areas, they have far fewer stars per unit volume than do conventional galaxies. Apparently these low-surface-brightness galaxies, as they are called, take much longer than conventional galaxies to condense their primordial gas and convert it to stars—that is, they evolve much more slowly.

(5) (10) (15) (20) (25)

These galaxies may constitute an answer to the long-standing puzzle of the missing baryonic mass in the universe. Baryons—subatomic particles that are generally protons or neutrons—are the source of stellar, and therefore galactic, luminosity, and so their numbers can be estimated based on how luminous galaxies are. However, the amount of helium in the universe, as measured by spectroscopy, suggests that there are far more baryons in the universe than estimates based on galactic luminosity indicate. Astronomers have long speculated that the missing baryonic mass might eventually be discovered in intergalactic space or as some large population of galaxies that are difficult to detect.

**Questions 76–82 refer to the passage.**

RC00054-01

76. According to the passage, conventional spiral galaxies differ from low-surface-brightness galaxies in which of the following ways?
- They have fewer stars than do low-surface-brightness galaxies.
  - They evolve more quickly than low-surface-brightness galaxies.
  - They are more diffuse than low-surface-brightness galaxies.
  - They contain less helium than do low-surface-brightness galaxies.
  - They are larger than low-surface-brightness galaxies.

RC00054-02

77. It can be inferred from the passage that which of the following is an accurate physical description of typical low-surface-brightness galaxies?
- They are large spiral galaxies containing fewer stars than conventional galaxies.
  - They are compact but very dim spiral galaxies.
  - They are diffuse spiral galaxies that occupy a large volume of space.
  - They are small, young spiral galaxies that contain a high proportion of primordial gas.
  - They are large, dense spirals with low luminosity.

RC00054-03

78. It can be inferred from the passage that the “long-standing puzzle” refers to which of the following?
- The difference between the rate at which conventional galaxies evolve and the rate at which low-surface-brightness galaxies evolve
  - The discrepancy between estimates of total baryonic mass derived from measuring helium and estimates based on measuring galactic luminosity
  - The inconsistency between the observed amount of helium in the universe and the number of stars in typical low-surface-brightness galaxies
  - Uncertainties regarding what proportion of baryonic mass is contained in intergalactic space and what proportion in conventional galaxies
  - Difficulties involved in detecting very distant galaxies and in investigating their luminosity

RC00054-04

79. The author implies that low-surface-brightness galaxies could constitute an answer to the puzzle discussed in the second paragraph primarily because
- they contain baryonic mass that was not taken into account by researchers using galactic luminosity to estimate the number of baryons in the universe
  - they, like conventional galaxies that contain many baryons, have evolved from massive, primordial gas clouds
  - they may contain relatively more helium, and hence more baryons, than do galaxies whose helium content has been studied using spectroscopy
  - they have recently been discovered to contain more baryonic mass than scientists had thought when low-surface-brightness galaxies were first observed
  - they contain stars that are significantly more luminous than would have been predicted on the basis of initial studies of luminosity in low-surface-brightness galaxies

RC00054-05

80. The author mentions the fact that baryons are the source of stars' luminosity primarily in order to explain
- how astronomers determine that some galaxies contain fewer stars per unit volume than do others
  - how astronomers are able to calculate the total luminosity of a galaxy
  - why astronomers can use galactic luminosity to estimate baryonic mass
  - why astronomers' estimates of baryonic mass based on galactic luminosity are more reliable than those based on spectroscopic studies of helium
  - how astronomers know bright galaxies contain more baryons than do dim galaxies

RG00054-06

81. The author of the passage would be most likely to disagree with which of the following statements?
- Low-surface-brightness galaxies are more difficult to detect than are conventional galaxies.
  - Low-surface-brightness galaxies are often spiral in shape.
  - Astronomers have advanced plausible ideas about where missing baryonic mass might be found.
  - Astronomers have devised a useful way of estimating the total baryonic mass in the universe.
  - Astronomers have discovered a substantial amount of baryonic mass in intergalactic space.

RG00054-07

82. The primary purpose of the passage is to
- describe a phenomenon and consider its scientific significance
  - contrast two phenomena and discuss a puzzling difference between them
  - identify a newly discovered phenomenon and explain its origins
  - compare two classes of objects and discuss the physical properties of each
  - discuss a discovery and point out its inconsistency with existing theory

- Line The fact that superior service can generate a competitive advantage for a company does not mean that every attempt at improving service will create such an advantage. Investments in service, (5) like those in production and distribution, must be balanced against other types of investments on the basis of direct, tangible benefits such as cost reduction and increased revenues. If a company is already effectively on a par with its competitors (10) because it provides service that avoids a damaging reputation and keeps customers from leaving at an unacceptable rate, then investment in higher service levels may be wasted, since service is a deciding factor for customers only in extreme (15) situations.

This truth was not apparent to managers of one regional bank, which failed to improve its competitive position despite its investment in reducing the time a customer had to wait for a teller. The bank managers did not recognize the level of customer inertia in the consumer banking industry that arises from the inconvenience of switching banks. Nor did they analyze their service improvement to determine whether it would attract (20) new customers by producing a new standard of service that would excite customers or by proving difficult for competitors to copy. The only merit of (25) the improvement was that it could easily be described to customers.

**Questions 83–88 refer to the passage.**

RC1123801

83. The primary purpose of the passage is to
- contrast possible outcomes of a type of business investment
  - suggest more careful evaluation of a type of business investment
  - illustrate various ways in which a type of business investment could fail to enhance revenues
  - trace the general problems of a company to a certain type of business investment
  - criticize the way in which managers tend to analyze the costs and benefits of business investments
- RC1123802
84. According to the passage, investments in service are comparable to investments in production and distribution in terms of the
- tangibility of the benefits that they tend to confer
  - increased revenues that they ultimately produce
  - basis on which they need to be weighed
  - insufficient analysis that managers devote to them
  - degree of competitive advantage that they are likely to provide
- RC1123803
85. The passage suggests which of the following about service provided by the regional bank prior to its investment in enhancing that service?
- It enabled the bank to retain customers at an acceptable rate.
  - It threatened to weaken the bank's competitive position with respect to other regional banks.
  - It had already been improved after having caused damage to the bank's reputation in the past.
  - It was slightly superior to that of the bank's regional competitors.
  - It needed to be improved to attain parity with the service provided by competing banks.

RC11238-04

86. The passage suggests that bank managers failed to consider whether or not the service improvement mentioned in lines 18–20
- was too complicated to be easily described to prospective customers
  - made a measurable change in the experiences of customers in the bank's offices
  - could be sustained if the number of customers increased significantly
  - was an innovation that competing banks could have imitated
  - was adequate to bring the bank's general level of service to a level that was comparable with that of its competitors

RC11238-05

87. The discussion of the regional bank in the second paragraph serves which of the following functions within the passage as a whole?
- It describes an exceptional case in which investment in service actually failed to produce a competitive advantage.
  - It illustrates the pitfalls of choosing to invest in service at a time when investment is needed more urgently in another area.
  - It demonstrates the kind of analysis that managers apply when they choose one kind of service investment over another.
  - It supports the argument that investments in certain aspects of service are more advantageous than investments in other aspects of service.
  - It provides an example of the point about investment in service made in the first paragraph.

RC11238-06

88. The author uses the word “only” in line 27 most likely in order to
- highlight the oddity of the service improvement
  - emphasize the relatively low value of the investment in service improvement
  - distinguish the primary attribute of the service improvement from secondary attributes
  - single out a certain merit of the service improvement from other merits
  - point out the limited duration of the actual service improvement

Line Antonia Castañeda has utilized scholarship from women's studies and Mexican-American history to examine nineteenth-century literary portrayals of Mexican women. As Castañeda notes, scholars of  
 (5) women's history observe that in the United States, male novelists of the period—during which, according to these scholars, women's traditional economic role in home-based agriculture was threatened by the transition to a factory-based industrial economy—  
 (10) define women solely in their domestic roles of wife and mother. Castañeda finds that during the same period that saw non-Hispanic women being economically displaced by industrialization, Hispanic law in territorial California protected the economic position of  
 (15) "Californianas" (the Mexican women of the territory) by ensuring them property rights and inheritance rights equal to those of males.

For Castañeda, the laws explain a stereotypical plot created primarily by male, non-Hispanic novelists:  
 (20) the story of an ambitious non-Hispanic merchant or trader desirous of marrying an elite Californiana. These novels' favorable portrayal of such women is noteworthy, since Mexican-American historians have concluded that unflattering literary depictions  
 (25) of Mexicans were vital in rallying the United States public's support for the Mexican-American War (1846–1848). The importance of economic alliances forged through marriages with Californianas explains this apparent contradiction. Because of their real-life economic significance, the Californianas were  
 (30) portrayed more favorably than were others of the same nationality.

Questions 89–91 refer to the passage.

RC00548-03

89. The “apparent contradiction” mentioned in line 29 refers to the discrepancy between the
- (A) legal status of Mexican women in territorial California and their status in the United States
  - (B) unflattering depiction of Mexicans in novels and the actual public sentiment about the Mexican-American War
  - (C) existence of many marriages between Californianas and non-Hispanic merchants and the strictures against them expressed in novels
  - (D) literary depiction of elite Californianas and the literary depiction of other Mexican individuals
  - (E) novelistic portrayals of elite Californianas' privileged lives and the actual circumstances of those lives

RC00548-04

90. Which of the following could best serve as an example of the kind of fictional plot discussed by Antonia Castañeda?
- (A) A land speculator of English ancestry weds the daughter of a Mexican vineyard owner after the speculator has migrated to California to seek his fortune.
  - (B) A Californian woman of Hispanic ancestry finds that her agricultural livelihood is threatened when her husband is forced to seek work in a textile mill.
  - (C) A Mexican rancher who loses his land as a result of the Mexican-American War migrates to the northern United States and marries an immigrant schoolteacher.
  - (D) A wealthy Californiana whose father has bequeathed her all his property contends with avaricious relatives for her inheritance.
  - (E) A poor married couple emigrate from French Canada and gradually become wealthy as merchants in territorial California.

RC00548-05

91. Which of the following, if true, would provide the most support for Castañeda's explanation of the "stereotypical plot" mentioned in the lines 18–19?
- (A) Non-Hispanic traders found business more profitable in California while it was a territory than when it became a state.
  - (B) Very few marriages between Hispanic women and non-Hispanic men in nineteenth-century territorial California have actually been documented.
  - (C) Records from the nineteenth century indicate that some large and valuable properties were owned by elite Californianas in their own right.
  - (D) Unmarried non-Hispanic women in the nineteenth-century United States were sometimes able to control property in their own right.
  - (E) Most of the property in nineteenth-century territorial California was controlled by Hispanic men.

Line This passage is excerpted from material published in 1997.

Scientists have been puzzled by the seeming disparity between models of global warming based on (5) greenhouse gas emissions and actual climatological data. In short, the world is not warming up as much as these models have predicted. In the early 1990s, Pat Michaels sought to explain this disparity, suggesting that sulfate emissions in industrial areas had a cooling (10) effect, thus temporarily retarding global warming. Michaels later came to doubt this idea, however, pointing out that since most sulfate is emitted in the Northern Hemisphere, its cooling influence should be largely limited to that hemisphere. Yet, since 1987, (15) warming in the Southern Hemisphere, which had been relatively intense, has virtually ceased, while warming in the north has accelerated. Thus, Michaels not only doubted the idea of sulfate cooling, but came to feel that global warming models themselves may be (20) flawed.

Ben Santer disagrees. Santer contends that, in general, global warming occurs more slowly in the south because this hemisphere is dominated by oceans, which warm more slowly than the landmasses (25) that dominate the Northern Hemisphere. But, according to Santer, the situation remains complicated by sulfate cooling, which peaked in the north in the mid-twentieth century. It drastically slowed warming in the Northern Hemisphere, and warming in the (30) Southern Hemisphere raced ahead. Since 1987, Santer argues, the greenhouse effect has reasserted itself, and the north has taken the lead. Thus, Santer disputes Michaels's claim that model predictions and observed data differ fundamentally.

Questions 92–94 refer to the passage.

RC00533-03

92. The passage suggests that, in the early 1990s, Michaels would have been most likely to agree with which of the following statements about the disparity mentioned in the lines 3–4?
- (A) This disparity is relatively less extreme in the Northern Hemisphere because of sulfate cooling.  
 (B) This disparity is only a short-term phenomenon brought about by sulfate cooling.  
 (C) This disparity is most significant in those parts of the world dominated by oceans.  
 (D) The extent of this disparity is being masked by the temporary effect of sulfate cooling.  
 (E) The disparity confirms that current models of global warming are correct.
- RC00533-04
93. According to the passage, Santer asserts which of the following about global warming?
- (A) It will become a more serious problem in the Southern Hemisphere than in the Northern Hemisphere in spite of the cooling influence of oceans in the south.  
 (B) It is unlikely to be a serious problem in the future because of the pervasive effect of sulfate cooling.  
 (C) It will proceed at the same general rate in the Northern and Southern Hemispheres once the temporary influence of sulfate cooling comes to an end.  
 (D) Until the late 1980s, it was moderated in the Northern Hemisphere by the effect of sulfate cooling.  
 (E) Largely because of the cooling influence of oceans, it has had no discernible impact on the Southern Hemisphere.

RC00533-05

94. The passage suggests that Santer and Michaels would be most likely to DISAGREE over which of the following issues?
- (A) Whether climatological data invalidates global warming models
  - (B) Whether warming in the Northern Hemisphere has intensified since 1987
  - (C) Whether disparities between global warming models and climatological data can be detected
  - (D) Whether landmasses warm more rapidly than oceans
  - (E) Whether oceans have a significant effect on global climate patterns

Line Micro-wear patterns found on the teeth of long-extinct specimens of the primate species australopithecine may provide evidence about their diets. For example, on the basis of tooth micro-wear patterns, Walker dismisses Jolly's hypothesis that australopithecines ate hard seeds. He also disputes Szalay's suggestion that the heavy enamel of australopithecine teeth is an adaptation to bone crunching, since both seed cracking and bone crunching produce distinctive micro-wear characteristics on teeth. His conclusion that australopithecines were frugivores (fruit eaters) is based upon his observation that the tooth micro-wear characteristics of east African australopithecine specimens are indistinguishable from those of chimpanzees and orangutans, which are commonly assumed to be frugivorous primates.

However, research on the diets of contemporary primates suggests that micro-wear studies may have limited utility in determining the foods that are actually eaten. For example, insect eating, which can cause distinct micro-wear patterns, would not cause much tooth abrasion in modern baboons, who eat only soft-bodied insects rather than hard-bodied insects. In addition, the diets of current omnivorous primates vary considerably depending on the environments that different groups within a primate species inhabit; if australopithecines were omnivores too, we might expect to find considerable population variation in their tooth micro-wear patterns. Thus, Walker's description of possible australopithecine diets may need to be expanded to include a much more diverse diet.

**Questions 95–101 refer to the passage**

RC00613-01

95. According to the passage, Walker and Szalay disagree on which of the following points?
- The structure and composition of australopithecine teeth
  - The kinds of conclusions that can be drawn from the micro-wear patterns on australopithecine teeth
  - The idea that fruit was a part of the australopithecine diet
  - The extent to which seed cracking and bone crunching produce similar micro-wear patterns on teeth
  - The function of the heavy enamel on australopithecine teeth

RC00613-02

96. The passage suggests that Walker's research indicated which of the following about australopithecine teeth?
- They had micro-wear characteristics indicating that fruit constituted only a small part of their diet.
  - They lacked micro-wear characteristics associated with seed eating and bone crunching.
  - They had micro-wear characteristics that differed in certain ways from the micro-wear patterns of chimpanzees and orangutans.
  - They had micro-wear characteristics suggesting that the diet of australopithecines varied from one region to another.
  - They lacked the micro-wear characteristics distinctive of modern frugivores.

RC00613-03

97. The passage suggests that which of the following would be true of studies of tooth micro-wear patterns conducted on modern baboons?
- They would inaccurately suggest that some baboons eat more soft-bodied than hard-bodied insects.
  - They would suggest that insects constitute the largest part of some baboons' diets.
  - They would reveal that there are no significant differences in tooth micro-wear patterns among baboon populations.
  - They would inadequately reflect the extent to which some baboons consume certain types of insects.
  - They would indicate that baboons in certain regions eat only soft-bodied insects, whereas baboons in other regions eat hard-bodied insects.

RC00613-04

98. The passage suggests which of the following about the micro-wear patterns found on the teeth of omnivorous primates?
- The patterns provide information about what kinds of foods are not eaten by the particular species of primate, but not about the foods actually eaten.
  - The patterns of various primate species living in the same environment resemble one another.
  - The patterns may not provide information about the extent to which a particular species' diet includes seeds.
  - The patterns provide more information about these primates' diet than do the tooth micro-wear patterns of primates who are frugivores.
  - The patterns may differ among groups within a species depending on the environment within which a particular group lives.

RC00613-05

99. It can be inferred from the passage that if studies of tooth micro-wear patterns were conducted on modern baboons, which of the following would most likely be true of the results obtained?
- There would be enough abrasion to allow a determination of whether baboons are frugivorous or insectivorous.
  - The results would suggest that insects constitute the largest part of the baboons' diet.
  - The results would reveal that there are no significant differences in tooth micro-wear patterns from one regional baboon population to another.
  - The results would provide an accurate indication of the absence of some kinds of insects from the baboons' diet.
  - The results would be unlikely to provide any indication of what inferences about the australopithecine diet can or cannot be drawn from micro-wear studies.

RC00613-08

100. It can be inferred from the passage that Walker's conclusion about the australopithecine diet would be called into question under which of the following circumstances?
- The tooth enamel of australopithecines is found to be much heavier than that of modern frugivorous primates.
  - The micro-wear patterns of australopithecine teeth from regions other than east Africa are analyzed.
  - Orangutans are found to have a much broader diet than is currently recognized.
  - The environment of east Africa at the time australopithecines lived there is found to have been far more varied than is currently thought.
  - The area in which the australopithecine specimens were found is discovered to have been very rich in soft-bodied insects during the period when australopithecines lived there.

RC00613-10

101. The author of the passage mentions the diets of baboons and other living primates most likely in order to
- (A) provide evidence that refutes Walker's conclusions about the foods making up the diets of australopithecines
  - (B) suggest that studies of tooth micro-wear patterns are primarily useful for determining the diets of living primates
  - (C) suggest that australopithecines were probably omnivores rather than frugivores
  - (D) illustrate some of the limitations of using tooth micro-wear patterns to draw definitive conclusions about a group's diet
  - (E) suggest that tooth micro-wear patterns are caused by persistent, as opposed to occasional, consumption of particular foods

Line In current historiography, the picture of a consistent, unequivocal decline in women's status with the advent of capitalism and industrialization is giving way to an analysis that not only emphasizes both change (whether improvement or decline) and continuity but also accounts for geographical and occupational variation. The history of women's work in English farmhouse cheese making between 1800 and 1930 is a case in point. In her influential *Women Workers and the Industrial Revolution* (1930), Pinchbeck argued that the agricultural revolution of the eighteenth and early nineteenth centuries, with its attendant specialization and enlarged scale of operation, curtailed women's participation in the business of cheese production. Earlier, she (5) maintained, women had concerned themselves with feeding cows, rearing calves, and even selling the cheese in local markets and fairs. Pinchbeck thought that the advent of specialization meant that women's work in cheese dairying was reduced simply to (10) processing the milk. "Dairymen" (a new social category) raised and fed cows and sold the cheese through factors, who were also men. With this narrowing of the scope of work, Pinchbeck believed, women lost business ability, independence, and initiative.

(15) Though Pinchbeck portrayed precapitalist, preindustrial conditions as superior to what followed, recent scholarship has seriously questioned the notion of a golden age for women in precapitalist society. For example, scholars note that women's control seldom (20) extended to the disposal of the proceeds of their work. In the case of cheese, the rise of factors may have compromised women's ability to market cheese at fairs. But merely selling the cheese did not necessarily imply access to the money: Davidoff cites (25) the case of an Essex man who appropriated all but a fraction of the money from his wife's cheese sales. By focusing on somewhat peripheral operations, moreover, Pinchbeck missed a substantial element of continuity in women's participation: throughout the (30) period women did the central work of actually making cheese. Their persistence in English cheese dairying contrasts with women's early disappearance from arable agriculture in southeast England and from American cheese dairying. Comparing these (35) three divergent developments yields some reasons for the differences among them. English cheese-making women worked in a setting in which cultural values, agricultural conditions, and the nature of their work combined to support their continued (40) participation. In the other cases, one or more of these elements was lacking.

## Questions 102–103 refer to the passage

RC00512-01

102. The primary purpose of the passage is to
- present recently discovered evidence that supports a conventional interpretation of a historical period
  - describe how reinterpretations of available evidence have reinvigorated a once-discredited scholarly position
  - explain why some historians have tended to emphasize change rather than continuity in discussing a particular period
  - explore how changes in a particular occupation serve to counter the prevailing view of a historical period
  - examine a particular area of historical research in order to exemplify a general scholarly trend
- RC00512-03
103. Regarding English local markets and fairs, which of the following can be inferred from the passage?
- Both before and after the agricultural revolution, the sellers of agricultural products at these venues were men.
  - Knowing who the active sellers were at these venues may not give a reliable indication of who controlled the revenue from the sales.
  - There were no parallel institutions at which American cheese makers could sell their own products.
  - Prior to the agricultural revolution, the sellers of agricultural products at these venues were generally the producers themselves.
  - Prior to the agricultural revolution, women sold not only cheese but also products of arable agriculture at these venues.

RC00512-05

104. The passage describes the work of Pinchbeck primarily in order to

- (A) demonstrate that some of the conclusions reached by recent historians were anticipated in earlier scholarship
- (B) provide an instance of the viewpoint that, according to the passage's author, is being superseded
- (C) illustrate the ways in which recent historians have built on the work of their predecessors
- (D) provide a point of reference for subsequent scholarship on women's work during the agricultural revolution
- (E) show the effect that the specialization introduced in the agricultural and industrial revolutions had on women's work

RC00512-07

105. It can be inferred from the passage that women did work in

- (A) American cheesemaking at some point prior to industrialization
- (B) arable agriculture in northern England both before and after the agricultural revolution
- (C) arable agriculture in southeast England after the agricultural revolution, in those locales in which cultural values supported their participation
- (D) the sale of cheese at local markets in England even after the agricultural revolution
- (E) some areas of American cheese dairying after industrialization

### 3.5 Answer Key

1. C	28. B	55. B	82. A
2. E	29. B	56. B	83. B
3. D	30. E	57. A	84. C
4. E	31. C	58. C	85. A
5. A	32. C	59. C	86. D
6. C	33. C	60. B	87. E
7. D	34. D	61. C	88. B
8. B	35. E	62. D	89. D
9. C	36. D	63. E	90. A
10. D	37. E	64. C	91. C
11. D	38. B	65. C	92. B
12. B	39. C	66. E	93. D
13. E	40. E	67. D	94. A
14. C	41. A	68. E	95. E
15. D	42. D	69. D	96. B
16. C	43. A	70. B	97. D
17. E	44. B	71. E	98. E
18. B	45. D	72. B	99. D
19. A	46. B	73. C	100. C
20. D	47. A	74. E	101. D
21. B	48. E	75. D	102. E
22. E	49. C	76. B	103. B
23. C	50. D	77. C	104. B
24. C	51. A	78. B	105. A
25. B	52. C	79. A	
26. A	53. C	80. C	
27. D	54. A	81. E	

## 3.6 Answer Explanations

The following discussion of reading comprehension is intended to familiarize you with the most efficient and effective approaches to the kinds of problems common to reading comprehension. The particular questions in this chapter are generally representative of the kinds of reading comprehension questions you will encounter on the GMAT. Remember that it is the problem solving strategy that is important, not the specific details of a particular question.

**Questions 1–4 refer to the passage on page 20.**

\*RC00184-01

1. According to the passage, traditional corporate leaders differ from leaders in learning organizations in that the former
  - (A) encourage employees to concentrate on developing a wide range of skills
  - (B) enable employees to recognize and confront dominant corporate models and to develop alternative models
  - (C) make important policy decisions alone and then require employees in the corporation to abide by those decisions
  - (D) instill confidence in employees because of their willingness to make risky decisions and accept their consequences
  - (E) are concerned with offering employees frequent advice and career guidance

### Supporting idea

This question requires understanding of the contrast the passage draws between leaders of traditional corporations and leaders of learning organizations. According to the second paragraph, the former are traditionally charismatic leaders who set policy and make decisions, while the latter foster integrated thinking at all levels of the organization.

- A According to the passage, it is leaders in learning organizations, not traditional corporate leaders, who encourage the development of a wide range of skills.
- B Leaders in learning organizations are those who want their employees to challenge dominant models.

- C **Correct.** The second paragraph states that traditional corporate leaders are individualistic; they alone *set the corporation's direction and make key decisions*.
- D The passage does not address the question of whether traditional corporate leaders instill confidence in employees. In fact, the first paragraph suggests that they may not; rather, they might come across as objectionably controlling.
- E The passage suggests that advice and guidance are more likely to be offered by leaders of learning organizations than by leaders of traditional corporations.

**The correct answer is C.**

\*RC00184-02

2. Which of the following best describes employee behavior encouraged within learning organizations, as such organizations are described in the passage?
  - (A) Carefully defining one's job description and taking care to avoid deviations from it
  - (B) Designing mentoring programs that train new employees to follow procedures that have been used for many years
  - (C) Concentrating one's efforts on mastering one aspect of a complicated task
  - (D) Studying an organizational problem, preparing a report, and submitting it to a corporate leader for approval
  - (E) Analyzing a problem related to productivity, making a decision about a solution, and implementing that solution

\*These numbers correlate with the online test bank question number. See the GMAT Verbal Review Online Index in the back of this book.

## Application

The second paragraph of the passage indicates that employees of learning organizations are encouraged to think and act for themselves; they learn new skills and expand their capabilities.

- A Avoiding deviations from one's carefully defined job description would more likely be encouraged in a traditional corporation, as described in the first paragraph, than in a learning organization.
- B Any employee training that involves following long-standing procedures would more likely be encouraged in a traditional corporation than a learning organization.
- C According to the passage, mastering only one aspect of a task, no matter how complicated, would be insufficient in a learning organization, in which broad patterns of thinking are encouraged.
- D As described in the passage, the role of corporate leaders in learning organizations is not, characteristically, to approve employees' solutions to problems, but rather to enable and empower employees to implement solutions on their own.
- E **Correct.** Employees in learning organizations are expected to act on their own initiative; thus, they would be encouraged to analyze and solve problems on their own, implementing whatever solutions they devised.

**The correct answer is E.**

RC00184-03

3. According to the author of the passage, corporate leaders of the future should do which of the following?
  - (A) They should encourage employees to put long-term goals ahead of short-term profits.
  - (B) They should exercise more control over employees in order to constrain production costs.
  - (C) They should redefine incentives for employees' performance improvement.
  - (D) They should provide employees with opportunities to gain new skills and expand their capabilities.
  - (E) They should promote individual managers who are committed to established company policies.

## Supporting idea

This question focuses on what the author recommends in the passage for future corporate leaders. In the second paragraph, the author states that, among other things, corporate leaders need to be teachers to provide challenges to their employees and create an atmosphere where *employees are continually learning new skills and expanding their capabilities to shape their future*.

- A The passage does not directly discuss the issue of corporate goals and profitability in the long or short term.
- B The passage does not address the topic of production costs, and it suggests that its author would favor reducing, rather than increasing, corporate leaders' control over employees. The first paragraph states that leaders who attempt to control employees lead those employees to perform in mediocre fashion.
- C The passage does not discuss incentivizing employees' performance; rather, employees' performance will improve, the passage suggests, under different corporate leadership.
- D **Correct.** The final sentence of the passage states directly that leaders must build organizations in which employees can learn new skills and expand their capabilities.
- E The first paragraph indicates that clinging to established company policies is a strategy for the future that is likely to be unproductive.

**The correct answer is D.**

RC00184-04

4. The primary purpose of the passage is to
  - (A) endorse a traditional corporate structure
  - (B) introduce a new approach to corporate leadership and evaluate criticisms of it
  - (C) explain competing theories about management practices and reconcile them
  - (D) contrast two typical corporate organizational structures
  - (E) propose an alternative to a common corporate approach

## Main idea

This question depends on understanding the passage as a whole. The first paragraph explains the way in which corporations fail to facilitate how humans learn. The second paragraph suggests that corporations should change the way they view employees in order to promote learning, and it explains the positive outcomes that would result from that shift in thinking.

- A The first paragraph explains that the traditional corporate structure leads to mediocre performance; it does not endorse that structure.
- B The second paragraph introduces the concept of a *learning organization* and its attendant approach to corporate leadership. Rather than identifying any criticisms of that approach, the passage endorses it wholeheartedly.
- C The passage discusses the difference between the idea of a single charismatic leader and that of a shared corporate leadership, but it does not attempt to reconcile these two ideas.
- D The passage's main focus is on advocating a particular approach, not on merely contrasting it with another. Furthermore, it portrays only one of the approaches as typical. It suggests that the organizational structure that relies on a single charismatic leader is typical but that another approach, that in which leadership is shared, should instead become typical.
- E **Correct.** The passage identifies a common corporate approach, one based on controlling employees, and proposes that corporations should instead become *learning organizations*.

**The correct answer is E.**

## Questions 5–10 refer to the passage on page 22.

RC00144-03

5. All of the following are mentioned as ways of controlling the magnitude of structural unemployment EXCEPT
- (A) using public funds to create jobs
  - (B) teaching new skills to displaced workers
  - (C) allowing displaced workers to retire
  - (D) controlling the movement of capital
  - (E) encouraging workers to move to where jobs are available

## Supporting idea

This question addresses what the passage states directly about how the magnitude of structural unemployment can be controlled. The last few sentences of the second paragraph state several ways in which this control may be exerted.

- A **Correct.** The passage mentions using public sector resources, but it does not say that those resources could be used to create jobs.
- B The passage states that workers can be reeducated or retrained as a way of addressing structural unemployment.
- C Encouraging workers to retire is one of the options mentioned in the passage for controlling structural unemployment.
- D Capital movement is one of the factors affecting structural unemployment, and the passage states that controlling this movement can be used as a way of controlling structural unemployment.
- E The passage indicates that encouraging displaced workers to move where there are jobs is a way to help control structural unemployment.

**The correct answer is A.**

RC00144-04

6. The passage suggests that a potential outcome of higher structural unemployment is
- increased public spending for social services
  - placement of workers in jobs for which they are not qualified
  - higher wages for those workers who have skills that are in demand
  - an increase in the length of time jobs remain unfilled
  - a shift in the government's economic policy priorities

### Supporting idea

The third paragraph discusses a potential result of higher structural unemployment: if more workers lack skills that are in demand, there will be shortages of qualified workers. The wages of workers who do have the desired skills will thus rise.

- While higher structural unemployment might result in an increased demand for social services, such as job training and the like, the passage does not suggest that the government would in fact respond by spending more on such services.
- Nothing in the passage indicates that employers would hire workers who lack necessary skills—indeed, the lack of qualified workers is itself a cause of increased structural unemployment.
- Correct.** The passage indicates that when growth in demand for workers with certain skills outpaces the growth in the number of workers who possess those skills, the wages of those workers are bid up, resulting in increased pay for the skilled workers.
- The passage does not discuss the length of time that jobs are likely to remain unfilled as structural unemployment increases. The amount of time jobs remain unfilled could remain the same, but the number or type of jobs that go unfilled may change.
- The passage suggests that certain types of public sector spending (presumably spending as a result of government policy) can help control the magnitude of structural

unemployment, but the passage does not indicate whether the government is in fact likely to change policy so as to try to control this magnitude. Furthermore, the passage states that government policy has placed a priority on reducing inflation. Yet there is no suggestion that the government is likely to shift away from this priority in the face of higher structural unemployment.

**The correct answer is C.**

RC00144-05

7. It can be inferred from the passage that even when there are unemployed workers, labor shortages are still likely to occur if
- the inflation rate is unusually high
  - there is insufficient technological innovation
  - the level of structural unemployment is exceptionally low
  - the jobs available in certain places require skills that the labor force in those areas lacks
  - the workers in some industries are dissatisfied with the pay offered in those industries

### Inference

This question relies on the passage's characterization of structural unemployment—that there is a mismatch between the number of jobs available in a certain location and the number of workers in that location who possess the skills required for those jobs. Even if there is a sufficient number of workers in the area to fill the positions, if those workers had the requisite skills, labor shortages will occur if an insufficient number of those workers lack the required skills.

- The passage in the third paragraph explains that structural unemployment and inflation can coexist, but it does not suggest that a high rate of inflation will make labor shortages likely; rather, the passage indicates that structural unemployment may lead to inflation by pushing wages, and thus prices, higher.
- The passage indicates that greater technological innovation can produce structural unemployment, not that insufficient technological innovation can.

- C When there are unemployed workers, labor shortages would be unlikely to occur if the level of structural unemployment is low, because low structural unemployment would mean that no imbalance exists between available employment and workers with requisite skills. Thus, unemployed workers would likely be able to find jobs.
- D **Correct.** The labor shortages associated with structural unemployment can, according to the passage, be caused by a mismatch in a certain location between available jobs requiring particular skills and the number of workers possessing those skills.
- E The passage does not discuss what would happen if some industries' workers are dissatisfied with their pay. Presumably, though, even if those workers were to quit their jobs due to that dissatisfaction, unemployed workers may very well be happy to take those jobs (assuming they are not lacking the requisite skills). So the passage gives us no reason to think that labor shortages would be likely to occur—at least without a situation like that described in answer choice D.

**The correct answer is D.**

RC00144-06

8. The passage suggests that the phenomenon of combined unemployment and inflation is
- a socioeconomic problem that can only be addressed by government intervention
  - a socioeconomic problem that can be characteristic of periods of structural unemployment
  - an economic problem that results from government intervention in management-labor relations
  - an economic problem that results from imperfect applications of technology
  - an economic problem that can be eliminated by relatively small changes in the labor force

### Supporting idea

This question depends on understanding the phenomenon of combined unemployment and inflation, which is addressed in the third paragraph. That paragraph states that a trend associated with structural unemployment—that of rising labor costs and prices—is responsible for the phenomenon.

- A The third paragraph indicates that government policy has been unable, thus far, to remedy the problem of combined unemployment and inflation, and it gives no indication whether a nongovernmental solution is available.
- B **Correct.** Periods of structural unemployment have, according to the passage, featured both inflation and unemployment.
- C The passage does not discuss government intervention into management-labor relations.
- D Certain applications of technology may be responsible for increasing structural unemployment, but the passage provides no way to distinguish between imperfect and other such applications.
- E The passage discusses the phenomenon of combined unemployment and inflation only in relation to structural unemployment, which the passage suggests is likely to arise only in relation to large or rapid changes in demand for labor. Therefore, it seems unlikely that relatively small changes in the labor force can eliminate the phenomenon of combined unemployment and inflation.

**The correct answer is B.**

RC00144-07

9. The passage is primarily concerned with
- clarifying the definition of a concept
  - proposing a way to eliminate an undesirable condition
  - discussing the sources and consequences of a problem
  - suggesting ways to alleviate the effects of a particular social policy
  - evaluating the steps that have been taken to correct an imbalance

## Main idea

This question depends on understanding the passage as a whole in order to identify its primary concern. The first paragraph defines structural unemployment (which the passage, in its second paragraph, indicates is a *serious problem*). The second paragraph describes a major factor that can cause structural unemployment, as well as some steps that might be taken to alleviate it. Finally, the third paragraph identifies possible effects of structural unemployment, including wage and price inflation.

- A The first paragraph clarifies the definition of structural unemployment, but this definition is not the passage's primary concern.
- B The passage's second paragraph indicates some ways that an increase in structural unemployment can be mitigated, but nowhere does the passage suggest that the condition can be eliminated entirely.
- C **Correct.** The passage discusses the problem of structural unemployment, explaining how it can arise and what some of its consequences may be.
- D The passage does suggest some ways in which structural unemployment might be alleviated, but this kind of unemployment is not characterized as an effect of a social policy. Rather, it is a state of economic affairs.
- E The second paragraph identifies some steps that could be taken to correct a particular situation of worker displacement. It does not, however, evaluate those steps.

**The correct answer is C.**

RC0014408

10. According to the passage, small downward shifts in the demand for labor will not usually cause unemployment because
- (A) such shifts are frequently accompanied by upswings in the economy
  - (B) such shifts usually occur slowly
  - (C) workers can be encouraged to move to where there are jobs
  - (D) normal attrition is often sufficient to reduce the size of the work force
  - (E) workers are usually flexible enough to learn new skills and switch to new jobs

## Supporting idea

This question requires noting that the second paragraph of the passage discusses small changes in demand for labor: their effect on unemployment is likely to be small because normal attrition can reduce the size of the work force accordingly.

- A The passage does not mention upswings in the economy in relation to small shifts in demand for labor. Furthermore, the passage indicates that structural unemployment can occur even at peaks of economic upswings, so presumably even if small downward shifts in the demand for labor are frequently accompanied by economic upswings, structural unemployment could still result.
- B The passage suggests that shifts in demand for workers that do not result in unemployment may be small *or* gradual. Nothing indicates that small changes are also necessarily gradual.
- C The second paragraph indicates that workers being encouraged to move to where there are jobs would be a reasonable response to large or rapid changes in demand for workers; it does not discuss such encouragement in relation to small shifts in demand.
- D **Correct.** The passage identifies normal attrition as a factor that can reduce the work force sufficiently to accommodate small reductions in the demand for labor in particular occupations.
- E Workers' ability to learn new skills is identified in the passage as a factor affecting whether structural unemployment will grow in response to large or rapid changes, not small changes, in the demand for workers in particular occupations.

**The correct answer is D.**

Questions 11–16 refer to the passage on page 24.

RC00113-01

11. The passage is primarily concerned with

- (A) explaining why one method of earthquake prediction has proven more practicable than an alternative method
- (B) suggesting that accurate earthquake forecasting must combine elements of long-term and short-term prediction
- (C) challenging the usefulness of dilatancy theory for explaining the occurrence of precursory phenomena
- (D) discussing the deficiency of two methods by which researchers have attempted to predict the occurrence of earthquakes
- (E) describing the development of methods for establishing patterns in the occurrence of past earthquakes

### Main idea

To answer this question, focus on what the passage as a whole is trying to do. The first paragraph describes a method for predicting the occurrence of earthquakes, and the second paragraph explains problems with that method. The third paragraph describes a second method for predicting the occurrence of earthquakes, and the fourth paragraph explains problems with that method. Thus, the passage as a whole is primarily concerned with explaining the deficiencies of two methods for predicting the occurrence of earthquakes.

- A The passage does not compare the practicability of the two methods.
- B The passage does not discuss combining long-term and short-term methods.
- C Only the first half of the passage discusses dilatancy theory; the second half discusses a different method for predicting the occurrence of earthquakes.
- D Correct.** The passage describes two methods for predicting the occurrence of earthquakes and explains the shortcomings of each method.

- E Only the second half of the passage discusses patterns in the occurrence of past earthquakes; the first half discusses a different method for predicting the occurrence of earthquakes.

**The correct answer is D.**

RC00113-02

12. According to the passage, laboratory evidence concerning the effects of stress on rocks might help account for

- (A) differences in magnitude among earthquakes
- (B) certain phenomena that occur prior to earthquakes
- (C) variations in the intervals between earthquakes in a particular area
- (D) differences in the frequency with which earthquakes occur in various areas
- (E) the unreliability of short-term earthquake predictions

### Supporting ideas

This question asks for information explicitly stated in the passage. The first paragraph explains that rocks subjected to stress in the laboratory undergo multiple changes. According to *dilatancy theory*, such changes happening to rocks in the field could lead to earthquake precursors—phenomena that occur before large earthquakes.

- A The passage explains how laboratory evidence might be used to predict the occurrence of large earthquakes, not to differentiate between earthquakes' magnitudes.
- B Correct.** According to dilatancy theory, the sort of changes that have been observed in laboratories to occur in rocks might lead to earthquake precursors in the field.
- C Although the passage discusses variation in earthquake intervals, that evidence is based on historical records, not laboratory evidence.
- D The passage does not refer in any way to differences in the frequency of earthquakes in various regions.

- E The unreliability of one method for making short-term earthquake predictions is implied by information gathered in the field, not by laboratory evidence.

**The correct answer is B.**

RC00113-03

13. It can be inferred from the passage that one problem with using precursory phenomena to predict earthquakes is that minor tremors

- (A) typically occur some distance from the sites of the large earthquakes that follow them
- (B) are directly linked to the mechanisms that cause earthquakes
- (C) are difficult to distinguish from major tremors
- (D) have proven difficult to measure accurately
- (E) are not always followed by large earthquakes

### Inference

This question asks what can be inferred from certain information in the passage. The second paragraph explains two problems with using minor tremors to predict earthquakes. First, minor tremors provide no information about how large an impending earthquake will be. Second, the minor tremors that occur prior to a large earthquake are indistinguishable from other minor tremors. Thus, it can be inferred that minor tremors sometimes occur when no large earthquake follows.

- A The passage does not mention the distance between minor tremors and ensuing earthquakes.
- B The passage implies that minor tremors sometimes occur without an ensuing earthquake, so the phenomena are most likely not directly linked.
- C The passage suggests no difficulty in distinguishing between minor tremors and major tremors.
- D The passage does not mention any difficulties in the measurement of minor tremors.

- E **Correct.** The passage indicates that minor tremors occurring prior to a large earthquake are indistinguishable from minor tremors that are not followed by large earthquakes. So the fact that minor tremors are not always followed by large earthquakes, together with the inability to distinguish between those that are and those that are not, poses a problem for any attempt to predict large earthquakes on the basis of this type of precursory phenomena.

**The correct answer is E.**

RC00113-04

14. According to the passage, some researchers based their research about long-term earthquake prediction on which of the following facts?

- (A) The historical record confirms that most earthquakes have been preceded by minor tremors.
- (B) The average interval between earthquakes in one region of the San Andreas Fault is 132 years.
- (C) Some regions tend to be the site of numerous earthquakes over the course of many years.
- (D) Changes in the volume of rock can occur as a result of building stress and can lead to the weakening of rock.
- (E) Paleoseismologists have been able to unearth and date geological features caused by past earthquakes.

### Supporting idea

This question asks for information explicitly provided in the passage. The question asks what the basis is for the research into long-term earthquake prediction described in the third paragraph. Based on the fact that numerous earthquakes occur in some regions over the course of many years, the researchers tried to identify regular earthquake intervals that would assist in making long-term predictions. Thus, the basis of their research is the occurrence of numerous earthquakes at particular sites.

- A The passage indicates that minor tremors are used by some scientists to make short-term earthquake predictions, not that they were the basis for research about long-term predictions.

- B This fact about the San Andreas Fault was used by paleoseismologists to show the inadequacy of the long-term prediction research, since actual earthquake intervals varied greatly from the average.
- C **Correct.** Since earthquakes occur repeatedly in certain regions, researchers tried to identify regular cycles in earthquake intervals.
- D The passage indicates that changes in rock volume have been used by some scientists to make short-term earthquake predictions, not that they were the basis for research about long-term predictions.
- E Paleoseismologists' research provided evidence against the existence of regular earthquake cycles used in making long-term predictions.

**The correct answer is C.**

RC00113-05

15. The passage suggests which of the following about the paleoseismologists' findings described in lines 42–50?
- (A) They suggest that the frequency with which earthquakes occurred at a particular site decreased significantly over the past two millennia.
- (B) They suggest that paleoseismologists may someday be able to make reasonably accurate long-term earthquake predictions.
- (C) They suggest that researchers may someday be able to determine which past occurrences of minor tremors were actually followed by large earthquakes.
- (D) They suggest that the recurrence of earthquakes in earthquake-prone sites is too irregular to serve as a basis for earthquake prediction.
- (E) They indicate that researchers attempting to develop long-term methods of earthquake prediction have overlooked important evidence concerning the causes of earthquakes.

## Inference

This question asks about what can be inferred from a particular portion of the passage (lines 42–50). The third paragraph describes research

that attempted to identify regular patterns of recurrence in earthquake-prone regions, to aid in long-term earthquake prediction. The fourth paragraph describes evidence discovered by paleoseismologists that undermines this idea that regular earthquake cycles exist. The paragraph indicates that in one region along the San Andreas Fault, the average interval between earthquakes was 132 years, but individual intervals varied widely—from 44 to 332 years. This information implies that earthquake intervals are too irregular to be used for accurate long-term earthquake prediction.

- A The evidence suggests that the earthquake intervals are irregular, not that they have become shorter over time.
- B The findings provide evidence against the use of regular earthquake cycles in long-term earthquake prediction.
- C The findings do not clearly pertain to minor tremors.
- D **Correct.** The great variation in intervals between earthquakes suggests that recurrence is too irregular to serve as the basis for long-term earthquake prediction.
- E The paleoseismologists studied evidence showing when earthquakes occurred. The passage does not suggest that the evidence has any implications regarding the causes of earthquakes.

**The correct answer is D.**

RC00113-07

16. The author implies which of the following about the ability of the researchers mentioned in line 18 to predict earthquakes?
- (A) They can identify when an earthquake is likely to occur but not how large it will be.
- (B) They can identify the regions where earthquakes are likely to occur but not when they will occur.
- (C) They are unable to determine either the time or the place that earthquakes are likely to occur.
- (D) They are likely to be more accurate at short-term earthquake prediction than at long-term earthquake prediction.

- (E) They can determine the regions where earthquakes have occurred in the past but not the regions where they are likely to occur in the future.

### Supporting idea

The question asks for information explicitly provided in the passage. The second paragraph indicates that researchers at first reported success in identifying earthquake precursors, but further analysis of the data undermined their theory. The passage then explains that atypical seismic waves were recorded before some earthquakes; this evidence at first seemed to support the researchers' theory, before further analysis proved the evidence inadequate.

- A Although earthquakes are caused by stress on rock, the passage does not indicate that this fact encouraged researchers to believe that precursors could be used to predict earthquakes.
- B This fact would undermine the theory that changes in seismic waves are precursory phenomena that can be used to predict earthquakes.
- C **Correct.** Seismic waves with unusual velocities occurring before earthquakes at first seemed to provide support for researchers' theory that earthquakes could be predicted by precursory phenomena.
- D Though earthquakes' recurrence in certain regions is mentioned as being important to researchers seeking to make long-term earthquake predictions, it is not mentioned as being relevant to researchers' theory that earthquakes can be predicted by precursory phenomena.
- E This is not mentioned as being relevant to scientists' belief that earthquakes could be predicted on the basis of precursory phenomena.

**The correct answer is C.**

Questions 17–23 refer to the passage on page 26.

- RC00492-01
17. It can be inferred from the passage that one reason an advertiser might prefer a hard-sell approach to a soft-sell approach is that
- (A) the risks of boomerang effects are minimized when the conclusions an advertiser wants the consumer to draw are themselves left unstated
  - (B) counterargumentation is likely from consumers who fail to draw their own conclusions regarding an advertising claim
  - (C) inferential activity is likely to occur even if consumers perceive themselves to be more knowledgeable than the individuals presenting product claims
  - (D) research on consumer memory suggests that the explicit conclusions provided by an advertiser using the hard-sell approach have a significant impact on decision making
  - (E) the information presented by an advertiser using the soft-sell approach may imply different conclusions to different consumers

### Inference

This question relies on what the passage suggests about the difference between the hard-sell and soft-sell approaches—and why the hard-sell approach might be preferred. The hard-sell approach, according to the second paragraph, presents explicit conclusions. The soft-sell approach, on the other hand, does not explicitly state conclusions about products; instead, consumers make up their own minds.

- A While the passage makes clear that boomerang effects are minimized when conclusions are left unstated, this is an advantage of the soft-sell approach over the hard-sell approach.
- B According to the second paragraph, counterargumentation is a disadvantage, not an advantage, of the hard-sell approach. This is a reason not to prefer the hard sell.

- C The third paragraph suggests that in cases in which consumers may perceive themselves as more knowledgeable than individuals presenting product claims, the soft-sell approach offers an advantage over the hard-sell approach.
- D According to the third paragraph, self-generated conclusions that are associated with the soft-sell approach have a greater impact on decision making than explicit conclusions. The passage does not allude to any research on memory that would favor the hard-sell approach.
- E **Correct.** The fourth paragraph suggests that one problem with the soft-sell approach is that consumers could miss the point; they may not come to the conclusions that the advertiser would prefer. Thus an advertiser might prefer a hard-sell approach.

**The correct answer is E.**

RC00492-02

18. Each of the following is mentioned in the passage as a characteristic of the hard-sell approach EXCEPT:
- (A) Its overall message is readily grasped.
- (B) It appeals to consumers' knowledge about the product.
- (C) It makes explicit claims that the advertised brand is superior to other brands.
- (D) It uses statements that are expressed very clearly.
- (E) It makes claims in the form of direct conclusions.

### Supporting idea

This question asks about what is directly stated in the passage about the hard-sell approach. The first and second paragraphs provide the details about this approach, including that it uses *direct, forceful claims* about benefits of a brand over competitors' brands; its claims are simple and straightforward, in the form of explicit conclusions; and consumers are generally left with little room for confusion about the message.

- A The second paragraph states that there is little room for confusion about the message.
- B **Correct.** The extent of consumers' knowledge about the product is not mentioned in the passage.

- C The first paragraph indicates that in the hard-sell approach advertisers make direct claims regarding the benefits of the advertised brand over other offerings.
- D The first and second paragraphs say that hard-sell claims are direct, simple, and straightforward.
- E The second paragraph emphasizes that the hard-sell approach presents its claims in the form of explicit conclusions.

**The correct answer is B.**

RC00492-03

19. It can be inferred from the passage that advertisers could reduce one of the risks discussed in the last paragraph if they were able to provide
- (A) motivation for consumers to think about the advertisement's message
- (B) information that implies the advertiser's intended conclusion but leaves that conclusion unstated
- (C) subtle evidence that the advertised product is superior to that of competitors
- (D) information comparing the advertised product with its competitors
- (E) opportunity for consumers to generate their own beliefs or conclusions

### Inference

This question requires understanding the risks discussed in the last paragraph of the passage. Those risks are, first, that consumers would not be motivated to think about the advertisement and thus would miss the message's point; second, that consumers may draw conclusions that the advertiser did not intend; and finally, that consumers could question the validity of the conclusions they reach, even if those conclusions are what advertisers intend.

- A **Correct.** Providing motivation for consumers to think about an advertisement's message would reduce the first risk discussed in the last paragraph: that consumers would fail to draw any conclusions because they would lack motivation to engage with advertisements.

- B Providing *information that implies a conclusion but leaves it unstated* is the very definition of the soft-sell approach, and it is this approach that gives rise to the risks discussed in the last paragraph.
- C Providing subtle evidence that a product is superior is most likely to give rise to all three of the risks identified in the last paragraph, in that its subtlety would leave consumers free to draw their own conclusions, to fail to draw those conclusions, or to question the validity of their own conclusions.
- D A direct comparison of the advertised product with its competitors would run all the risks identified in the last paragraph: consumers might not find the comparison motivating; they could draw conclusions that the advertiser did not intend (e.g., that the competing products are superior); or they could question whatever conclusions they do draw.
- E Giving consumers the opportunity to generate their own beliefs or conclusions is an intrinsic part of the soft-sell approach, which produces the risks discussed in the last paragraph.

**The correct answer is A.**

RC00492-04

20. The primary purpose of the passage is to
- point out the risks involved in the use of a particular advertising strategy
  - make a case for the superiority of one advertising strategy over another
  - illustrate the ways in which two advertising strategies may be implemented
  - present the advantages and disadvantages of two advertising strategies
  - contrast the types of target markets for which two advertising strategies are appropriate

## Inference

Overall, the passage is concerned with two advertising strategies. The first paragraph introduces the strategies. The second paragraph explains how a particular aspect of one approach may be both positive and negative and how the second approach mitigates these problems. The third paragraph continues this discussion of mitigation, while the fourth paragraph points out that there are drawbacks to this approach, too. Thus, according to the passage, both strategies have positive and negative aspects.

- A The passage is concerned not with one particular advertising strategy but with two, and it discusses benefits, as well as risks, involved with both strategies.
- B The passage does not suggest that one strategy is superior to the other but rather that each has positive and negative aspects.
- C The passage does not discuss how to implement either of the strategies it is concerned with; instead, it deals with how consumers are likely to respond once the implementation has already taken place.
- D Correct.** The passage is primarily concerned with showing that both of the strategies described have advantages and disadvantages.
- E The passage provides some indirect grounds for inferring the target markets for which each advertising strategy might be appropriate, but it is not primarily concerned with contrasting those markets.

**The correct answer is D.**

RC00492-05

21. Which of the following best describes the function of the sentence in lines 25–28 in the context of the passage as a whole?
- It reiterates a distinction between two advertising strategies that is made in the first paragraph.
  - It explains how a particular strategy avoids a drawback described earlier in the paragraph.
  - It suggests that a risk described earlier in the paragraph is less serious than some researchers believe it to be.

- (D) It outlines why the strategy described in the previous sentence involves certain risks for an advertiser.
- (E) It introduces an argument that will be refuted in the following paragraph.

## Evaluation

The sentence in lines 25–28 explains how the kinds of conclusions consumers are invited to draw based on the soft-sell approach reduce the risk that consumers will respond with *resentment, distrust, and counterargumentation*—that is, the possible *boomerang effect* identified earlier in the paragraph as a drawback of the hard-sell approach.

- A The sentence does not reiterate the distinction between the hard- and soft-sell approaches; rather, it explains an advantage of the soft-sell approach.
- B **Correct.** The sentence explains how the soft-sell approach avoids the problems that can arise from the hard-sell approach's explicitly stated conclusions.
- C The sentence suggests that the risk of boomerang effects described earlier in the paragraph is serious but that a different approach can mitigate it.
- D The sentence outlines why the strategy described in the previous sentence reduces advertisers' risks, not why it involves risks.
- E At no point does the passage refute the idea that implicit conclusions reduce the risk of boomerang effects. It does say that there could be drawbacks to the soft-sell approach, but those drawbacks are related to the problem with implicit conclusions themselves and how people reach them. In addition, the *following paragraph* does not mention the drawbacks, only the advantages of implicit conclusions.

**The correct answer is B.**

RC00492-06

22. It can be inferred from the passage that one situation in which the boomerang effect often occurs is when consumers
- (A) have been exposed to forceful claims that are diametrically opposed to those in an advertiser's message
- (B) have previous self-generated beliefs or conclusions that are readily accessible from memory
- (C) are subjected to advertising messages that are targeted at specific markets to which those consumers do not belong
- (D) are confused regarding the point of the advertiser's message
- (E) come to view the advertiser's message with suspicion

## Inference

The passage discusses the boomerang effect in the second paragraph. This effect is defined as consumers deriving conclusions from advertising that are the opposite of those that advertisers intended to present, and it occurs when consumers resent and/or distrust what they are being told.

- A The passage provides no grounds for inferring that consumers need to be exposed to opposing claims in order to believe such claims; they may reach opposing claims on their own.
- B The passage indicates that the boomerang effect can be reduced by using a soft-sell approach, which can result in self-generated conclusions, but it provides no evidence about any possible effects of preexisting self-generated beliefs or conclusions on the boomerang effect.
- C The passage does not address how consumers who are subjected to advertising messages not intended for them might respond.
- D Confusion regarding the point of the advertiser's message is more likely to occur, the passage suggests, when advertisers use a soft-sell approach—but it is the hard-sell approach, not the soft-sell, that is likely to result in the boomerang effect.

- E **Correct.** The second paragraph indicates that consumers who resent being told what to believe and come to distrust the advertiser's message—that is, those who view the message with suspicion—may experience a boomerang effect, believing the opposite of the conclusions offered.

**The correct answer is E.**

RC00492-07

23. It can be inferred from the passage that the research mentioned in line 29 supports which of the following statements?
- (A) Implicit conclusions are more likely to capture accurately the point of the advertiser's message than are explicit conclusions.
- (B) Counterargumentation is less likely to occur if an individual's beliefs or conclusions are readily accessible from memory.
- (C) The hard-sell approach results in conclusions that are more difficult for the consumer to recall than are conclusions resulting from the soft-sell approach.
- (D) When the beliefs of others are presented as definite and forceful claims, they are perceived to be as accurate as self-generated beliefs.
- (E) Despite the advantages of implicit conclusions, the hard-sell approach involves fewer risks for the advertiser than does the soft-sell approach.

## Inference

The research this item refers to—research on consumer memory and judgment—indicates that beliefs are more memorable when they are self-generated and so matter when making judgments and decisions. Further, self-generated beliefs seem more believable to those who have them than beliefs that come from elsewhere.

- A The fourth paragraph indicates that implicit conclusions are more likely to fail to replicate the advertiser's message than explicit conclusions are.

- B The research discussed in the passage does not address when counterargumentation is more or less likely to occur. Even though counterargumentation is a risk when consumers distrust the advertiser's message—as they may do when harder-to-recall explicit conclusions are given—it may be as much of a risk when consumers reach an implicit conclusion that is readily accessible from memory.
- C **Correct.** The research indicates that it is easier for consumers to recall conclusions they have reached on their own—that is, the sorts of conclusions that are encouraged by the soft-sell approach—than conclusions that have been provided explicitly, as happens in the hard-sell approach.
- D The research does not show that the forcefulness with which claims are presented increases perceptions of the accuracy of those claims. Indeed, it is most likely the opposite, as the forcefulness of others' claims may make them seem even less related to any conclusions the consumer might generate for him- or herself.
- E The research suggests that it is the soft-sell, not the hard-sell, approach that has fewer risks. The fourth paragraph indicates that there could be some risks to the implicit conclusions that consumers draw, but this is not part of the research in question.

**The correct answer is C.**

Questions 24–27 refer to the passage on page 28.

RC00222-01

24. It can be inferred from the passage that the two procedures described in the passage have which of the following in common?
- (A) They have been applied in practice.
- (B) They rely on the use of a device that measures tension.
- (C) Their purpose is to determine an unknown mass.
- (D) They can only be applied to small solid objects.
- (E) They involve attraction between objects of similar mass.

## Inference

The procedures described in the passage are introduced by the suggestion in the first paragraph that someone in a spaceship who wanted to determine a solid object's mass could do so in a particular way. The second paragraph uses the word *weigh* in quotes to refer to a similar procedure for determining the mass of a double-star system.

- A The language of the first paragraph is hypothetical: we *could* do particular things. Thus, there is no way to determine from the passage whether that procedure has been applied in practice.
- B The first procedure relies on a spring scale, which measures tension, but the second procedure measures time and distance to determine restraining force.
- C **Correct.** Both procedures determine mass: the first procedure can determine the mass of a small solid object on a spaceship in free fall, and the second can determine the mass of a double-star system.
- D The first procedure would, according to the passage, be applied to a small solid object, but the second *weighs* double-star systems, which are clearly not small objects.
- E The second procedure involves attraction between two stars, which could be of similar mass, in the same system, but the first procedure involves measuring tension in a string and speed of whirling, not attraction between objects.

## The correct answer is C.

RC00222-02

25. According to the passage, the tension in the string mentioned in lines 8–9 is analogous to which of the following aspects of a double-star system?
- (A) The speed with which one star orbits the other
  - (B) The gravitational attraction between the stars
  - (C) The amount of time it takes for the stars to circle one another
  - (D) The distance between the two stars
  - (E) The combined mass of the two stars

## Supporting idea

The second paragraph states that an *attractive force* is analogous to the tension in the string. This attractive force is identified in the previous sentence as the gravitational force between the two stars in a double-star system.

- A The second paragraph states that the speed with which the stars circle each other depends on the gravitational force between them, but it is that force that is analogous to the tension in the string.
- B Correct.** The second paragraph clearly identifies the gravitational force between the two stars as the attractive force that is analogous to the tension in the spring scale's string.
- C The amount of time it takes for the stars to circle one another is necessary for calculating the force that holds them together, but it is the force itself that is analogous to the string's tension.
- D The distance between the stars must be measured if the attraction between them is to be determined, but the attraction, not the distance, is analogous to the string's tension.
- E The combined mass of the two stars is what the procedure is designed to determine; it is analogous to the mass of the small solid object, as described in the first paragraph.

## The correct answer is B.

RC00222-03

26. Which of the following best describes the relationship between the first and the second paragraph of the passage?
- (A) The first paragraph provides an illustration useful for understanding a procedure described in the second paragraph.
  - (B) The first paragraph describes a hypothetical situation whose plausibility is tested in the second paragraph.
  - (C) The first paragraph evaluates the usefulness of a procedure whose application is described further in the second paragraph.
  - (D) The second paragraph provides evidence to support a claim made in the first paragraph.

- (E) The second paragraph analyzes the practical implications of a methodology proposed in the first paragraph.

### Evaluation

This question requires understanding that the second paragraph describes a somewhat difficult-to-understand procedure that the first paragraph illustrates in smaller, and simpler, terms.

- A** **Correct.** The first paragraph illustrates, hypothetically, a simple procedure for determining mass, and this illustration provides the grounds on which the passage explains the procedure of the second paragraph.
- B** The first paragraph describes a situation in hypothetical terms, but the second paragraph does not test that situation's plausibility. Instead, the second paragraph draws an analogy between the initial situation and another procedure.
- C** The first paragraph does not evaluate the usefulness of the procedure for determining a small solid object's mass while in a spaceship in freefall; it simply describes how that procedure would work.
- D** The second paragraph provides no evidence; it describes a procedure analogous to what is described in the first paragraph.
- E** The second paragraph does not discuss the practical implications of the first paragraph's methodology but rather a procedure that is analogous to the hypothetical situation of the first paragraph.

The correct answer is A.

RC00222-04

27. The author of the passage mentions observations regarding the period of a double-star system as being useful for determining
- the distance between the two stars in the system
  - the time it takes for each star to rotate on its axis
  - the size of the orbit the system's two stars occupy
  - the degree of gravitational attraction between the system's stars

- (E) the speed at which the star system moves through space

### Supporting idea

The author mentions the period of a double-star system in the final sentence of the second paragraph, defining it as the time required for stars to circle each other. Knowing this time, in combination with the distance between the stars, enables the determination of the restraining force between the stars.

- A** The final sentence of the second paragraph indicates that the period of a double-star system is measured independently of the distance between the two stars in the system.
- B** The passage is not concerned with how long it takes each star to rotate on its axis.
- C** The passage does not mention anyone's trying to determine the size of the orbit of a system's two stars. It does mention the related topic of distance between the stars but indicates that knowing such distance is required for measuring the stars' mass, not that it can be inferred from the period of the system.
- D** **Correct.** According to the passage, the restraining force, or gravitational attraction, between the two stars can be deduced based on the period and the distance between them.
- E** The passage does not mention the speed at which the star system moves through space.

The correct answer is D.

Questions 28–30 refer to the passage on page 30.

RC00267-01

28. The passage is primarily concerned with
- evaluating the evidence of a major geologic period and determining its duration
  - describing an evolutionary phenomenon and speculating about its cause
  - explaining the mechanisms through which marine life-forms evolved during a particular period

- (D) analyzing the impact on later life-forms of an important evolutionary development
- (E) contrasting a period of evolutionary change with other such periods

### Main idea

This question asks for an assessment of what the passage as a whole is doing. The passage is mainly concerned with a possible link between certain geological and ecological changes that occurred during the Ordovician period and the Ordovician radiation (when existing marine invertebrate life-forms gave rise to new variations that would eventually lead to new species).

- A The passage is not particularly concerned with determining the length of the period in question.
- B **Correct.** The passage is mainly concerned with a possible link between the evolutionary phenomenon of the Ordovician radiation and certain environmental changes that may have resulted in an enriched pattern of habitats and nutrients that could have fostered that radiation.
- C The passage indicates that the particular mechanisms through which marine life-forms evolved are not well understood.
- D Although the passage indicates that the changes it discusses ultimately did lead to new life-forms, it does not analyze that relationship.
- E The passage does not discuss any period of evolutionary change besides the Ordovician radiation.

### The correct answer is B.

RC00267-02

29. Which of the following can be inferred from the passage regarding the geologic changes that occurred during the Ordovician period?
- (A) They were more drastic than those associated with other radiations.
  - (B) They may have created conditions favorable to the evolution of many new life-forms.
  - (C) They may have caused the extinction of many of the marine species living in shallow waters.

- (D) They may have been a factor in the development of new species adapted to living both on land and in water.
- (E) They hastened the formation of the extensive dry regions found in the western United States.

### Inference

The question asks what can be inferred from the passage's claims regarding the geologic changes that took place during the Ordovician period. The passage indicates that during this period the sea level dropped and mountain ranges were formed and that these changes, rather than leading to large-scale extinctions, may have created more favorable habitats providing greater nutrients, which would likely have been favorable to newly evolved life-forms.

- A The passage does not mention other radiations and does not compare the Ordovician geologic changes to geologic changes associated with other radiations.
- B **Correct.** The passage does suggest that certain geologic changes that occurred during the Ordovician period may have created conditions favorable to the new life-forms associated with the Ordovician radiation.
- C The passage does not indicate whether any marine species became extinct; in fact, it explicitly denies that the geologic changes led to any large-scale extinctions.
- D The passage does not indicate that any new species were adapted to living both on land and in water. It merely discusses marine life-forms.
- E Although these geologic changes did likely create newly dry areas in the western United States, it does not indicate that these areas are *extensive*.

### The correct answer is B.

RC00267-03

30. Which of the following best describes the function of the last sentence of the passage?
- (A) It points out that the events described in the passage may be atypical.

- (B) It alludes to the fact that there is disagreement in the scientific community over the importance of the Ordovician radiation.
- (C) It concludes that the evidence presented in the passage is insufficient to support the proposed hypothesis because it comes from a limited geographic area.
- (D) It warns the reader against seeing a connection between the biological and geologic changes described in the passage.
- (E) It alerts the reader that current knowledge cannot completely explain the relationship suggested by the evidence presented in the passage.

## Evaluation

The last sentence of the passage functions primarily to indicate that, though certain evidence from the geologic record suggests a possible cause of the Ordovician radiation, the current level of knowledge regarding the relationship between environmental factors and that radiation is not sufficient for a full understanding of that relationship.

- A Although there may be certain geologic or evolutionary aspects of the Ordovician period that are atypical, the final sentence of the passage does not address them.
- B Neither the final sentence nor the rest of the passage addresses any disagreements within the scientific community.
- C Although the final sentence of the passage does indicate that current understanding of the relationship between the environmental factors discussed and the Ordovician radiation is incomplete, it does not indicate that it is because the evidence comes from a limited geographic area that the evidence is insufficient.
- D The last sentence does not advise against seeing a connection between the biological and geologic changes discussed; it merely advises that such a connection is not yet fully understood.

- E **Correct.** The last sentence indicates to the reader that current knowledge is insufficient for fully explaining the relationships among the evidence provided in the passage regarding geologic, ecological, and evolutionary changes.

**The correct answer is E.**

Questions 31–38 refer to the passage on page 32.

RC00141-01

31. The author of the passage is primarily concerned with
- (A) criticizing Locke's economic theories
  - (B) discounting the contribution of labor in a modern economy
  - (C) questioning the validity of the labor theory of value
  - (D) arguing for a more equitable distribution of business profits
  - (E) contending that employers are overcompensated for capital goods

## Main idea

This question depends on an understanding of the passage as a whole. The first paragraph describes the labor theory of value and the theory's historical origins in the philosophy of John Locke. The second paragraph provides some analysis of the theory and uses the analysis to support a critique.

- A The passage describes an historical connection between the labor theory of value and Locke's economic theories and suggests that the influence of Locke on the labor theory of value is one reason why, according to the author, the theory may be inadequate. This perhaps suggests an indirect criticism of Locke and his theories, via his influence on more recent theories. However, Locke's economic theories are not criticized directly and are not the focus of the passage.

- B Although the passage may suggest that a particular economic theory—the labor theory of value—may exaggerate the “contribution of labor in a modern economy” because the theory may neglect the importance of capital goods, the author does not suggest that the contribution of labor is unimportant.
- C **Correct.** This is the best answer. The second paragraph—more than half of the passage—is almost entirely focused on critiquing the labor theory of value. The first paragraph, by introducing the theory and providing some historical context, can be seen as supporting the critique, by introducing the theory to readers who may not be familiar with it.
- D The passage offers no argument for or against a more equitable distribution of business profits.
- E The point at issue in this option is similar to the point at issue in D, to do with what might be right or wrong, or more equitable, in matters concerning the distribution of money or “compensation.” The passage makes no argument as to what might be right or wrong in this respect.

**The correct answer is C.**

RC00141-02

32. According to the author of the passage, which of the following is true of the distribution of the income derived from the total output of consumer goods in a modern economy?
- (A) Workers receive a share of this income that is significantly smaller than the value of their labor as a contribution to total output.
- (B) Owners of capital goods receive a share of this income that is significantly greater than the contribution to total output attributable to the use of capital goods.
- (C) Owners of capital goods receive a share of this income that is no greater than the proportion of total output attributable to the use of capital goods.
- (D) Owners of capital goods are not fully compensated for their investment because they pay out most of their share of this income to workers as wages and benefits.

- (E) Workers receive a share of this income that is greater than the value of their labor because the labor theory of value overestimates their contribution to total output.

### Supporting idea

This question asks us to identify something that is true of the distribution of the income derived from all of the consumer goods that are produced in the modern economy.

- A The passage makes certain claims about the relative distribution of income between workers and the owners of capital goods, with respect to the income derived from the total output of consumer goods. However, no clear comparison is made between the share thus received by workers and the “value” of their labor.
- B The passage states that roughly one-third of the total output of consumer goods is attributable to the use of capital goods and that the owners of capital receive one-third of the income from this total output. The shares of income are roughly the same.
- C **Correct.** This is the best answer. As mentioned in connection with option B, the share of income to the owners of capital goods is roughly equal to the proportion of total output of consumer goods that can be attributed to the use of capital goods.
- D Although the passage mentions that some workers, because they are shareholders or pension beneficiaries, receive some of the income that “serves as compensation to the owners of capital goods,” there is no indication that this is *most* of the share that serves as the compensation to these owners. Furthermore, the workers who are, say, shareholders, may be owners of capital themselves. Therefore, the income that these workers receive as shareholders may be no reduction at all to the income received by the owners of capital.

- E The passage does not suggest that workers receive a share of the income derived from the total output of consumer goods that is greater than the value of their labor. And it provides no explanation of such a phenomenon.

**The correct answer is C.**

RC00141-04

33. Which of the following statements, if true, would most effectively counter the author's criticism of Locke at the end of the passage?
- (A) Locke was unfamiliar with the labor theory of value as it was formulated by his intellectual heirs.
  - (B) In Locke's day, there was no possibility of ordinary workers becoming shareholders or pension beneficiaries.
  - (C) During Locke's lifetime, capital goods did not make a significant productive contribution to the economy.
  - (D) The precise statistical calculation of the productive contributions of labor and capital goods is not possible without computers.
  - (E) The terms "capital goods" and "consumer goods" were coined by modern economists and do not appear in Locke's writings.

## Application

The question asks us to identify the most effective counter to the criticism of Locke that he is at least somewhat responsible for the fact, according to the author of the passage, that the labor theory of value "systematically disregards" the contribution of capital goods to production.

- A The criticism of Locke in question has to do with his supposed responsibility for a supposed flaw in a certain theory, presumably because of his influence on later theorizers. That Locke was "unfamiliar" with this theory, which did not exist at the time of Locke, does not significantly mitigate Locke's (supposed) responsibility for the (supposed) flaw in the theory.

- B Once we see what the criticism of Locke is, to do with a claim that he is responsible for a "systematic disregard" of a certain theory of the productive contribution of capital goods, we can see that this option is irrelevant.
- C **Correct.** Whatever the flaws in Locke's theories, it would seem wrong to hold him responsible for "neglecting" something—capital goods in this case—that was not a significant factor in his day. Given the fact (assuming that it is a fact) that capital goods were not a significant factor when Locke was alive, the responsibility for neglecting them (assuming that they have been neglected by economic theorists) may seem to rest with those who have neglected them after they have become a significant factor.
- D The precision of the calculation of the productive contributions of labor and capital goods—to the degree for which a computer would be necessary—is not a factor anywhere in the passage, and it would not be relevant to the criticism of Locke.
- E That certain terms are used today that were not used in the past does not indicate that there were not other terms that were used to refer to the same thing. And the mere fact of the word we happen to use to refer to capital goods is not relevant to the criticism of Locke.

**The correct answer is C.**

RC00141-05

34. Which of the following best describes the organization of the passage?
- (A) The author explores the origins of a theory and explains why the theory never gained widespread acceptance.
  - (B) The author introduces the premise of a theory, evaluates the premise by relating it to objective reality, then proposes a modification of the theory.
  - (C) After quoting a well-known authority, the author describes the evolution of a theory, then traces its modern form back to the original quotation.
  - (D) After citing a precursor of a theory, the author outlines and refutes the theory, then links its flaw to the precursor.

- (E) After tracing the roots of a theory, the author attempts to undermine the theory by discrediting its originator.

## Evaluation

The question asks us to identify the statement that most accurately describes the organization of the passage.

- A The author indeed explores an aspect of the origin of the labor theory of value, to do with the philosopher John Locke.

However, the author neither claims that the theory never gained widespread acceptance nor tries to explain a supposed fact that the theory never gained widespread acceptance.

- B Although the author explains a fundamental aspect of a theory—the labor theory of value—and then may seem to evaluate this aspect by “relating it to objective reality,” she or he does not propose a modification of the theory.

- C The passage indeed quotes John Locke, who is well known and may be considered an authority on certain matters. However, Locke would not be considered an authority on the contents of the labor theory of value, which, the passage suggests, did not exist at the time of Locke. Furthermore, much of the passage is devoted to developing a criticism of the theory. A good characterization of the passage would need to at least mention this criticism.

- D **Correct.** The author begins the passage by describing a theory of John Locke that is, according to the author, a precursor to the labor theory of value. Most of the second paragraph is devoted to a criticism of the theory, which the author ends by claiming that Locke is somewhat responsible for the supposed flaw.

- E The criticism of the labor theory of value is based on certain purported claims, made by the theory, about the economy that, according to the author, do not agree with the theory. The criticism of John Locke is then based on this critique of the theory, and the claim that Locke is somewhat responsible for the flaw in the theory that

the author claims to identify. Because the critique of the theory is thus not based on the critique of Locke, and thus not on something that would purportedly “discredit” him, this option is clearly incorrect.

**The correct answer is D.**

RC00141-06

35. Which of the following arguments would a proponent of the labor theory of value, as it is presented in the first paragraph, be most likely to use in response to lines 23–25?
- (A) The productive contributions of workers and capital goods cannot be compared because the productive life span of capital goods is longer than that of workers.
- (B) The author’s analysis of the distribution of income is misleading because only a small percentage of workers are also shareholders.
- (C) Capital goods are valuable only insofar as they contribute directly to the production of consumer goods.
- (D) The productive contribution of capital goods must be discounted because capital goods require maintenance.
- (E) The productive contribution of capital goods must be attributed to labor because capital goods are themselves products of labor.

## Application

The passage asks us to identify the most likely response of a proponent of the labor theory of value, as the theory is described in the passage, to lines 23–25. Because the statement in lines 23–25 is a criticism of the theory, it is reasonable to expect that a likely response of a proponent of the theory may be to defend the theory against this criticism.

- A The labor theory of value, as described by the author, would suggest that the relative contributions of workers and capital goods can be compared. According to the theory (as described by the author), it is labor that makes the fundamental contribution—a clear comparison. So the statement that the relative contributions cannot be so compared would not defend the theory.

- B Although this option may offer a reasonable criticism of an aspect of the passage, it does not offer a criticism of the point that is made in lines 23–25.
- C The statement in this option may seem to describe how, according to the author, capital goods get their value. Restating this point of the author would not defend the labor theory of value against the author's arguments.
- D This statement is consistent with the content of the passage; for example, the discount due to maintenance could already be figured into the calculations behind the author's claims as to the relative importance of capital goods and labor.
- E **Correct.** If the productive contribution of capital goods is attributed to labor, then the author's claim, against the labor theory of value, that this productive contribution should not be attributed to labor, would be incorrect. The labor theory of value might therefore be justified when, according to lines 23–25, it "systematically disregards the productive contribution of capital goods."

**The correct answer is E.**

RC00141-07

36. The author of the passage implies which of the following regarding the formulators of the labor theory of value?
- (A) They came from a working-class background.
- (B) Their views were too radical to have popular appeal.
- (C) At least one of them was a close contemporary of Locke.
- (D) They were familiar with Locke's views on the relationship between labor and the value of products.
- (E) They underestimated the importance of consumer goods in a modern economy.

### Inference

The question asks us to identify an inference that can be made regarding the people who formulated the labor theory of value.

- A Although it is plausible that the formulators of the theory may have been sympathetic with the interests of people who may be described as working class, there is no indication that the author of the passage actually has a working-class background.
- B Although at least some proponents of the theory have been considered radical, there is nothing in the passage that indicates this, or indicates whether or not the theory had popular appeal.
- C The "short step," mentioned in the passage, from Locke's theory of value to the labor theory of value, could seem to indicate a short step in time, whereby at least one of the formulators of the theory would be a rough contemporary of Locke. However, this would be an incorrect reading. Rather than a "step" in time, the "short step" in the passage refers to a logical step, whereby it would be a "short step" from one theory to another that resembles it in fundamental respects.
- D **Correct.** The passage strongly suggests that the formulators of the labor theory of value were influenced by Locke's views in certain fundamental respects. This indicates that the formulators would likely have been familiar with these views.
- E Although the author of the passage suggests that proponents of the labor theory of value may have significantly underestimated the importance of capital goods in the economy, no such suggestion is made about the importance of consumer goods.

**The correct answer is D.**

*Questions 37–42 refer to the passage on page 34.*

RC00688-01

37. The primary purpose of the passage is to
- (A) describe new ways of studying the possibility that life once existed on Mars
- (B) revise a theory regarding the existence of life on Mars in light of new evidence
- (C) reconcile conflicting viewpoints regarding the possibility that life once existed on Mars

- (D) evaluate a recently proposed argument concerning the origin of ALH84001  
 (E) describe a controversy concerning the significance of evidence from ALH84001

### Main idea

Answering this question requires determining the purpose of the passage as a whole. In the first paragraph, the passage indicates that a research team found that a Martian meteorite in Antarctica contains compelling evidence that life existed on Mars. The rest of the passage then describes arguments by skeptics against the research team's conclusion together with the research team's rebuttals to the skeptics' arguments.

- A While the passage discusses one type of evidence that life might have existed on Mars, it does not describe multiple ways of studying the possibility of Martian life, nor characterize any method of study as *new*.  
 B The passage merely reports and does not make any attempt at revising existing theories.  
 C The passage describes but does not try to reconcile conflicting viewpoints concerning life on Mars.  
 D The origin of ALH84001 is generally agreed upon (line 5), not a recently proposed hypothesis evaluated by the passage.  
 E

**Correct.** The passage describes opposing arguments about whether ALH84001 suggests life ever existed on Mars.

**The correct answer is E.**

RC00388-02

38. The passage asserts which of the following about the claim that ALH84001 originated on Mars?  
 (A) It was initially proposed by the McKay team of scientists.  
 (B) It is not a matter of widespread scientific dispute.  
 (C) It has been questioned by some skeptics of the McKay team's work.  
 (D) It has been undermined by recent work on PAHs.  
 (E) It is incompatible with the fact that ALH84001 has been on Earth for 13,000 years.

### Supporting ideas

This question requires recognizing what the passage indicates about a piece of information it offers. The passage states that *scientists generally agree* (line 5) that ALH84001 originated on Mars, which strongly suggests that there is not much dispute about it.

- A While it is possible that McKay's team initially made the proposal, the passage does not say so.  
 B **Correct.** In stating that scientists generally agree ALH84001 originated on Mars, the passage indicates there is no real controversy on this matter.  
 C The skeptics mentioned in the passage are not described as calling into question that ALH84001 originated on Mars.  
 D The passage does not tie the existence of PAHs in ALH84001 to questions about its Martian origins.  
 E The passage makes no connection between the time ALH84001 has been on the Earth and questions as to its Martian origins.

**The correct answer is B.**

RC00388-03

39. The passage suggests that the fact that ALH84001 has been on Earth for 13,000 years has been used by some scientists to support which of the following claims about ALH84001?  
 (A) ALH84001 may not have originated on Mars.  
 (B) ALH84001 contains PAHs that are the result of nonbiological processes.  
 (C) ALH84001 may not have contained PAHs when it landed on Earth.  
 (D) The organic molecules found in ALH84001 are not PAHs.  
 (E) The organic molecules found in ALH84001 could not be the result of terrestrial contamination.

### Supporting ideas

This question requires recognizing how a particular fact is used to support a particular point of view reported in the passage. In the second paragraph, the passage presents various skeptics' arguments about whether the PAHs in

ALH84001 originated on Mars. In lines 15–19, the passage indicates that some scientists see the fact that ALH84001 has been on Earth for 13,000 years as raising the possibility that the PAHs in ALH84001 resulted from *terrestrial contamination* or in other words that it did not contain PAHs when it landed on Earth.

- A The passage indicates only that most scientists believe that ALH84001 originated on Mars.
- B Although the passage indicates that skeptics have pointed out that PAHs can be formed by nonbiological processes, their point is not related to the length of time ALH84001 has been on Earth.
- C **Correct.** The passage indicates that some scientists believe that the PAHs in ALH84001 may have been transferred to it during its 13,000 years on Earth.
- D The passage does not indicate that any scientists doubt the presence of PAHs in ALH84001.
- E The passage indicates that the fact that ALH84001 has been on Earth for 13,000 years is used by some scientists to support the idea of terrestrial contamination.

**The correct answer is C.**

RC00388-04

40. The passage suggests that if a meteorite contained PAHs that were the result of terrestrial contamination, then one would expect which of the following to be true?
- (A) The meteorite would have been on Earth for more than 13,000 years.
  - (B) The meteorite would have originated from a source other than Mars.
  - (C) The PAHs contained in the meteorite would have originated from nonbiological processes.
  - (D) The meteorite would contain fewer PAHs than most other meteorites contain.
  - (E) The PAHs contained in the meteorite would be concentrated toward the meteorite's surface.

## Application

Answering this question involves applying information contained in the passage to a situation that is not described in the passage. According to the passage, some scientists believe that because ALH84001 has been on Earth for as long as 13,000 years, any PAHs contained in it may have been transferred from the Earth, a process the passage describes as *terrestrial contamination* (line 19). The passage also indicates that if terrestrial contamination occurred with ALH84001, then, contrary to the findings of McKay's team that showed PAH concentrations increasing *as one looks deeper into ALH84001* (lines 21–22), the PAHs would be expected to be concentrated more toward the outer parts, or surface, of ALH84001.

- A The passage indicates that scientists believe that 13,000 years is sufficient time for terrestrial contamination to happen.
- B The passage does not suggest that the origin of a meteorite affects its ability to become contaminated with terrestrial PAHs.
- C The passage does not indicate whether PAHs resulting from terrestrial contamination would be nonbiological or not.
- D The passage does not mention that different meteorites may contain different amounts of PAHs.
- E **Correct.** The passage suggests that if ALH84001 experienced terrestrial contamination, then the PAHs would be more concentrated toward the outer surface of the meteorite.

**The correct answer is E.**

RC00388-05

41. Which of the following best describes the function of the last sentence of the first paragraph?
- It identifies a possible organic source for the PAHs found in ALH84001.
  - It describes a feature of PAHs that is not shared by other types of organic molecules.
  - It explains how a characteristic common to most meteorites originates.
  - It suggests how the terrestrial contamination of ALH84001 might have taken place.
  - It presents evidence that undermines the claim that life once existed on Mars.

### Evaluation

This question requires understanding how a part of the passage functions within the passage as a whole. The first paragraph begins by establishing that McKay's team believes that the PAHs found in ALH84001 provide compelling evidence that life existed on Mars. To explain this, the passage indicates that PAHs are a type of organic molecules, which form the basis for life. Furthermore, to connect PAHs to possible life on Mars, the final sentence of the first paragraph indicates that one source of PAHs is the decay of dead microbes.

- Correct.** Without evidence of an organic source for the PAHs in ALH84001, the team's argument would not make sense.
- The passage indicates that PAHs can be formed by the decay of organic material from microbes but does not imply that other organic molecules cannot be formed this way.
- The sentence referred to explains one possible origin of a molecule found in ALH84001 but does not imply that most meteorites contain that molecule.
- The sentence referred to does not involve the process of terrestrial contamination.
- The sentence referred to provides information necessary to the team's argument that life may have existed on Mars.

**The correct answer is A.**

RC00388-06

42. The passage suggests that McKay's team would agree with which of the following regarding the PAHs produced by nonorganic processes?
- These PAHs are not likely to be found in any meteorite that has been on Earth for 13,000 years or more.
  - These PAHs are not likely to be found in any meteorite that originated from Mars.
  - These PAHs are not likely to be produced by star formation.
  - These PAHs are likely to be found in combinations that distinguish them from the PAHs produced by organic processes.
  - These PAHs are likely to be found in fewer meteorites than the PAHs produced by organic processes.

### Inference

This question involves understanding a particular point of view presented in the passage. The passage indicates in lines 11–13 that the organic molecules found in ALH84001 are PAHs. In lines 23–27, skeptics of McKay's team's findings point out that processes unrelated to organic life, including star formation, can produce PAHs. In the final sentence of the passage, McKay's team notes that the type of PAHs found in ALH84001 are more similar to those produced by organic processes than to those produced by nonorganic processes.

- McKay's team does not tie the presence of nonorganic PAHs in meteorites to the length of time the meteorites have been on Earth.
- McKay's team does not deny the possibility that at least some of the PAHs found in Martian meteorites are nonorganic in origin.
- McKay's team does not deny that PAHs can be produced by the formation of stars.
- Correct.** McKay's team notes in lines 29–34 that the PAH combinations produced by organic processes can be distinguished from those produced by nonorganic processes.
- McKay's team does not address the probability of nonorganic PAHs being found in meteorites.

**The correct answer is D.**

Questions 43–51 refer to the passage on pages 85–86.

RC00204-01

43. The author of the passage draws conclusions about the fur trade in North America from all of the following sources EXCEPT
- Cartier's accounts of trading with Native Americans
  - a seventeenth-century account of European settlements
  - a sixteenth-century account written by a sailing vessel captain
  - archaeological observations of sixteenth-century Native American sites
  - a sixteenth-century account of Native Americans in what is now New England

### Supporting idea

This question asks about the sources mentioned by the author of the passage. Answering the question correctly requires determining which answer option is NOT referred to in the passage as a source of evidence regarding the North American fur trade.

- Correct.** The passage mentions Cartier's voyage but does not refer to Cartier's accounts of his trading.
- In the first paragraph, Nicolas Denys's 1672 account of European settlements provides evidence of fur trading by sixteenth-century European fishing crews.
- In the second paragraph, a Portuguese captain's records provide evidence that the fur trade was going on for some time prior to his 1501 account.
- In the first paragraph, archaeologists' observations of sixteenth-century Native American sites provide evidence of fur trading at that time.
- In the second paragraph, a 1524 account provides evidence that Native Americans living in what is now New England had become selective about which European goods they would accept in trade for furs.

The correct answer is A.

RC00204-02

44. The passage suggests that which of the following is partially responsible for the difficulty in establishing the precise date when the fur trade in North America began?
- A lack of written accounts before that of Nicolas Denys in 1672
  - A lack of written documentation before 1501
  - Ambiguities in the evidence from Native American sources
  - Uncertainty about Native American trade networks
  - Uncertainty about the origin of artifacts supposedly traded by European fishing crews for furs

### Inference

The question asks about information implied by the passage. The first paragraph points out the difficulty of establishing exactly when the fur trade between Native Americans and Europeans began. The second paragraph explains that the first written record of the fur trade (at least the earliest known to scholars who study the history of the trade) dates to 1501, but that trading was already well established by that time. Thus, it can be inferred that lack of written records prior to 1501 contributes to the difficulty in establishing an exact date for the beginning of the fur trade.

- Two written records of the fur trade prior to the account by Nicolas Denys are mentioned in the passage. The passage does not suggest that a lack of written records from before 1672 is a source of the difficulty in establishing the date.
- Correct.** The passage indicates that the fur trade was well established by the time of the documentation dating from 1501 but strongly suggests that there is no known earlier documentation regarding that trade, so a lack of records before that time contributes to the difficulty in establishing an exact date.
- The only Native American sources mentioned in the passage are archaeological sites, and there is no indication of ambiguities at those sites.

- D Native American trade networks are not mentioned in the passage.
- E The passage mentions that fishing crews exchanged parts of their ships for furs and does not suggest any uncertainty about the origin of those artifacts.

**The correct answer is B.**

RC00204-03

45. Which of the following, if true, most strengthens the author's assertion in the first sentence of the second paragraph?
- (A) When Europeans retraced Cartier's voyage in the first years of the seventeenth century, they frequently traded with Native Americans.
- (B) Furs from beavers, which were plentiful in North America but nearly extinct in Europe, became extremely fashionable in Europe in the final decades of the sixteenth century.
- (C) Firing arms were rarely found on sixteenth-century Native American sites or on European lists of trading goods since such arms required frequent maintenance and repair.
- (D) Europeans and Native Americans had established trade protocols, such as body language assuring one another of their peaceful intentions, that antedate the earliest records of trade.
- (E) During the first quarter of the sixteenth century, an Italian explorer recorded seeing many Native Americans with what appeared to be copper beads, though they may have been made of indigenous copper.

## Evaluation

The question depends on evaluating an assertion made in the passage and determining which additional evidence would most strengthen it. The first sentence of the second paragraph claims that the fur trade was well established by the time Europeans sailing the Atlantic coast of America first documented it. The passage then indicates that the first written documentation of the trade dates to 1501. Thus, evidence showing that trade had been going on for some time before 1501 would strengthen (support) the assertion.

- A This evidence shows trade occurring in the first years of the seventeenth century, not prior to the first records from 1501.
- B This evidence shows trade occurring in the final decades of the sixteenth century, not prior to the first records from 1501.
- C This evidence does not indicate that trade took place prior to the first records from 1501.
- D **Correct.** Evidence that trade protocols had developed before the trade was first recorded (in 1501) would strengthen support for the assertion that trade was taking place prior to the earliest documentation.
- E Because the copper beads may have been made by Native Americans rather than acquired through trade with other societies, this observation would not provide evidence that trade with Europeans took place prior to 1501.

**The correct answer is D.**

RC00204-04

46. Which of the following best describes the primary function of lines 11–16?
- (A) It offers a reconsideration of a claim made in the preceding sentence.
- (B) It reveals how archaeologists arrived at an interpretation of the evidence mentioned in the preceding sentence.
- (C) It shows how scholars misinterpreted the significance of certain evidence mentioned in the preceding sentence.
- (D) It identifies one of the first significant accounts of seventeenth-century European settlements in North America.
- (E) It explains why Denys's account of seventeenth-century European settlements is thought to be significant.

## Evaluation

This question depends on understanding how the last sentence of the first paragraph functions in relation to the larger passage. The first paragraph explains that the earliest Europeans to trade with Native Americans were fishing crews near Newfoundland. The second-to-last sentence of the paragraph describes archaeological artifacts from Native American sites. The last sentence then explains that Nicolas Denys's 1672 account helped archaeologists realize that the artifacts were evidence of trade with fishing crews. Thus, the last sentence of the passage shows how archaeologists learned to interpret the evidence mentioned in the previous sentence.

- A The only claim made in the previous sentence is that archaeologists found a particular type of evidence. The final sentence of the paragraph does not suggest that this claim should be reconsidered.
- B **Correct.** After reading Denys's account, archaeologists were able to interpret the archaeological evidence mentioned in the previous sentence.
- C The passage suggests that archaeologists correctly interpreted the evidence, not misinterpreted it.
- D Denys's account is mentioned primarily to explain how archaeologists learned to interpret the archaeological evidence, not primarily to identify an important early account of settlements.
- E The passage does not discuss why Denys's account is significant, only that archaeologists used it to help understand the evidence mentioned in the previous sentence.

**The correct answer is B.**

RC00204-05

47. It can be inferred from the passage that the author would agree with which of the following statements about the fur trade between Native Americans and Europeans in the early modern era?
- (A) This trade may have begun as early as the 1480s.

- (B) This trade probably did not continue much beyond the 1530s.
- (C) This trade was most likely at its peak in the mid-1520s.
- (D) This trade probably did not begin prior to 1500.
- (E) There is no written evidence of this trade prior to the seventeenth century.

## Inference

The question requires determining which statement can most reasonably be inferred from the information in the passage. The passage argues that it is difficult to determine when the fur trade between Native Americans and Europeans began, since the earliest people to participate in that trade apparently left no written records. The second paragraph notes that at the time of the earliest known record in 1501, trade was already *well underway*. In the final two sentences of the passage, the author mentions an event that occurred in 1534 and then says that by that time the trade may have been going on for *perhaps half a century*.

- A **Correct.** The next-to-last sentence of the passage cites evidence of fur trade between Native Americans and Europeans in 1524. In the final sentence of the passage, the author mentions an event that happened a decade after that date—thus in 1534—and expresses the opinion that the trade started *perhaps half a century* (fifty years) before that later date. Fifty years before 1534 would be 1484. This implies that the author accepts that the trade may have begun by the 1480s.
- B The passage gives no indication that the author believes trade ended shortly after the 1530s.
- C The passage does not discuss when the fur trade was at its peak.
- D To the contrary, the passage argues that trade began well before 1501.
- E The passage mentions written evidence of the trade from 1501 and 1524.

**The correct answer is A.**

RC00204-06

48. Which of the following can be inferred from the passage about the Native Americans mentioned in line 24?
- They had little use for decorative objects such as earrings.
  - They became increasingly dependent on fishing between 1501 and 1524.
  - By 1524, only certain groups of Europeans were willing to trade with them.
  - The selectivity of their trading choices made it difficult for them to engage in widespread trade with Europeans.
  - The selectivity of their trading choices indicates that they had been trading with Europeans for a significant period of time prior to 1524.

### Inference

The question asks about information that can be inferred from the passage. The Native Americans mentioned in the 1524 chronicles accepted only certain kinds of European goods in trade. The passage indicates that these Native Americans *had become selective* about which goods they would accept, which implies that by 1524 they had been trading long enough to determine which European goods were most valuable to them.

- The passage does not imply that these Native Americans had no use for decorative objects, only that they did not desire to obtain such items through trade with Europeans.
- The passage does not suggest that the Native Americans' dependency on fishing changed over time.
- There is no indication that any groups of Europeans were unwilling to trade with these Native Americans.
- The passage notes that the Native Americans were selective in their trade choices but does not suggest that such selectivity made widespread trade difficult.
- Correct.** The passage notes that by 1524, the Native Americans had become selective about which European goods they would accept, and the passage takes this to indicate that the trade with Europeans significantly predicated 1524.

**The correct answer is E.**

RC00204-07

49. The passage supports which of the following statements about sixteenth-century European fishing crews working the waters off Newfoundland?
- They wrote no accounts of their fishing voyages.
  - They primarily sailed under the flag of Portugal.
  - They exchanged ship parts with Native Americans for furs.
  - They commonly traded jewelry with Native Americans for furs.
  - They carried surplus metal implements to trade with Native Americans for furs.

### Inference

The question asks which statement is supported by information provided in the passage. The first paragraph states that European fishing crews around Newfoundland were the first Europeans to trade goods for furs with Native Americans in the modern period. The last sentence of the paragraph states that archaeological evidence indicates the crews had dismantled their ships to trade ship parts for furs.

- The second sentence states that the crews left no written accounts of their trade with Native Americans, but it does not suggest that they left no written accounts of their voyages.
- The passage mentions one Portuguese vessel but does not suggest that the European crews who fished off Newfoundland were mostly on Portuguese vessels.
- Correct.** The last sentence of the first paragraph supports the conclusion that the crews traded ship parts for furs.
- The passage mentions one instance of a Native American acquiring earrings from Europeans but does not suggest that trades for such goods were common.
- The passage indicates that fishing crews traded metal implements with Native Americans but does not suggest that they brought surplus implements for that purpose—and in fact mentions that sometimes traded metal articles had been parts of their own ships.

**The correct answer is C.**

RC00204-08

50. Which of the following can be inferred from the passage about evidence pertaining to the fur trade between Native Americans and Europeans in the early modern era?
- A lack of written evidence has made it difficult to establish which Europeans first participated in this trade.
  - In general, the physical evidence pertaining to this trade has been more useful than the written evidence has been.
  - There is more written evidence pertaining to this trade from the early part of the sixteenth century than from later in that century.
  - The earliest written evidence pertaining to this trade dates from a time when the trade was already well established.
  - Some important pieces of evidence pertaining to this trade, such as Denys's 1672 account, were long overlooked by archaeologists.

### Inference

This question asks about information that can be inferred from the passage. Any suggestion that Native Americans may have produced written evidence of the early-modern trade with Europeans is absent from the passage. The second paragraph states that by the time Europeans first documented the fur trade, it was already well underway. This statement, in the context of the passage, implies that the earliest written records of the trade date to a time after it was well established.

- The first paragraph indicates that the first Europeans to participate in the trade were quite certainly fishing crews near Newfoundland.
- The passage gives no indication that physical evidence of the trade has been more useful than written evidence.
- Although the passage does not cite written evidence from the late sixteenth century, the passage gives no reason to believe that less written evidence exists from that time.

- D** **Correct.** According to the passage, the fur trade was well underway when written evidence of the trade was first documented by Europeans. The passage contains no suggestion that there might have been earlier documentation of that trade by anybody other than Europeans.
- E** The passage does not imply that archaeologists overlooked evidence for long periods of time.

The correct answer is D.

RC00204-09

51. The passage suggests which of the following about the sixteenth-century Native Americans who traded with Europeans on the coast of what is now called New England?
- By 1524 they had become accustomed to exchanging goods with Europeans.
  - They were unfamiliar with metals before encountering Europeans.
  - They had no practical uses for European goods other than metals and metal implements.
  - By 1524 they had become disdainful of European traders because such traders had treated them unfairly in the past.
  - By 1524 they demanded only the most prized European goods because they had come to realize how valuable furs were on European markets.

### Inference

The question asks about what is implied in the passage. The Native Americans trading with Europeans on the coast of what is now called New England are discussed in the 1524 chronicles mentioned in the second paragraph. The passage indicates that these Native Americans *had become selective* about which European goods they would accept in trade, which suggests they had become accustomed to trading with Europeans.

- A** **Correct.** By the time the chronicle was written, the Native Americans were familiar enough with trade to be able to specify which European goods they would accept.

- B Although the Native Americans chose to trade furs for European metal goods, the passage does not imply they were unfamiliar with any metals prior to encountering Europeans.
- C The passage does not suggest why Native Americans preferred certain goods over others.
- D The passage does not attribute disdain for European traders to Native Americans.
- E There is no indication in the passage that Native Americans were aware of furs' value in European markets.

**The correct answer is A.**

Questions 52–55 refer to the passage on page 38.

RC00201-01

52. The passage is primarily concerned with
- (A) describing the development of the biological species concept
- (B) responding to a critique of reproductive compatibility as a criterion for defining a species
- (C) considering two different approaches to identifying biological species
- (D) pointing out the advantage of one method of distinguishing related species
- (E) identifying an obstacle to the classification of biological species

### Main idea

This question depends on understanding the passage as a whole. The passage begins by explaining that identifying a species can be difficult, because there are different ways of defining the term. The biological species concept is one approach, but it has problems. Phenotype is another approach that can be used when the biological species concept proves difficult.

- A The first paragraph defines the biological species concept and identifies some problems with its application, but it does not explain how that concept developed.
- B The passage presents some critiques of reproductive compatibility as a way of

identifying a biological species; it does not concern itself with responding to those critiques.

- C **Correct.** The passage considers the biological species concept and the idea of phenotype as ways of identifying biological species.
- D While the passage identifies two ways of distinguishing species and states that some investigators use one of those methods—the phenotype method—when the biological method is difficult to apply, the passage is not primarily concerned with pointing out that either one is better than the other.
- E The passage does discuss certain obstacles to the classification of species. First, it points out that there is no single accepted definition of *distinct species*. Second, it points out obstacles related to one particular approach to the classification of species. However, the passage considers these obstacles in service of its primary concern, namely considering two different approaches to identifying biological species.

**The correct answer is C.**

RC00201-03

53. The author of the passage mentions “groups that live in different places” (line 21) most probably in order to
- (A) point out a theoretical inconsistency in the biological species concept
- (B) offer evidence in support of the biological species concept
- (C) identify an obstacle to the application of the biological species concept
- (D) note an instance in which phenotype classification is customarily used
- (E) describe an alternative to the biological species concept

### Evaluation

The author’s mention of *groups that live in different places* comes at the end of the first paragraph, in the context of discussing a third problem with the biological species concept: that investigators may not know whether animals in such groups are able to interbreed.

- A The author does not address theoretical inconsistencies in the biological species concept.
- B The author mentions groups that live in different places in order to address a problem with the biological species concept, not to support it.
- C **Correct.** One obstacle to applying the biological species concept is that those attempting to distinguish among species may not be able to determine whether geographically separated groups of animals can interbreed.
- D The passage does mention that some investigators use phenotype classification when the biological species concept is difficult to apply, but it does not mention specifically that a situation in which groups live in different places is an instance in which phenotype classification is customarily used.
- E Animal groups that live in different places pose a problem for the application of the biological species concept, according to the author. The author does not mention these groups in order to describe an alternative to that concept.

**The correct answer is C.**

RC00201-04

54. With which of the following statements regarding the classification of individual species would the author most likely agree?
- (A) Phenotype comparison may help to classify species when application of the biological species concept proves inconclusive.
  - (B) Because no standard definition exists for what constitutes a species, the classification of animal populations is inevitably an arbitrary process.
  - (C) The criteria used by biologists to classify species have not been based on adequate research.
  - (D) The existence of hybrids in wild animal species is the chief factor casting doubt on the usefulness of research into reproductive compatibility as a way of classifying species.
  - (E) Phenotype overlap should be used as the basic criterion for standardizing species classification.

## Inference

This question depends on understanding the general points the author makes with regard to classification of individual species. The author explains that there is no single definition of species and then describes the biological species concept, which depends on reproductive compatibility. This approach has several problems, however, and the author goes on to say that phenotype may be used when the biological species concept is difficult to apply.

- A **Correct.** The author states at the beginning of the second paragraph that some investigators use phenotype when they find it difficult to apply the biological species concept, and the passage provides no reason to believe that the author would disagree with the idea that phenotype comparison can be helpful in these situations.
- B The author would most likely not agree that classification of animal populations is arbitrary. Investigators use clearly defined approaches, such as the biological species concept and phenotype classification, to make such classifications. That there may be problems with an approach does not make it arbitrary.
- C The author states that the biological species concept can be too restrictive, but there is no suggestion that the author finds this approach, or phenotype classification, to be inadequately researched.
- D The author mentions hybridization first as a factor casting doubt on the usefulness of the biological species concept, but nothing in the passage suggests that the author thinks that it is more significant than the other reasons offered for finding the biological species concept too restrictive.
- E Phenotype overlap does not receive the author's endorsement as the best, or most basic, way of classifying species; instead, the author states merely that some investigators rely on this approach when they cannot apply the biological species concept.

**The correct answer is A.**

RC00201-05

55. Which of the following best describes the function of lines 10–13?

- (A) It elaborates the definition of the biological species concept given in a previous sentence.
- (B) It develops a point about the biological species concept made in the previous sentence.
- (C) It states the author's central point about the biological species concept.
- (D) It identifies a central assumption underlying the biological species concept.
- (E) It demonstrates why the biological species concept is invalid.

## Evaluation

The sentence in question discusses hybridization as a first factor complicating the applicability of the biological species concept. Thus its function is to help explain why, as the previous sentence states, that concept is too restrictive.

- A The sentence in question brings up a problem with the biological species concept; it does not elaborate the definition of that concept.
- B **Correct.** According to the sentence that precedes the sentence in question, the biological species concept can be too restrictive. The author offers three reasons to develop this point, and the first reason is given in the sentence in question.
- C The sentence in question could be said to support the author's central point about the biological species concept—that it is one (flawed) way of determining whether a population is a species—but it does not state that central point.
- D The sentence in question expresses a problem with the biological species concept, not a central assumption of it.
- E The sentence in question serves to indicate a problem with the biological species concept, but it does not go so far as to demonstrate that it is invalid.

**The correct answer is B.**

Questions 56–58 refer to the passage on page 40.

RC00322-01

56. The primary purpose of the passage is to
- (A) summarize findings in an area of research
  - (B) discuss different perspectives on a scientific question
  - (C) outline the major questions in a scientific discipline
  - (D) illustrate the usefulness of investigating a research topic
  - (E) reconcile differences between two definitions of a term

## Main point

The passage discusses two problems confronting researchers studying the genetic bases of animal behavior: the complexity of the control of most behaviors by multiple genes, and divergence between research fields in what counts as a behavioral gene. The passage focuses mainly on the latter issue, discussing how ethologists define “behavioral gene” in a narrower manner than neuroscientists, who define the term broadly. To elucidate the ethologists’ approach, two genes are discussed, one a behavioral gene, the other not.

- A The passage primarily aims to explain how researchers in two different research areas define “behavioral gene.” It does not try to summarize the research findings of either area.
- B **Correct.** The primary purpose of the passage is to identify differing perspectives on the scientific question of how genes control animal behavior.
- C The scientific disciplines of genetics, neuroscience, and ethology—all subdisciplines of biology—contain many different “major questions,” and the passage does not try to outline the great variety of such questions in any one of those subdisciplines.
- D The topic of the utility of doing research is not part of the passage discussion.

- E An important purpose of the passage is to illustrate divergence among scientific fields in how a key term is defined, but the point is to show how the definitions differ rather than to “reconcile” the difference.

**The correct answer is B.**

RC00322-02

57. The passage suggests that neuroscientists would most likely consider *Shaker* to be which of the following?
- An example of a behavioral gene
  - One of multiple genes that control a single behavior
  - A gene that, when mutated, causes an alteration in a specific normal behavior without making the organism ill
  - A gene of interest to ethologists but of no interest to neuroscientists
  - A poor source of information about the nervous system

### Application

The passage asserts that ethologists do not regard *Shaker* as a behavioral gene because it merely makes fruit flies exhibit unhealthy behavior (shaking under anesthesia). But neuroscientists, according to the passage, are mainly interested in how genes, via the nervous system, contribute to behavior. The passage suggests that neuroscientists, unlike ethologists, have no reservation about using the term *behavioral gene* to apply to any gene that contributes to behavior. The implication is that neuroscientists would probably regard *Shaker* as a behavioral gene.

- Correct.** The passage suggests that neuroscientists would probably regard *Shaker* as a behavioral gene.
- The passage indicates that research shows *Shaker* is a sufficient cause, in fruit flies, of shaking under anesthesia. Although some organism might display a behavior controlled by *Shaker* in concert with other genes, the passage is silent on any such possibility.

- C The passage lacks information as to whether there is any alteration—one that neuroscientists would likely consider healthy—in a normal behavior if the alteration is caused by a mutation in *Shaker*.
- D The passage indicates that neuroscientists' interest in genetics is part of their effort to understand the nervous system. This seems to imply that neuroscientists might be interested in *Shaker*.
- E The passage is silent on how neuroscientists would evaluate the potential for *Shaker* to contribute to understanding of the nervous system.

**The correct answer is A.**

RC00322-05

58. It can be inferred from the passage that which of the following, if true, would be most likely to influence ethologists' opinions about whether a particular gene in a species is a behavioral gene?
- The gene is found only in that species.
  - The gene is extremely difficult to identify.
  - The only effect of mutations in the gene is to make the organism ill.
  - Neuroscientists consider the gene to be a behavioral gene.
  - Geneticists consider the gene to be a behavioral gene.

### Application

The passage identifies two criteria that ethologists use in deciding whether a gene should count as a behavioral gene: a mutation in the gene alters a specific normal behavior and the mutation does not merely make the organism ill.

- The passage is silent on whether either of two genes identified by ethologists in fruit flies are to be found only in fruit flies. The two criteria mentioned used by ethologists carry no implication as to whether any gene unique to a given species would count as a behavioral gene.

- B The difficulty of identifying a gene can obviously be due to many factors, such as limitations in existing scientific techniques, and the passage does not imply that such difficulty increases the likelihood that a gene would count as a behavioral gene for ethologists.
- C **Correct.** The passage implies that if this were found to be true, ethologists would regard it as sufficient reason for not counting the gene as a behavioral gene.
- D A central theme of the passage is that whether ethologists would count a gene as a behavioral gene is largely unaffected by whether neuroscientists do so, given the divergent perspectives of the scientists' respective disciplines.
- E The main contrast in the passage with respect to definitions of the term *behavioral gene* is between ethologists and neuroscientists, and no specific definitional criteria for this term are explicitly attributed to geneticists. However, there is a slight suggestion that since geneticists find that most behaviors are governed by multiple genes, geneticists might regard any gene involved in the governance of a behavior as a behavioral gene. This approach, however, would be unlikely to influence the opinions of ethologists concerning definition.

**The correct answer is C.**

**Questions 59–63 refer to the passage on page 41.**

RC00079-01

59. The passage is primarily concerned with
- identifying historical circumstances that led Du Bois to alter his long-term goals
  - defining “accommodationism” and showing how Du Bois used this strategy to achieve certain goals
  - accounting for a particular position adopted by Du Bois during the First World War
  - contesting the view that Du Bois was significantly influenced by either Washington or Trotter

- (E) assessing the effectiveness of a strategy that Du Bois urged African Americans to adopt

### Main idea

This question asks what the passage as a whole is attempting to do. The passage opens by indicating that many African Americans were surprised by a political position taken by Du Bois in 1918, which seemed more accommodationist than expected. The passage then goes on to demonstrate that Du Bois often *shifted positions* (line 9) and states that Du Bois’s 1918 position was pragmatic in that it responded to real social pressure. The passage then indicates that Du Bois’s accommodationist stance *did not last* (line 31), and that he returned to a more confrontationist stance upon learning of the treatment of African Americans in the military.

- A The passage indicates that Du Bois did not change his long-term goals (lines 22–24).
- B *Accommodationism* is not defined in the passage but is associated with certain actions (community improvement), ideologies (solidarity), and leaders (Washington); the passage does not indicate if Du Bois was successful in achieving the accommodationist goals of 1895 (lines 11–15).
- C **Correct.** The passage explains why Du Bois took his accommodationist position and why he eventually rejected it.
- D The passage offers no judgment as to how much Du Bois was influenced by Washington or Trotter.
- E The passage does not indicate that there was widespread adoption of any of the strategies Du Bois recommended.

**The correct answer is C.**

RC00079-02

60. The passage indicates which of the following about Du Bois’s attitude toward Washington?
- It underwent a shift during the First World War as Du Bois became more sympathetic with Trotter’s views.

- (B) It underwent a shift in 1903 for reasons other than Du Bois's disagreement with Washington's accommodationist views.
- (C) It underwent a shift as Du Bois made a long-term commitment to the strategy of accommodation.
- (D) It remained consistently positive even though Du Bois disagreed with Washington's efforts to control the African American press.
- (E) It was shaped primarily by Du Bois's appreciation of Washington's pragmatic approach to the advancement of the interests of African Americans.

### Supporting ideas

Answering this question involves recognizing what the passage indicates about a particular point of view it describes. In line 15, the passage indicates that Du Bois praised Washington's ideas, but that in 1903 Du Bois aligned himself with *Washington's militant opponent* (lines 16–17), a shift the passage describes as being due less to *ideological reasons* (lines 17–21) than to political reasons.

- A The passage indicates that the shift described occurred in 1903, not during the First World War.
- B **Correct.** The passage indicates Du Bois's shift was not due to differences he had with Washington's ideas or views.
- C The passage indicates that Du Bois's accommodationist stance *did not last* (lines 30–31) and therefore was not a long-term commitment.
- D The passage indicates in lines 16–17 that Du Bois at one point aligned himself with Washington's militant opponent.
- E The passage indicates that Du Bois eventually rejected the accommodationist views of Washington.

The correct answer is B.

RC00079-04

61. The passage suggests which of the following about the contributions of African Americans to the United States war effort during the First World War?
- (A) The contributions were made largely in response to Du Bois's 1918 editorial.

- (B) The contributions had much the same effect as African Americans' contributions to previous wars.
- (C) The contributions did not end discrimination against African Americans in the military.
- (D) The contributions were made in protest against Trotter's confrontationist tactics.
- (E) The contributions were made primarily by civil rights activists who returned to activism after the war.

### Inference

This question requires making an inference from information given in the passage. The passage begins by indicating that Du Bois called on African Americans to suspend their fight for equality and to help with the war effort during the First World War. The final sentence of the passage, however, indicates that Du Bois learned that African Americans were experiencing *systematic discrimination* in the military during this time.

- A The passage does not indicate how African Americans responded to Du Bois's editorial other than that many African Americans were surprised by it.
- B The passage indicates that African Americans' participation in previous wars brought legal and political advances but that African Americans experienced discrimination in the First World War.
- C **Correct.** The passage indicates that African Americans experienced systematic discrimination in the military during the First World War.
- D The passage does not describe how African Americans responded to Trotter's tactics during the First World War.
- E The passage does not indicate whether African Americans involved in the war effort were primarily civil rights activists.

The correct answer is C.

RC00079-05

62. The author of the passage refers to Washington's call to African Americans in 1895 primarily in order to
- identify Du Bois's characteristic position on the continuum between accommodationism and confrontationism
  - explain why Du Bois was sympathetic with Washington's views in 1895
  - clarify how Trotter's views differed from those of Washington in 1895
  - support an assertion about Du Bois's tendency to shift his political positions
  - dismiss the claim that Du Bois's position in his 1918 editorial was consistent with his previous views

### Evaluation

This question requires understanding how a part of the passage functions within the passage as a whole. The passage begins by indicating that many African Americans were surprised by Du Bois's views in his 1918 editorial. The passage then explains that Du Bois *often shifted positions along the continuum* (lines 9–10). To demonstrate this, the passage indicates that Du Bois praised Washington's 1895 speech directed to African Americans, but that by 1903, Du Bois had aligned himself with Washington's *militant opponent* (lines 16–17).

- The passage indicates that Du Bois *shifted positions* (line 9) along the accommodationist-confrontationist continuum.
- The passage does not indicate why Du Bois praised Washington's 1895 speech.
- The passage does not indicate what Trotter's views of Washington's 1895 speech were.
- Correct.** The passage uses Du Bois's praise for Washington's 1895 speech and subsequent support of Trotter to illustrate Du Bois's tendency to shift positions.
- The passage does not include any claims that Du Bois's 1918 editorial was consistent with his previous views.

**The correct answer is D.**

RC00079-06

63. According to the passage, which of the following is true of the strategy that Du Bois's 1918 editorial urged African Americans to adopt during the First World War?
- It was a strategy that Du Bois had consistently rejected in the past.
  - It represented a compromise between Du Bois's own views and those of Trotter.
  - It represented a significant redefinition of the long-term goals Du Bois held prior to the war.
  - It was advocated by Du Bois in response to his recognition of the discrimination faced by African Americans during the war.
  - It was advocated by Du Bois in part because of his historical knowledge of gains African Americans had made during past wars.

### Supporting ideas

This question requires recognizing how a part of the passage functions within the passage as a whole. The passage begins by indicating that Du Bois's 1918 editorial called on African Americans to abandon political and social activism and help with the war effort in the First World War. In the second paragraph, the passage indicates that Du Bois's wartime position, expressed in his 1918 speech, was at least partly motivated by his belief that *African Americans' contributions to past war efforts had brought them some legal and political advances* (lines 28–30).

- The passage does not discuss whether Du Bois recommended this strategy prior to 1918.
- The passage does not indicate that Du Bois consciously compromised with Trotter's views.
- The passage indicates that his 1918 wartime views were *not a change in his long-term goals* (lines 22–23).
- The passage indicates that Du Bois's recognition of discrimination in the military caused him to reject his own 1918 wartime views.

- E** **Correct.** The passage indicates that Du Bois's 1918 views were influenced partly by a belief that past war efforts helped African Americans both legally and politically.

The correct answer is E.

Questions 64–70 refer to the passage on page 43.

RC00034-01

64. The primary purpose of the passage is to
- review research demonstrating the benefits of corporate mergers and acquisitions and examine some of the drawbacks that acquisition behavior entails
  - contrast the effects of corporate mergers and acquisitions on acquiring firms and on firms that are acquired
  - report findings that raise questions about a reason for corporate mergers and acquisitions and suggest possible alternative reasons
  - explain changes in attitude on the part of acquiring firms toward corporate mergers and acquisitions
  - account for a recent decline in the rate of corporate mergers and acquisitions

### Main idea

This question requires understanding what the passage as a whole is trying to do. The passage begins by citing three studies that demonstrate that when firms acquire other firms, there is not necessarily a worthwhile economic gain. The passage then cites economic interests as the reason given by firms when they acquire other firms but calls into question the veracity of this reasoning. The passage then goes on to speculate as to why mergers and acquisitions occur.

- The research cited in the passage calls into question whether mergers and acquisitions are beneficial to firms.
- The passage is not concerned with comparing the relative effects of mergers and acquisitions on the acquired and acquiring firms.

- C** **Correct.** The passage surveys reports that question the reasons given by firms when they acquire other firms and suggests other reasons for these acquisitions.
- D** The passage does not indicate that there has been a change in the attitude of acquiring firms toward mergers and acquisitions.
- E** The passage does not indicate that there has been a decline in the rate of mergers and acquisitions.

The correct answer is C.

RC00034-02

65. The findings cited in the passage suggest which of the following about the outcomes of corporate mergers and acquisitions with respect to acquiring firms?
- They include a decrease in value of many acquiring firms' stocks.
  - They tend to be more beneficial for small firms than for large firms.
  - They do not fulfill the professed goals of most acquiring firms.
  - They tend to be beneficial to such firms in the long term even though apparently detrimental in the short term.
  - They discourage many such firms from attempting to make subsequent bids and acquisitions.

### Inference

Answering this question requires recognizing what is inferable from information given in the passage. The passage begins by citing three studies that show that mergers and acquisitions often harm the economic goals of acquiring firms. The passage also indicates that, nonetheless, acquiring firms *continue to assert that their objectives are economic ones* (lines 15–16), suggesting that the goals of these firms are not met by acquiring other firms.

- The passage suggests that the stock of acquiring firms *tends to increase in value* (lines 12–13), albeit less than the firm it acquires.

- B The three studies cited in the passage do contrast the effects of corporate mergers on acquiring firms and on acquired firms, but the effects in question are significant only insofar as they contribute to the wider investigation into why mergers take place at all.
- C **Correct.** The passage indicates that even while acquiring firms cite economic goals, the results of the studies indicate that these goals are not being met.
- D The passage makes no comparison between the long-term and short-term gains of acquiring firms.
- E The passage does not indicate that firms have been affected by the results of the studies cited.

**The correct answer is C.**

RC00034-03

66. It can be inferred from the passage that the author would be most likely to agree with which of the following statements about corporate acquisitions?
- (A) Their known benefits to national economies explain their appeal to individual firms during the 1970's and 1980's.
- (B) Despite their adverse impact on some firms, they are the best way to channel resources from less to more productive sectors of a nation's economy.
- (C) They are as likely to occur because of poor monitoring by boards of directors as to be caused by incentive compensation for managers.
- (D) They will be less prevalent in the future, since their actual effects will gain wider recognition.
- (E) Factors other than economic benefit to the acquiring firm help to explain the frequency with which they occur.

## Inference

This question requires understanding what view the author has about a particular issue. The three studies cited by the passage all suggest that mergers and acquisitions do not necessarily bring economic benefit to the acquiring firms. The author concludes therefore that *factors having*

*little to do with corporate economic interests explain acquisitions* (lines 23–24) and then goes on to speculate as to what the reasons may actually be.

- A The passage indicates that while mergers and acquisitions may benefit the national economy, the appeal of mergers and acquisitions must be tied to companies' *private economic interests* (lines 19–22).
- B The passage makes no judgment as to the best way for firms to help channel resources from less to more efficient economic sectors.
- C The passage makes no comparison between the influence of poor monitoring by boards and that of executive incentives.
- D The passage makes no prediction as to future trends in the market for mergers and acquisitions.
- E **Correct.** The passage states that factors other than economic interests drive mergers and acquisitions.

**The correct answer is E.**

RC00034-04

67. The author of the passage mentions the effect of acquisitions on national economies most probably in order to
- (A) provide an explanation for the mergers and acquisitions of the 1970's and 1980's overlooked by the findings discussed in the passage
- (B) suggest that national economic interests played an important role in the mergers and acquisitions of the 1970's and 1980's
- (C) support a noneconomic explanation for the mergers and acquisitions of the 1970's and 1980's that was cited earlier in the passage
- (D) cite and point out the inadequacy of one possible explanation for the prevalence of mergers and acquisitions during the 1970's and 1980's
- (E) explain how modeling affected the decisions made by managers involved in mergers and acquisitions during the 1970's and 1980's

## Evaluation

This question requires understanding why a piece of information is included in the passage. After the passage cites the results of the three studies on mergers and acquisitions, which call into question the economic benefits of acquisitions, it indicates that firms nonetheless claim that their objectives are economic. The passage then states that while acquisitions *may well have* a desirable effect on national economies (lines 17–19), the results of the studies suggest that factors other than economic interest must drive executives to arrange mergers and acquisitions.

- A The passage does not mention national economies as part of an explanation for the occurrence of mergers and acquisitions.
- B The passage suggests that the effect of acquisitions on national economies is not tied to any explanations for why acquisitions occur.
- C The effect of acquisitions on national economies is not mentioned in the passage as an explanation for why acquisitions occur.
- D **Correct.** The passage uses the mention of national economies as part of a larger point questioning the stated motivations behind firms' efforts to acquire other firms.
- E In the passage, modeling is unrelated to the idea that acquisitions may have a desirable effect on national economies.

**The correct answer is D.**

RC00034-05

68. According to the passage, during the 1970's and 1980's, bidding firms differed from the firms for which they bid in that bidding firms
- (A) tended to be more profitable before a merger than after a merger
  - (B) were more often concerned about the impact of acquisitions on national economies
  - (C) were run by managers whose actions were modeled on those of other managers
  - (D) anticipated greater economic advantages from prospective mergers
  - (E) experienced less of an increase in stock value when a prospective merger was announced

## Supporting ideas

This question requires recognizing information contained in the passage. In lines 10–14, the passage describes the findings of the third study of mergers and acquisitions in the 1970's and 1980's. This study found that, after the announcement of a possible merger, the stock value of an acquiring, or bidding, firm increases much less than the stock value of the firm for which it is in the process of bidding.

- A The passage does not indicate whether the profitability of acquiring firms tended to be greater or less after a merger.
- B The passage does not indicate that acquiring firms were concerned about the impact of their actions on national economies.
- C The passage does not mention the actions of managers at firms that are being acquired.
- D The passage does not discuss whether acquiring firms tended to expect greater overall economic gains than actually occurred.
- E **Correct.** The passage indicates that the stock value of acquiring firms grew less than that of the firms they were attempting to acquire.

**The correct answer is E.**

RC00034-06

69. According to the passage, which of the following was true of corporate acquisitions that occurred during the 1970's and 1980's?
- (A) Few of the acquisitions that firms made were subsequently divested.
  - (B) Most such acquisitions produced only small increases in acquired firms' levels of profitability.
  - (C) Most such acquisitions were based on an overestimation of the value of target firms.
  - (D) The gains realized by most acquiring firms did not equal the amounts expended in acquiring target firms.
  - (E) About half of such acquisitions led to long-term increases in the value of acquiring firms' stocks.

## Supporting ideas

This question requires recognizing information contained in the passage. The passage reports on three studies of mergers and acquisitions in the 1970's and 1980's. In lines 7–10, the passage indicates that the second study found that the postacquisition gains to most of the acquiring firms did not offset, or at least equal, the price paid to acquire the firms.

- A The passage does not discuss post-acquisition divesting.
- B The passage indicates that on average, the profitability of acquired firms fell after being acquired (lines 5–7).
- C The passage does not indicate whether most acquiring firms overestimated the value of the firms they acquired.
- D Correct.** The passage states that for most acquiring firms the costs of buying the acquired firm were greater than the gains derived from acquiring it.
- E The passage does not indicate what percentage of acquiring firms, if any, experienced long-term gains in their stock value.

**The correct answer is D.**

RC00034-07

70. The author of the passage implies that which of the following is a possible partial explanation for acquisition behavior during the 1970's and 1980's?
- (A) Managers wished to imitate other managers primarily because they saw how financially beneficial other firms' acquisitions were.
  - (B) Managers miscalculated the value of firms that were to be acquired.
  - (C) Lack of consensus within boards of directors resulted in their imposing conflicting goals on managers.
  - (D) Total compensation packages for managers increased during that period.
  - (E) The value of bidding firms' stock increased significantly when prospective mergers were announced.

## Inference

This question requires recognizing what can be inferred from the information in the passage. After providing the results of the studies of mergers and acquisitions, the author concludes that even though acquiring firms state that their objectives are economic, factors having little to do with corporate economic interests explain acquisitions (lines 22–24). Among alternative explanations, the author points to managerial error in estimating the value of firms targeted for acquisition (lines 27–28) as possibly contributing to acquisition behavior in the 1970's and 1980's.

- A While the passage indicates that managers may have modeled their behavior on other managers, it does not provide a reason for why this would be so.
- B Correct.** The author states that one explanation for acquisition behavior may be that managers erred when they estimated the value of firms being acquired.
- C The author discusses a lack of monitoring by boards of directors but makes no mention of consensus within these boards.
- D The author does not discuss compensation packages for managers.
- E The passage does not state how significantly the value of the bidding firm's stock increased upon announcing a merger but only that it increased less in value than did the stock of the prospective firm being acquired.

**The correct answer is B.**

**Questions 71–75 refer to the passage on page 45**

RC00097-02

71. According to the passage, much of the research on Alessandra Strozzi done by the historian mentioned in the second paragraph supports which of the following conclusions?
- (A) Alessandra used her position as her sons' sole guardian to further interests different from those of her sons.

- (B) Alessandra unwillingly sacrificed her own interests in favor of those of her sons.
- (C) Alessandra's actions indicate that her motivations and intentions were those of an independent individual.
- (D) Alessandra's social context encouraged her to take independent action.
- (E) Alessandra regarded her sons' goals and interests as her own.

### Supporting ideas

According to the passage, a historian of women in Renaissance Europe attributes to a Florentine widow Alessandra Strozzi "individual intention and authorship of actions" and argues that she had significant individual goals and interests other than those of her sons. But the passage states that much of the historian's research indicates otherwise.

- A According to the passage, the historian's research provides much evidence that Alessandra Strozzi acted primarily to further her sons' interests.
- B The passage does not cite any of the historian's research to suggest that Strozzi was an unwilling champion of her sons' interest.
- C A theme of the passage is that the historian's research provides weak, if any, support for this claim.
- D The historian's research is not invoked in the passage to support this. The passage suggests that such a claim is more compatible with an anthropologist's idea that identity is socially and culturally determined and not necessarily "independent," as various historians assume.
- E **Correct.** The passage states: "much of the historian's own research reveals that Alessandra acted primarily as a champion of her sons' interests, taking their goals as her own."

The correct answer is E.

RC00097-03

72. In the first paragraph, the author of the passage mentions a contention that would be made by an anthropologist most likely in order to
- (A) present a theory that will be undermined in the discussion of a historian's study later in the passage
  - (B) offer a perspective on the concept of personhood that can usefully be applied to the study of women in Renaissance Europe
  - (C) undermine the view that the individuality of European women of the Renaissance was largely suppressed
  - (D) argue that anthropologists have applied the Western concept of individualism in their research
  - (E) lay the groundwork for the conclusion that Alessandra's is a unique case among European women of the Renaissance whose lives have been studied by historians

### Evaluation

The passage asserts that an anthropologist would contend that "a person can be conceived in ways other than as an 'individual.'" Immediately preceding this assertion, the passage asserts that certain historians think of a person as "an innately bounded unit, autonomous and standing apart from both nature and society." The passage invokes anthropology to support the view that perhaps the findings of those historians regarding individualism among women in Renaissance Europe are biased.

- A Anthropology is invoked to provide a corrective to the findings of the historians mentioned—not to provide a critique of any anthropological theory.
- B **Correct.** The passage makes the case that the anthropological view may be more useful than the historian's in the study of women in Renaissance Europe.
- C The passage cites no claim by historians that individuality of women in Renaissance Europe was largely suppressed, and the passage presents no argument to critique or refute such a claim.

- D The passage makes no such claim about anthropologists, but does make a similar claim about certain historians.
- E The passage does not state or imply that Strozzi was atypical of women in Renaissance Europe that historians have studied, nor is the anthropological conception of personhood invoked to underpin any such view.

**The correct answer is B.**

RC00097-04

73. The passage suggests that the historians referred to in line 1 make which of the following assumptions about Renaissance Europe?
- (A) That anthropologists overestimate the importance of the individual in Renaissance European society
- (B) That in Renaissance Europe, women were typically allowed to express their individuality
- (C) That European women of the Renaissance had the possibility of acting independently of the social context in which they lived
- (D) That studying an individual such as Alessandra is the best way to draw general conclusions about the lives of women in Renaissance Europe
- (E) That people in Renaissance Europe had greater personal autonomy than people do currently

## Evaluation

The passage suggests that the historians, in their studies of women in Renaissance Europe, held a preconceived notion of personhood—a notion that implied at least the possibility of individual autonomous action unaffected by social context. By implication, the passage ascribes a similar preconception to the historian whose study of Strozzi is discussed.

- A No view concerning anthropologists or their work is attributed, even by implication, to the historians.
- B Even if the historians held a view regarding the scope of what women in Renaissance Europe were typically allowed to do, the passage does not attribute such a view to them.

- C **Correct.** The passage implies that the historians assumed it was at least sometimes possible for women in Renaissance Europe to act autonomously, unaffected by social context.
- D The passage does not indicate that the historians assumed study of a single individual was the best approach to study of women's lives in Renaissance Europe.
- E The passage neither explicitly nor implicitly claims that the historians assumed women had more personal autonomy in Renaissance Europe than women have currently.

**The correct answer is C.**

RC00097-05

74. It can be inferred that the author of the passage believes which of the following about the study of Alessandra Strozzi done by the historian mentioned in the second paragraph?
- (A) Alessandra was atypical of her time and was therefore an inappropriate choice for the subject of the historian's research.
- (B) In order to bolster her thesis, the historian adopted the anthropological perspective on personhood.
- (C) The historian argues that the boundaries of the conceptual self were not always firm and closed in Renaissance Europe.
- (D) In her study, the historian reverts to a traditional approach that is out of step with the work of other historians of Renaissance Europe.
- (E) The interpretation of Alessandra's actions that the historian puts forward is not supported by much of the historian's research.

## Inference

The passage tells us that the historian who studied Strozzi “attributes individual intention and authorship of actions” to her. But the passage author claims that much of the historian's own research supports the view that, contrary to the historian's interpretation, “Alessandra did not distinguish her personhood from that of her sons”—and therefore that her actions did not primarily express personal autonomy.

- A Nothing in the passage implies that this is true or that the passage author believes it was so.
- B The passage is in direct contradiction with this claim about the historian, and it strongly suggests that the author of the passage would reject this claim.
- C The passage author makes this point concerning “the boundaries of the conceptual self” as part of the critique of the historian’s approach.
- D The passage author characterizes the historian’s approach neither as traditional nor as nontraditional; nor does the passage author contrast the historian’s approach with that of any other historian.
- E **Correct.** The passage author suggest that much of the historian’s research provides support for an interpretation that is incompatible with the historian’s own interpretation.

**The correct answer is E.**

RC00097-06

75. The passage suggests that the historian mentioned in the second paragraph would be most likely to agree with which of the following assertions regarding Alessandra Strozzi?
- (A) Alessandra was able to act more independently than most women of her time because she was a widow.
  - (B) Alessandra was aware that her personal motivation was embedded in a social context.
  - (C) Alessandra had goals and interests similar to those of many other widows in her society.
  - (D) Alessandra is an example of a Renaissance woman who expressed her individuality through independent action.
  - (E) Alessandra was exceptional because she was able to effect changes in the social constraints placed upon women in her society.

## Application

According to the passage, the historian whose study of Strozzi is discussed “attributes individual intention and authorship of actions” to her. The passage does not discuss whether, or how, the

historian may have regarded Strozzi’s widowhood as relevant to her exercise of autonomy; nor does the passage discuss the extent to which, if at all, the historian regarded Strozzi’s actions, goals, or interests as typical of women in Renaissance Europe.

- A The passage provides no evidence as to whether the historian would agree with this.
- B The passage does not attribute to the historian, even implicitly, a view that Strozzi’s personal motivation was primarily “embedded in a social context”; so the historian would likely believe that Strozzi herself did not see her personal motivation as so embedded.
- C The passage provides no evidence as to whether the historian would regard Strozzi’s goals and interests as resembling those of other widows in her society.
- D **Correct.** The first sentence of the second paragraph indicates that the historian treats Strozzi as an example of a Renaissance woman who expressed her individuality through independent action.
- E The passage provides no evidence that the historian viewed Strozzi as exceptional in effecting any kind of social change.

**The correct answer is D.**

Questions 76–82 refer to the passage on page 47.

RC00054-01

76. According to the passage, conventional spiral galaxies differ from low-surface-brightness galaxies in which of the following ways?
- (A) They have fewer stars than do low-surface-brightness galaxies.
  - (B) They evolve more quickly than low-surface-brightness galaxies.
  - (C) They are more diffuse than low-surface-brightness galaxies.
  - (D) They contain less helium than do low-surface-brightness galaxies.
  - (E) They are larger than low-surface-brightness galaxies.

## Supporting ideas

This question requires recognizing information that is provided in the passage. The first paragraph describes and compares two types of galaxies: conventional galaxies and dim, or low-surface-brightness, galaxies. It states that dim galaxies have the same approximate number of stars as a common type of conventional galaxy but tend to be larger and more diffuse because their mass is spread over wider areas (lines 4–10). The passage also indicates that dim galaxies take longer than conventional galaxies to convert their primordial gases into stars, meaning that dim galaxies evolve much more slowly than conventional galaxies (lines 10–14), which entails that conventional galaxies evolve more quickly than dim galaxies.

- A The passage states that dim galaxies have approximately the same numbers of stars as a common type of conventional galaxy.
- B **Correct.** The passage indicates that dim galaxies evolve much more slowly than conventional galaxies, which entails that conventional galaxies evolve more quickly.
- C The passage states that dim galaxies are more spread out, and therefore more diffuse, than conventional galaxies.
- D The passage does not mention the relative amounts of helium in the two types of galaxies under discussion.
- E The passage states that dim galaxies tend to be much larger than conventional galaxies.

**The correct answer is B.**

RC00054-02

77. It can be inferred from the passage that which of the following is an accurate physical description of typical low-surface-brightness galaxies?
- (A) They are large spiral galaxies containing fewer stars than conventional galaxies.
  - (B) They are compact but very dim spiral galaxies.
  - (C) They are diffuse spiral galaxies that occupy a large volume of space.
  - (D) They are small, young spiral galaxies that contain a high proportion of primordial gas.
  - (E) They are large, dense spirals with low luminosity.

## Inference

This question requires drawing an inference from information given in the passage. The first paragraph compares dim galaxies and conventional galaxies. Dim galaxies are described as having the same general shape (lines 4–5) as a common type of conventional galaxy, the spiral galaxy, suggesting that dim galaxies are, themselves, spiral shaped. The passage also indicates that, although both types of galaxies tend to have approximately the same number of stars, dim galaxies tend to be much larger and spread out over larger areas of space (lines 4–10) than conventional galaxies.

- A The passage states that the two types of galaxies have approximately the same number of stars.
- B The passage indicates that dim galaxies are relatively large and spread out.
- C **Correct.** The passage indicates that dim galaxies have the same general shape as spiral galaxies and that their mass is spread out over large areas of space.
- D The passage indicates that dim galaxies are relatively large and spread out.
- E The passage states that dim galaxies have few stars per unit of volume, suggesting that they are not dense but diffuse.

**The correct answer is C.**

RC00054-03

78. It can be inferred from the passage that the “long-standing puzzle” refers to which of the following?
- (A) The difference between the rate at which conventional galaxies evolve and the rate at which low-surface-brightness galaxies evolve
  - (B) The discrepancy between estimates of total baryonic mass derived from measuring helium and estimates based on measuring galactic luminosity
  - (C) The inconsistency between the observed amount of helium in the universe and the number of stars in typical low-surface-brightness galaxies
  - (D) Uncertainties regarding what proportion of baryonic mass is contained in intergalactic space and what proportion in conventional galaxies

- (E) Difficulties involved in detecting very distant galaxies and in investigating their luminosity

### Inference

This question requires drawing an inference from information given in the passage. The second paragraph describes *the long-standing puzzle of the missing baryonic mass in the universe*. The passage states that baryons are the source of galactic luminosity, and so scientists can estimate the amount of baryonic mass in the universe by measuring the luminosity of galaxies (lines 17–21). The puzzle is that spectroscopic measures of helium in the universe suggest that the baryonic mass in the universe is much higher than measures of luminosity would indicate (21–25).

- A The differences between the rates of evolution of the two types of galaxies is not treated as being controversial in the passage.
- B **Correct.** The passage indicates that measurements using spectroscopy and measurements using luminosity result in puzzling differences in estimates of the universe's baryonic mass.
- C The passage does not suggest how helium might relate to the numbers of stars in dim galaxies.
- D The passage indicates that astronomers have speculated that the missing baryonic mass might be discovered in intergalactic space or hard-to-detect galaxies but does not suggest that these speculations are constituents of the long-standing puzzle.
- E The passage does not mention how the distance to galaxies affects scientists' ability to detect these galaxies.

**The correct answer is B.**

RC00054-04

79. The author implies that low-surface-brightness galaxies could constitute an answer to the puzzle discussed in the second paragraph primarily because
- (A) they contain baryonic mass that was not taken into account by researchers using galactic luminosity to estimate the number of baryons in the universe
  - (B) they, like conventional galaxies that contain many baryons, have evolved from massive, primordial gas clouds
  - (C) they may contain relatively more helium, and hence more baryons, than do galaxies whose helium content has been studied using spectroscopy
  - (D) they have recently been discovered to contain more baryonic mass than scientists had thought when low-surface-brightness galaxies were first observed
  - (E) they contain stars that are significantly more luminous than would have been predicted on the basis of initial studies of luminosity in low-surface-brightness galaxies

- (B) they, like conventional galaxies that contain many baryons, have evolved from massive, primordial gas clouds
- (C) they may contain relatively more helium, and hence more baryons, than do galaxies whose helium content has been studied using spectroscopy
- (D) they have recently been discovered to contain more baryonic mass than scientists had thought when low-surface-brightness galaxies were first observed
- (E) they contain stars that are significantly more luminous than would have been predicted on the basis of initial studies of luminosity in low-surface-brightness galaxies

### Inference

This question requires drawing an inference from information given in the passage. The puzzle is that estimates of the baryonic mass of the universe based on luminosity are lower than those based on spectroscopy (lines 21–25). The passage states that astronomers did not notice dim galaxies until recently (lines 2–3) and that these galaxies may help account for the missing baryonic mass in the universe (lines 15–17). The passage also suggests that astronomers measure the luminosity of specific galaxies (lines 19–21). Thus it can be inferred that, prior to their being noticed by astronomers, the luminosity of these dim galaxies was not measured, and their baryonic mass was not taken into account in the estimates of luminosity that led to the long-standing puzzle.

- A **Correct.** The passage states that the missing baryonic mass in the universe may be discovered in the dim galaxies that have only recently been noticed by astronomers.
- B The passage does not suggest that dim and conventional galaxies both originating from primordial gas clouds help solve the long-standing puzzle of the missing baryonic mass in the universe.
- C The passage does not suggest that dim galaxies might contain more helium than do conventional galaxies or that measures of baryonic mass using spectroscopy do not take some dim galaxies into account.

- D The passage does not suggest that dim galaxies contain more baryonic mass than scientists originally believed upon discovering these galaxies.
- E The passage suggests that scientists measured the luminosity of galaxies, not of individual stars.

**The correct answer is A.**

RC00054-05

80. The author mentions the fact that baryons are the source of stars' luminosity primarily in order to explain
- (A) how astronomers determine that some galaxies contain fewer stars per unit volume than do others
- (B) how astronomers are able to calculate the total luminosity of a galaxy
- (C) why astronomers can use galactic luminosity to estimate baryonic mass
- (D) why astronomers' estimates of baryonic mass based on galactic luminosity are more reliable than those based on spectroscopic studies of helium
- (E) how astronomers know bright galaxies contain more baryons than do dim galaxies

## Evaluation

This question requires understanding how one aspect of the passage relates to the reasoning in a larger portion of the passage. The second paragraph explains that scientists have been puzzled over missing baryonic mass in the universe as measured by luminosity (lines 21–25). Given that baryons are the source of luminosity in the galaxy (lines 17–19), astronomers can estimate the baryonic mass of a galaxy by measuring its luminosity.

- A The passage discussion of baryons does not address the number of stars in individual galaxies.
- B The passage discusses how the luminosity of galaxies can be used to estimate baryonic mass but does not address how total luminosity is measured.

- C **Correct.** The passage indicates that because baryons are the source of galactic luminosity, measuring luminosity can be used to estimate baryonic mass of galaxies.
- D The passage suggests that estimates based on luminosity may have been less accurate, not more accurate, than those based on spectroscopy.
- E The passage does not indicate that bright galaxies contain more baryons than do dim galaxies.

**The correct answer is C.**

RC00054-06

81. The author of the passage would be most likely to disagree with which of the following statements?
- (A) Low-surface-brightness galaxies are more difficult to detect than are conventional galaxies.
- (B) Low-surface-brightness galaxies are often spiral in shape.
- (C) Astronomers have advanced plausible ideas about where missing baryonic mass might be found.
- (D) Astronomers have devised a useful way of estimating the total baryonic mass in the universe.
- (E) Astronomers have discovered a substantial amount of baryonic mass in intergalactic space.

## Inference

This question involves identifying which answer option potentially conflicts with the information the author has provided in the passage. The second paragraph indicates that astronomers' estimates of the baryonic mass of the universe is lower when measured using luminosity than it is when measured using spectroscopy (lines 21–25). The final sentence states that astronomers have speculated that the missing baryonic mass might be discovered in intergalactic space or in hard-to-detect galaxies (lines 25–29). Although the passage does indicate that the discovery of dim, low-surface-brightness galaxies might help account for the missing baryonic mass (lines 15–17), the passage provides no support for the possibility that baryonic mass has been discovered in intergalactic space.

- A The passage indicates that low-surface-brightness galaxies went unnoticed until recently, unlike conventional galaxies.
- B The passage indicates that low-surface-brightness galaxies have the same general shape as spiral galaxies.
- C The passage describes two possible explanations astronomers have given for the missing baryonic mass, one of which was made more plausible by the discovery of low-surface-brightness galaxies.
- D The passage indicates that astronomers have used spectroscopy to estimate baryonic mass and gives no reason to suspect that this method is not useful.
- E **Correct.** The passage does not indicate that astronomers have found any baryonic mass in intergalactic space.

**The correct answer is E.**

RC00054-07

82. The primary purpose of the passage is to
- (A) describe a phenomenon and consider its scientific significance
- (B) contrast two phenomena and discuss a puzzling difference between them
- (C) identify a newly discovered phenomenon and explain its origins
- (D) compare two classes of objects and discuss the physical properties of each
- (E) discuss a discovery and point out its inconsistency with existing theory

### Main idea

This question requires understanding, in broad terms, the purpose of the passage as a whole. The first paragraph describes a phenomenon: the discovery of dim galaxies and some of their general attributes. The second paragraph describes how this discovery may help astronomers to solve a long-standing puzzle about the baryonic mass of the universe.

- A **Correct.** The passage describes the phenomenon of dim galaxies and describes their significance in solving the long-standing puzzle of the missing baryonic mass in the universe.
- B Although the passage discusses the puzzling difference between the two estimates of baryonic mass, this option does not account for the broader topic of dim galaxies.
- C While the passage identifies the newly discovered phenomenon of dim galaxies, it does not offer a significant explanation for these galaxies' origins.
- D Although the passage compares dim and conventional galaxies in the first paragraph, this option does not account for the important detail that dim galaxies may help solve a long-standing puzzle.
- E The discovery of dim galaxies discussed in the passage is not said to be inconsistent with any existing scientific theory.

**The correct answer is A.**

Questions 83–88 refer to the passage on page 49.

RC11238-01

83. The primary purpose of the passage is to
- (A) contrast possible outcomes of a type of business investment
- (B) suggest more careful evaluation of a type of business investment
- (C) illustrate various ways in which a type of business investment could fail to enhance revenues
- (D) trace the general problems of a company to a certain type of business investment
- (E) criticize the way in which managers tend to analyze the costs and benefits of business investments

## Main idea

Look at the passage as a whole to find the primary purpose. This passage uses an example, described in the second paragraph, to illustrate the principle of business practice explained in the first paragraph. The author begins by saying that efforts to improve service do not always result in a *competitive advantage* for a company. Thus, an investment in service must be carefully evaluated to determine if it will reduce costs or increase revenues (lines 4–8).

- A Only one outcome, failure to gain a competitive advantage, is examined.
- B **Correct.** Investments in service must be carefully evaluated for the returns they will bring.
- C Only one way, an unnecessary investment in improved service, is discussed.
- D The example of the bank is used only to illustrate a general business principle; the bank itself is not the focus of the passage.
- E The passage criticizes the absence of such an analysis, not the way it is conducted.

**The correct answer is B.**

RC11238-02

84. According to the passage, investments in service are comparable to investments in production and distribution in terms of the
- (A) tangibility of the benefits that they tend to confer
  - (B) increased revenues that they ultimately produce
  - (C) basis on which they need to be weighed
  - (D) insufficient analysis that managers devote to them
  - (E) degree of competitive advantage that they are likely to provide

## Supporting ideas

The phrase *according to the passage* indicates that the question covers material that is explicitly stated in the passage. The answer to this question demands a careful reading of the second sentence (lines 4–8). Investments in service are like investments in production and distribution because they *must be balanced against other types of investments on the basis of direct, tangible benefits*.

Thus, these investments should be weighed on the same basis.

- A The author is not equating the tangible benefits the different kinds of investments reap but rather the basis on which decisions to make investments are made.
- B Revenues generated from investing in service are not said to be comparable to revenues generated from investing in production and distribution.
- C **Correct.** An evaluation of whether or not to make these investments must be made on the same basis.
- D How managers analyze investments in production and distribution is not discussed.
- E The competitive advantage of superior service is acknowledged, but not the degree of it; it is not mentioned at all in the context of production and distribution.

**The correct answer is C.**

RC11238-03

85. The passage suggests which of the following about service provided by the regional bank prior to its investment in enhancing that service?
- (A) It enabled the bank to retain customers at an acceptable rate.
  - (B) It threatened to weaken the bank's competitive position with respect to other regional banks.
  - (C) It had already been improved after having caused damage to the bank's reputation in the past.
  - (D) It was slightly superior to that of the bank's regional competitors.
  - (E) It needed to be improved to attain parity with the service provided by competing banks.

## Inference

Because the question uses the word *suggests*, finding the answer depends on making an inference about service at the bank. The paragraph that discusses the bank begins with the transitional expression, *this truth*, which refers to the previous sentence (lines 8–15). The *truth* is that investing in improved service is a waste if a company is already effectively on a par with its competitors because it provides service that avoids

a damaging reputation and keeps customers from leaving at an unacceptable rate. Because of the way the author has linked this generalization to the description of the bank after investment, it is reasonable to infer that the hypothetical company's situation describes the bank prior to its investment in improved service.

- A **Correct.** The bank's service would have been good enough to avoid a damaging reputation and to retain customers at an acceptable rate.
- B The passage does not suggest that the bank's service was either poor or deficient to that of its competitors.
- C The passage implies that the bank's service avoided a *damaging reputation*.
- D The bank would have been *on a par with its competitors*, not superior to them.
- E The bank would have been *on a par with its competitors*, not inferior to them.

**The correct answer is A.**

RC11238-04

86. The passage suggests that bank managers failed to consider whether or not the service improvement mentioned in lines 18–20
- (A) was too complicated to be easily described to prospective customers
  - (B) made a measurable change in the experiences of customers in the bank's offices
  - (C) could be sustained if the number of customers increased significantly
  - (D) was an innovation that competing banks could have imitated
  - (E) was adequate to bring the bank's general level of service to a level that was comparable with that of its competitors

### Inference

The question's use of the word *suggests* means that the answer depends on making an inference. To answer this question, look at the entire second paragraph. Managers failed to think ahead. Would the service improvement attract new customers because other banks would find it difficult to copy? Or would the service

improvement be easily imitated by competitors? The managers should have investigated this area before investing in improved service.

- A The passage states the improvement *could easily be described to customers* (lines 28–29).
- B No evidence in the passage shows that the managers failed to think about their customers' experience in the bank.
- C The passage does not imply that managers failed to consider an increase in clients.
- D **Correct.** The managers did not wonder if other banks would copy their service improvement.
- E Lines 8–12 imply that the bank enjoyed a comparable level of service before investing in service improvement.

**The correct answer is D.**

RC11238-05

87. The discussion of the regional bank in the second paragraph serves which of the following functions within the passage as a whole?
- (A) It describes an exceptional case in which investment in service actually failed to produce a competitive advantage.
  - (B) It illustrates the pitfalls of choosing to invest in service at a time when investment is needed more urgently in another area.
  - (C) It demonstrates the kind of analysis that managers apply when they choose one kind of service investment over another.
  - (D) It supports the argument that investments in certain aspects of service are more advantageous than investments in other aspects of service.
  - (E) It provides an example of the point about investment in service made in the first paragraph.

### Logical structure

This question requires thinking about what the second paragraph contributes to the whole passage. The first paragraph makes a generalization about investing in improvements in service; in certain conditions, such improvements do not result in the *competitive*

*advantage* a company hopes for. The second paragraph offers the bank as an example of this generalization.

- A The first sentence of the passage explains that improving service does not necessarily bring a *competitive advantage*, so the bank is not exceptional.
- B The bank illustrates the pitfall of not evaluating a service improvement on the basis of tangible benefits; other areas of the bank are not mentioned.
- C The passage does not discuss how managers analyze and choose different service investments.
- D Investments in different aspects of service are not evaluated in the passage.
- E **Correct.** The bank is an example of the position stated in the first paragraph that investing in improved service can be a waste if the investment is not evaluated carefully.

**The correct answer is E.**

RC11238-06

88. The author uses the word “only” in line 27 most likely in order to
- (A) highlight the oddity of the service improvement
  - (B) emphasize the relatively low value of the investment in service improvement
  - (C) distinguish the primary attribute of the service improvement from secondary attributes
  - (D) single out a certain merit of the service improvement from other merits
  - (E) point out the limited duration of the actual service improvement

### Logical structure

The question asks you to consider the logic of the author’s word choice. The previous two sentences discuss why the service improvement was a wasted investment. In contrast, the final sentence turns to the sole advantage of the service improvement, which is trivial by comparison. The author uses *only* to modify *merit* in order to emphasize the minimal nature of this advantage.

- A The passage does not indicate that the service improvement is somehow strange or peculiar.
- B **Correct.** *Only* emphasizes the low value attached to the single benefit.
- C No attributes of the service improvement are mentioned.
- D *Only* signifies that there was one sole merit of the service improvement.
- E The duration of the benefit is not discussed in the passage.

**The correct answer is B.**

**Questions 89–91 refer to the passage on page 51.**

RC00548-03

89. The “apparent contradiction” mentioned in line 29 refers to the discrepancy between the
- (A) legal status of Mexican women in territorial California and their status in the United States
  - (B) unflattering depiction of Mexicans in novels and the actual public sentiment about the Mexican-American War
  - (C) existence of many marriages between Californianas and non-Hispanic merchants and the strictures against them expressed in novels
  - (D) literary depiction of elite Californianas and the literary depiction of other Mexican individuals
  - (E) novelistic portrayals of elite Californianas’ privileged lives and the actual circumstances of those lives

### Supporting idea

The *apparent contradiction* in line 29 refers to the difference, noted in the previous sentence, between favorable literary portrayals of elite Californianas—that is, Mexican women of the California territory—on the one hand and novels’ generally unflattering depictions of Mexicans on the other.

- A The passage discusses the difference between the legal rights of Mexican women in the California territory and those of non-Hispanic women. The legal rights of Mexican women outside territorial California are not mentioned.
- B The passage suggests that there is no contradiction between unflattering depictions of Mexicans in novels and public sentiment about the Mexican-American War; such depictions of Mexicans served to stir up sentiment in support of the war.
- C According to the passage, novels expressed no strictures against marriages between Californianas and non-Hispanic merchants. Instead, the novels portrayed such marriages favorably.
- D **Correct.** Non-Hispanic novelists glorified elite Californianas based on the importance of forging economic alliances with them, whereas novelists depicted other Mexicans in unflattering terms.
- E The passage indicates that elite Californianas' lives were in fact privileged, at least in comparison to those of non-Hispanic women. It does not suggest that there was any contradiction between elite Californianas' lives and how those lives were portrayed in novels.

**The correct answer is D.**

RC00548-04

90. Which of the following could best serve as an example of the kind of fictional plot discussed by Antonia Castañeda?
- (A) A land speculator of English ancestry weds the daughter of a Mexican vineyard owner after the speculator has migrated to California to seek his fortune.
- (B) A Californian woman of Hispanic ancestry finds that her agricultural livelihood is threatened when her husband is forced to seek work in a textile mill.
- (C) A Mexican rancher who loses his land as a result of the Mexican-American War migrates to the northern United States and marries an immigrant schoolteacher.
- (D) A wealthy Californiana whose father has bequeathed her all his property contends with avaricious relatives for her inheritance.

- (E) A poor married couple emigrate from French Canada and gradually become wealthy as merchants in territorial California.

### Application

According to the passage, Castañeda focuses on a particular plot in which an elite Californiana is pursued by a non-Hispanic merchant or trader for the purpose of gaining economic advantage.

- A **Correct.** The story of a non-Hispanic land speculator wedding a Californiana who is likely, based on the inheritance rights granted her by the Hispanic law in territorial California, to inherit her father's vineyard would precisely fit the plot that Castañeda discusses.
- B This description fails to identify the ethnicity of the Californiana's husband and the reason he married her, so there is no way to determine whether the story would fit Castañeda's plot.
- C Castañeda's plot involves a non-Hispanic male protagonist, so a Mexican rancher could not play the main male role in such a story.
- D The presence of a wealthy Californiana who inherits property might make this story seem to be an example of the fictional plot that Castañeda discusses, but there is no mention of a non-Hispanic merchant or trader who seeks her hand in marriage.
- E Simply taking place in territorial California would not make a story an appropriate example of the plot discussed by Castañeda.

**The correct answer is A.**

RC00548-05

91. Which of the following, if true, would provide the most support for Castañeda's explanation of the "stereotypical plot" mentioned in the lines 18–19?
- (A) Non-Hispanic traders found business more profitable in California while it was a territory than when it became a state.
- (B) Very few marriages between Hispanic women and non-Hispanic men in nineteenth-century territorial California have actually been documented.

- (c) Records from the nineteenth century indicate that some large and valuable properties were owned by elite Californianas in their own right.
- (D) Unmarried non-Hispanic women in the nineteenth-century United States were sometimes able to control property in their own right.
- (E) Most of the property in nineteenth-century territorial California was controlled by Hispanic men.

### Evaluation

Castañeda explains the *stereotypical plot* of a non-Hispanic merchant seeking to marry an elite Californiana based on economics: these women had property and inheritance rights equal to men. Novelists based their plots on the women's *real-life* economic power, which resulted in men's wishing to build economic alliances with them. Supporting this explanation requires supporting these economic ideas in some way.

- A The profitability of non-Hispanic traders' business is not an issue in Castañeda's explanation; thus the change described has no significant relevance to that explanation.
- B The lack of the type of documentation described, rather than providing support for Castañeda's explanation, signifies a deficit in documentary support for that explanation.
- C Correct.** If elite Californianas did in fact own valuable properties, Castañeda's economic explanation gains force. The women did have the real economic significance upon which Castañeda suggests the novelists drew.
- D If it were true that some non-Hispanic women controlled property in this way, Castañeda's explanation of Californianas' uniqueness would be somewhat undermined.
- E If most of the property in nineteenth-century territorial California was controlled by Hispanic men, that suggests that Californianas were less likely to possess the kind of economic power described in Castañeda's argument.

The correct answer is C.

Questions 92–94 refer to the passage on page 53.

RC00533-03

92. The passage suggests that, in the early 1990s, Michaels would have been most likely to agree with which of the following statements about the disparity mentioned in the lines 3–4?

- (A) This disparity is relatively less extreme in the Northern Hemisphere because of sulfate cooling.
- (B) This disparity is only a short-term phenomenon brought about by sulfate cooling.
- (C) This disparity is most significant in those parts of the world dominated by oceans.
- (D) The extent of this disparity is being masked by the temporary effect of sulfate cooling.
- (E) The disparity confirms that current models of global warming are correct.

### Inference

The disparity highlighted in this question is between global warming models and actual climate data—that is, that the models predicted warming that has not occurred. In the early 1990s, according to the passage, Michaels tried to explain this disparity by saying that industrial sulfate emissions had a cooling effect that slowed global warming briefly.

- A The passage does not indicate that Michaels came to distinguish between the Northern and Southern Hemispheres until he began to doubt his early 1990s explanation for the mentioned disparity.
- B Correct.** Michaels claimed in the early 1990s that the disparity was temporary, and that it occurred due to the cooling effect of sulfate emissions.
- C Santer's contention, not Michaels's, is based on the effect of oceans on global warming.
- D In the early 1990s, Michaels used the idea of sulfate cooling to explain the observed disparity, not to suggest that the disparity itself was larger than observed.
- E In seeking to explain the disparity, Michaels seems to have assumed, in the early 1990s at least, that the models of global warming were correct. But he did not take the disparity as evidence of their correctness.

The correct answer is B.

RC00533-04

93. According to the passage, Santer asserts which of the following about global warming?
- It will become a more serious problem in the Southern Hemisphere than in the Northern Hemisphere in spite of the cooling influence of oceans in the south.
  - It is unlikely to be a serious problem in the future because of the pervasive effect of sulfate cooling.
  - It will proceed at the same general rate in the Northern and Southern Hemispheres once the temporary influence of sulfate cooling comes to an end.
  - Until the late 1980s, it was moderated in the Northern Hemisphere by the effect of sulfate cooling.
  - Largely because of the cooling influence of oceans, it has had no discernible impact on the Southern Hemisphere.

### Supporting idea

The second paragraph of the passage discusses Santer's take on global warming. He is concerned with the effect of oceans and of sulfate cooling on this process, and he argues that the rate of warming in the Southern and Northern Hemispheres has been differently affected by each of these. In general, oceans slow warming in the south, while sulfate cooling temporarily slowed warming in the north until the late 1980s.

- According to the passage, Santer has argued that since 1987 the Northern Hemisphere has warmed more significantly than the Southern Hemisphere.
- Santer maintains that sulfate cooling complicates our attempts to understand global warming. He notes, however, that sulfate cooling peaked in the Northern Hemisphere in the mid-1900s, and that that hemisphere's warming has increased considerably. So sulfate cooling's effect is not pervasive and has not mitigated the medium- and long-term problem of global warming.
- Santer argues that, in the absence of sulfate cooling, global warming would occur more slowly in the Southern Hemisphere due to the greater ocean coverage there.

- D** **Correct.** Santer says that sulfate cooling slowed warming in the Northern Hemisphere, but that in 1987, the influence of sulfate cooling was no longer significant.
- E** Santer maintains that global warming happens more slowly in the Southern Hemisphere due to the greater ocean coverage there, not that it has no discernible impact there.

**The correct answer is D.**

RC00533-05

94. The passage suggests that Santer and Michaels would be most likely to DISAGREE over which of the following issues?
- Whether climatological data invalidates global warming models
  - Whether warming in the Northern Hemisphere has intensified since 1987
  - Whether disparities between global warming models and climatological data can be detected
  - Whether landmasses warm more rapidly than oceans
  - Whether oceans have a significant effect on global climate patterns

### Inference

According to the end of the first paragraph, Michaels began to doubt that sulfate cooling had an effect on global warming, and, further, based on the fact that he could not find an answer for why climatological data did not line up with global warming models, he questioned the accuracy of those models. The second paragraph explains that Santer, in contrast, offered a more nuanced explanation for the effect of sulfate cooling, and that based on this explanation, he disputed the claim that climatological data were inconsistent with the models' predictions.

- A** **Correct.** Based on the passage, Santer and Michaels would clearly disagree about whether climatological data invalidate global warming models: Michaels came to question the models on the basis of those data, while Santer found the model predictions were in fact ultimately consistent with the observed data.

- B Both Santer and Michaels accept the idea that warming in the north has accelerated since 1987.
- C Santer and Michaels both offered reasons for why the seeming disparity between models and data occurred—thus they agreed that such disparities were in fact detected.
- D According to the second paragraph, Santer holds that landmasses warm more rapidly than oceans. But the passage offers no indication that Michaels disagrees with this.
- E Santer's argument is based in large part on the effect of oceans on global climate patterns, but nothing in the passage's discussion of Michaels's work indicates that Michaels would disagree that oceans have such an effect.

**The correct answer is A.**

**Questions 95-101 refer to the passage on page 55.**

RC00613-01

95. According to the passage, Walker and Szalay disagree on which of the following points?
- (A) The structure and composition of australopithecine teeth
- (B) The kinds of conclusions that can be drawn from the micro-wear patterns on australopithecine teeth
- (C) The idea that fruit was a part of the australopithecine diet
- (D) The extent to which seed cracking and bone crunching produce similar micro-wear patterns on teeth
- (E) The function of the heavy enamel on australopithecine teeth

### Supporting idea

This question refers to the first paragraph, which states that Walker does not agree with Szalay's idea that *the heavy enamel of australopithecine teeth is an adaptation to bone crunching*.

- A According to the passage, Walker and Szalay disagree about the function of heavy enamel on the teeth, not the structure and composition of the teeth.

- B The passage does not indicate that Szalay has anything to say about the micro-wear patterns on the teeth.
- C Walker does, according to the passage, believe that australopithecines ate fruit, but it gives no evidence about whether Szalay believes that they ate at least some fruit.
- D According to the passage, Walker believes that seed cracking and bone crunching produce distinctive micro-wear patterns on teeth, but he does not necessarily believe that they are similar. The passage does not indicate Szalay's position on the difference between micro-wear patterns.
- E **Correct.** The function of the heavy enamel on the teeth is the only idea about which the passage clearly indicates that Walker and Szalay disagree.

**The correct answer is E.**

RC00613-02

96. The passage suggests that Walker's research indicated which of the following about australopithecine teeth?
- (A) They had micro-wear characteristics indicating that fruit constituted only a small part of their diet.
- (B) They lacked micro-wear characteristics associated with seed eating and bone crunching.
- (C) They had micro-wear characteristics that differed in certain ways from the micro-wear patterns of chimpanzees and orangutans.
- (D) They had micro-wear characteristics suggesting that the diet of australopithecines varied from one region to another.
- (E) They lacked the micro-wear characteristics distinctive of modern frugivores.

### Inference

According to the passage, Walker's research focuses on micro-wear patterns on the teeth of australopithecines. He draws several conclusions on the basis of these patterns: first, that australopithecines did not eat hard seeds; next, that they did not crunch bones; and finally, that they ate fruit.

- A The passage indicates that Walker's observation of micro-wear patterns led

him to conclude that australopithecines ate mostly fruit, not that *fruit constituted only a small part of their diet*.

- B **Correct.** The first paragraph explains that Walker concluded from micro-wear patterns that australopithecines did not eat hard seeds and did not crunch bones; thus, his research must have indicated that they lacked micro-wear characteristics associated with such activities.
- C According to the passage, the opposite is true: based on the observation that their micro-wear patterns were indistinguishable from those of chimpanzees and orangutans, Walker concluded that australopithecines ate fruit.
- D The second paragraph of the passage complicates Walker's view by suggesting that australopithecines' diet might have varied from one region to another, but the passage says nothing about Walker's research from which to infer that it indicated such variation.
- E Chimpanzees and orangutans are assumed to be frugivores, according to the passage, and Walker's research indicated that australopithecine teeth had micro-wear characteristics identical to theirs.

**The correct answer is B.**

RC00613-03

97. The passage suggests that which of the following would be true of studies of tooth micro-wear patterns conducted on modern baboons?
- (A) They would inaccurately suggest that some baboons eat more soft-bodied than hard-bodied insects.
  - (B) They would suggest that insects constitute the largest part of some baboons' diets.
  - (C) They would reveal that there are no significant differences in tooth micro-wear patterns among baboon populations.
  - (D) They would inadequately reflect the extent to which some baboons consume certain types of insects.
  - (E) They would indicate that baboons in certain regions eat only soft-bodied insects, whereas baboons in other regions eat hard-bodied insects.

## Inference

The second paragraph states that modern baboons eat *only soft-bodied insects* and so would not exhibit tooth abrasion to indicate that they were insectivores. Thus, it would be difficult to determine exactly which soft-bodied insects they ate.

- A The passage states that baboons eat only soft-bodied insects—so it is in fact accurate to suggest that all baboons eat more soft-bodied than hard-bodied insects.
- B The passage says that baboons eat only soft-bodied insects. It also suggests that soft-bodied insects do not leave significant enough abrasions on baboons' teeth to provide evidence of this aspect of their diet. Therefore, the tooth-wear patterns would give little or no information regarding what proportion of the baboons' overall diet consists of insects.
- C The passage does not provide grounds for inferring anything about the differences, or lack thereof, among baboon populations in terms of tooth micro-wear patterns.
- D **Correct.** Because soft-bodied insects cause little tooth abrasion, micro-wear patterns would most likely not reflect the extent to which baboons consume soft-bodied insects.
- E The passage states that baboons eat *only soft-bodied insects*. Nothing in the passage suggests that baboons in certain regions eat hard-bodied insects.

**The correct answer is D.**

RC00613-04

98. The passage suggests which of the following about the micro-wear patterns found on the teeth of omnivorous primates?
- (A) The patterns provide information about what kinds of foods are not eaten by the particular species of primate, but not about the foods actually eaten.
  - (B) The patterns of various primate species living in the same environment resemble one another.
  - (C) The patterns may not provide information about the extent to which a particular species' diet includes seeds.

- (D) The patterns provide more information about these primates' diet than do the tooth micro-wear patterns of primates who are frugivores.
- (E) The patterns may differ among groups within a species depending on the environment within which a particular group lives.

### Inference

This question focuses mainly on the end of the second paragraph, which states that *the diets of current omnivorous primates vary considerably depending on the environments* in which they live. It goes on to conclude that australopithecines, if they were omnivores, would similarly consume varied diets, depending on environment, and exhibit varied tooth micro-wear patterns as well. Thus, it is reasonable to conclude that any omnivorous primates living in different environments and consuming different diets would exhibit varied micro-wear patterns.

- A The passage indicates that the absence of certain types of micro-wear patterns can provide evidence about what foods a species does not eat. It also says that among omnivorous primates, one might expect to find considerable population variation in their tooth micro-wear patterns. Wherever micro-wear patterns are present, they provide evidence about what kinds of foods are eaten.
- B The passage suggests that various primate species living in the same environment might consume a variety of different diets, so there is no reason to conclude that their micro-wear patterns would resemble one another.
- C The passage indicates that seed-eating produces distinctive micro-wear patterns, so the patterns, or lack thereof, on the teeth of any species would most likely provide information about the extent to which the species' diet includes seeds.
- D The end of the first paragraph suggests that frugivores' micro-wear patterns are distinctive; the passage provides no reason to believe that omnivores' diets provide more information.

**E Correct.** According to the passage, omnivorous primates of a particular species may consume different diets depending on where they live. Thus, their micro-wear patterns may differ on this basis.

The correct answer is E.

RC00613:05

99. It can be inferred from the passage that if studies of tooth micro-wear patterns were conducted on modern baboons, which of the following would most likely be true of the results obtained?
- (A) There would be enough abrasion to allow a determination of whether baboons are frugivorous or insectivorous.
  - (B) The results would suggest that insects constitute the largest part of the baboons' diet.
  - (C) The results would reveal that there are no significant differences in tooth micro-wear patterns from one regional baboon population to another.
  - (D) The results would provide an accurate indication of the absence of some kinds of insects from the baboons' diet.
  - (E) The results would be unlikely to provide any indication of what inferences about the australopithecine diet can or cannot be drawn from micro-wear studies.

### Inference

The second paragraph states that modern baboons eat soft-bodied insects but not hard-bodied ones—and it is hard-bodied insects, the passage suggests, that would cause particular micro-wear patterns on teeth. So the patterns on modern baboons' teeth most likely do not exhibit the patterns indicating hard-bodied insect consumption.

- A The passage states that baboons' consumption of soft-bodied insects would not show up in the patterns on their teeth—so the abrasion would most likely not provide enough information for a determination of whether baboons are frugivorous or insectivorous.
- B Since soft-bodied insects do not abrade the teeth significantly, it would be difficult to

determine, based on micro-wear patterns, the part such insects play in the baboons' diet. Furthermore, the passage does not suggest that micro-wear patterns can indicate the quantity of food an animal might have eaten.

- C There could be differences in tooth micro-wear patterns from one regional baboon population to another if they consumed anything in addition to soft-bodied insects.
- D **Correct.** Studying tooth micro-wear patterns on baboons' teeth would most likely show that their teeth do not exhibit patterns typical of creatures that consume hard-bodied insects.
- E The passage suggests that based on results from micro-wear patterns on modern baboons' teeth, one cannot infer from micro-wear studies whether australopithecines ate soft-bodied insects.

**The correct answer is D.**

RC00613-08

100. It can be inferred from the passage that Walker's conclusion about the australopithecine diet would be called into question under which of the following circumstances?
- (A) The tooth enamel of australopithecines is found to be much heavier than that of modern frugivorous primates.
  - (B) The micro-wear patterns of australopithecine teeth from regions other than east Africa are analyzed.
  - (C) Orangutans are found to have a much broader diet than is currently recognized.
  - (D) The environment of east Africa at the time australopithecines lived there is found to have been far more varied than is currently thought.
  - (E) The area in which the australopithecine specimens were found is discovered to have been very rich in soft-bodied insects during the period when australopithecines lived there.

## Inference

The passage explains that Walker bases his conclusion about the frugivorous nature of the

australopithecine diet on the fact that the micro-wear patterns on australopithecine teeth are indistinguishable from those of chimpanzees and orangutans, both of which are presumed to have frugivorous diets.

- A The passage indicates that Walker took into account the fact that australopithecines had relatively heavy tooth enamel and that he rejected the view that this heaviness was evidence against the hypothesis that they were frugivorous. For all we can tell from the information in the passage, the australopithecines' tooth enamel was already known to be much heavier than that of modern frugivorous primates.
- B It could be the case that analyzing the micro-wear patterns of australopithecine teeth from other regions would yield the same data as those from east Africa.
- C **Correct.** According to the passage, Walker bases the conclusion that australopithecines were frugivorous on the similarity between their micro-wear patterns and those of modern chimpanzees and orangutans. If orangutans were found to have a diet that included a greater range of non-fruit foods than is currently recognized, then the correspondence between their micro-wear patterns and australopithecines' micro-wear patterns would be consistent with the hypothesis that australopithecines' diet was broader as well.
- D Even if the environment of east Africa were more varied, that would not mean the australopithecines necessarily ate a more varied diet. Many species that live in very varied environments specialize narrowly on particular foods in those environments.
- E Just because many soft-bodied insects might have been available to australopithecines does not mean that australopithecines ate them.

**The correct answer is C.**

RC00613-10

101. The author of the passage mentions the diets of baboons and other living primates most likely in order to
- provide evidence that refutes Walker's conclusions about the foods making up the diets of australopithecines
  - suggest that studies of tooth micro-wear patterns are primarily useful for determining the diets of living primates
  - suggest that australopithecines were probably omnivores rather than frugivores
  - illustrate some of the limitations of using tooth micro-wear patterns to draw definitive conclusions about a group's diet
  - suggest that tooth micro-wear patterns are caused by persistent, as opposed to occasional, consumption of particular foods

## Evaluation

The passage discusses the diets of baboons and other living primates mainly in the second paragraph, which is concerned with explaining the limited utility of micro-wear studies.

- The author raises some doubts about Walker's conclusions but does not go as far as to try to refute them outright. The author argues only that, as the final sentence of the passage states, they may need to be expanded.
- The author discusses the diets of baboons and other living primates in relation to micro-wear research on extinct primates. Nothing in the discussion suggests that micro-wear studies would be more useful for determining the diets of living primates than for providing evidence regarding the diets of earlier primates or of other types of animals. Furthermore, the mention of baboon diets suggests that micro-wear studies may not be very useful for determining the diets of some living primates.
- The author leaves open the question of whether australopithecines were omnivores or frugivores. The passage suggests that some australopithecines might have been omnivores, if australopithecines' diets

varied according to the environments they inhabited. Walker's conclusion regarding east African australopithecines' being frugivores might still hold, however.

- Correct.** The author refers to baboons' diets and those of current omnivorous primates in order to suggest that there might be limitations to Walker's use of tooth micro-wear patterns to determine australopithecines' diet.
- The passage does not make a distinction between persistent and occasional consumption of particular foods.

**The correct answer is D.**

Questions 102–105 refer to the passage on page 58.

RC00512-01

102. The primary purpose of the passage is to
- present recently discovered evidence that supports a conventional interpretation of a historical period
  - describe how reinterpretations of available evidence have reinvigorated a once-discredited scholarly position
  - explain why some historians have tended to emphasize change rather than continuity in discussing a particular period
  - explore how changes in a particular occupation serve to counter the prevailing view of a historical period
  - examine a particular area of historical research in order to exemplify a general scholarly trend

## Main idea

This question asks about the passage's main purpose. The first paragraph initially describes a way in which historiography is changing: the idea of a consistent, monolithic decline in women's status is being complicated by *recent research*. The rest of the passage uses the example of Pinchbeck's interpretation of women's work in English cheesemaking to show the limits of earlier ideas about women's status: Pinchbeck's work illustrates the idea of consistent decline, but recent scholarship has called that work into question.

- A The first paragraph suggests that Pinchbeck's work represents the conventional position that women's status declined consistently with the advent of capitalism; according to the passage, recent evidence undermines, rather than supports, that position.
- B According to the passage, reinterpretations of evidence have inspired new interpretations; they have not reinvigorated a discredited position.
- C The passage is concerned with noting both change and continuity, as stated in the first sentence.
- D In the passage, continuity, not change, in a particular occupation—English farmhouse cheesemaking—helps to counter the prevailing view.
- E **Correct.** The passage's main purpose is to examine women's work in English farmhouse cheesemaking so as to illustrate a trend in historiography of women's status under capitalism and industrialization.

**The correct answer is E.**

RC00512-03

103. Regarding English local markets and fairs, which of the following can be inferred from the passage?
- (A) Both before and after the agricultural revolution, the sellers of agricultural products at these venues were men.
  - (B) Knowing who the active sellers were at these venues may not give a reliable indication of who controlled the revenue from the sales.
  - (C) There were no parallel institutions at which American cheese makers could sell their own products.
  - (D) Prior to the agricultural revolution, the sellers of agricultural products at these venues were generally the producers themselves.
  - (E) Prior to the agricultural revolution, women sold not only cheese but also products of arable agriculture at these venues.

### Inference

The passage discusses English local markets and fairs in the first and second paragraphs: the first paragraph states that before the agricultural

revolution, women had sold cheese in such venues but that after that, factors, who were men, sold the cheese. The second paragraph argues that even though English women in precapitalist, preindustrial times may have at one point sold cheese at fairs, evidence indicates that in at least one case, a man appropriated most of the money his wife made from her sales.

- A The first paragraph states that prior to the agricultural revolution, women sold cheese at local markets and fairs.
- B **Correct.** As the second paragraph indicates, women may have sold the cheese, but there is evidence to suggest that they did not necessarily control the revenue from its sale.
- C The passage does not provide evidence regarding any institutions at which American cheese makers sold their products.
- D While the passage indicates that the producers of English farmhouse cheese may have been the ones who sold that cheese at local markets and fairs, there is no evidence to suggest that this was necessarily the case for other agricultural products.
- E The passage provides no information regarding whether women sold products of arable agriculture in any venue.

**The correct answer is B.**

RC00512-05

104. The passage describes the work of Pinchbeck primarily in order to
- (A) demonstrate that some of the conclusions reached by recent historians were anticipated in earlier scholarship
  - (B) provide an instance of the viewpoint that, according to the passage's author, is being superseded
  - (C) illustrate the ways in which recent historians have built on the work of their predecessors
  - (D) provide a point of reference for subsequent scholarship on women's work during the agricultural revolution
  - (E) show the effect that the specialization introduced in the agricultural and industrial revolutions had on women's work

## Evaluation

This question focuses on the function of Pinchbeck's work in the passage. Pinchbeck's study of women's work in cheese production is, according to the passage, an illustration of the view that women's status declined consistently with the advent of industrialization. That view, the author claims, is being challenged by current historiography.

- A The passage indicates that the conclusions of Pinchbeck, who represents earlier scholarship, did not anticipate recent work, but rather that recent work argues against those conclusions.
- B **Correct.** Pinchbeck's work illustrates earlier trends in historiography, trends that the author suggests are now giving way to newer ideas.
- C The passage does not focus on any ways in which recent historians have built on Pinchbeck's work; instead, it discusses how they have argued against its conclusions.
- D Pinchbeck's work provides a point of reference only insofar as subsequent scholarship is arguing against it.
- E Pinchbeck makes the argument that specialization caused women's status to decline, but the passage is concerned with undermining this argument.

**The correct answer is B.**

RC00512-07

105. It can be inferred from the passage that women did work in
- (A) American cheesemaking at some point prior to industrialization
  - (B) arable agriculture in northern England both before and after the agricultural revolution
  - (C) arable agriculture in southeast England after the agricultural revolution, in those locales in which cultural values supported their participation

- (D) the sale of cheese at local markets in England even after the agricultural revolution
- (E) some areas of American cheese dairying after industrialization

## Inference

This question focuses mainly on the final paragraph of the passage, in which women's continued work in English cheese dairying is contrasted with what the passage calls their *disappearance from arable agriculture in southeast England and from American cheese dairying*, presumably during the period of industrialization. The correct answer will be a conclusion that can be drawn from this information.

- A **Correct.** That women "disappeared" from American cheese dairying during industrialization provides grounds for inferring that they did such dairy work at some point prior to industrialization.
- B The passage says that women disappeared from arable agriculture in southeast England, but it gives no information about their participation in arable agriculture in northern England.
- C The passage makes a blanket statement about women's *disappearance from arable agriculture in southeast England*, so there is no reason to infer that any locales supported women's participation in agriculture.
- D The first paragraph states that factors, who were men, sold cheese after the agricultural revolution.
- E The final paragraph explicitly states that women disappeared from American cheese dairying; thus, there is no basis for inferring that women worked in any areas of that field after industrialization.

**The correct answer is A.**

10. A local government has decided to ban all sales of plastic bags at grocery stores. The city council has proposed a bill that would require all grocery stores to charge 10 cents for each plastic bag used by a customer. The city council claims that this will reduce the amount of plastic waste in the city. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
11. A scientist is studying the effects of a new drug on a group of patients. She wants to know if the drug is effective in reducing the symptoms of a particular disease. She decides to conduct a controlled experiment where one group of patients receives the drug and another group receives a placebo. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
12. A teacher is trying to decide what grade level a student is at. She looks at the student's work in different subjects and makes a general statement about the student's overall academic performance. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
13. A scientist is studying the effects of a new drug on a group of patients. She wants to know if the drug is effective in reducing the symptoms of a particular disease. She decides to conduct a controlled experiment where one group of patients receives the drug and another group receives a placebo. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
14. A teacher is trying to decide what grade level a student is at. She looks at the student's work in different subjects and makes a general statement about the student's overall academic performance. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning

## 4.0 Critical Reasoning

15. A scientist is studying the effects of a new drug on a group of patients. She wants to know if the drug is effective in reducing the symptoms of a particular disease. She decides to conduct a controlled experiment where one group of patients receives the drug and another group receives a placebo. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
16. A teacher is trying to decide what grade level a student is at. She looks at the student's work in different subjects and makes a general statement about the student's overall academic performance. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
17. A scientist is studying the effects of a new drug on a group of patients. She wants to know if the drug is effective in reducing the symptoms of a particular disease. She decides to conduct a controlled experiment where one group of patients receives the drug and another group receives a placebo. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning
18. A teacher is trying to decide what grade level a student is at. She looks at the student's work in different subjects and makes a general statement about the student's overall academic performance. This is an example of which type of reasoning?
- A) deductive reasoning  
B) inductive reasoning  
C) analogical reasoning  
D) causal reasoning  
E) comparative reasoning

## 4.0 Critical Reasoning

Critical reasoning questions appear in the Verbal section of the GMAT® exam. The Verbal section uses multiple-choice questions to measure your ability to read and comprehend written material, to reason and to evaluate arguments, and to correct written material to conform to standard written English. Because the Verbal section includes content from a variety of topics, you may be generally familiar with some of the material; however, neither the passages nor the questions assume knowledge of the topics discussed. Critical reasoning questions are intermingled with reading comprehension and sentence correction questions throughout the Verbal section of the test.

You will have 65 minutes to complete the Verbal section, or about 1½ minutes to answer each question. Although critical reasoning questions are based on written passages, these passages are shorter than reading comprehension passages. They tend to be less than 100 words in length and generally are followed by one or two questions. For these questions, you will see a split computer screen. The written passage will remain visible at the top of the screen. In turn, each associated question will appear below the relevant passage.

Critical reasoning questions are designed to test the reasoning skills involved in (1) making arguments, (2) evaluating arguments, and (3) formulating or evaluating a plan of action. The materials on which questions are based are drawn from a variety of sources. The GMAT exam does not expect any familiarity with the subject matter of those materials.

In these questions, you are to analyze the situation on which each question is based, and then select the answer choice that most appropriately answers the question. Begin by reading the passages carefully, then reading the five answer choices. If the correct answer is not immediately obvious to you, see whether you can eliminate some of the wrong answers. Reading the passage a second time may be helpful in illuminating subtleties that were not immediately evident.

Answering critical reasoning questions requires no specialized knowledge of any particular field; you don't have to have knowledge of the terminology and conventions of formal logic. The sample critical reasoning questions in this chapter illustrate the variety of topics the test may cover, the kinds of questions it may ask, and the level of analysis it requires.

The following pages describe what critical reasoning questions are designed to measure and present the directions that will precede questions of this type. Sample questions and explanations of the correct answers follow.

## 4.1 What Is Measured

Critical reasoning questions are designed to provide one measure of your ability to reason effectively in the following areas:

- **Argument construction**

Questions in this category may ask you to recognize such things as the basic structure of an argument, properly drawn conclusions, underlying assumptions, well-supported explanatory hypotheses, and parallels between structurally similar arguments.

- **Argument evaluation**

These questions may ask you to analyze a given argument and to recognize such things as factors that would strengthen or weaken the given argument; reasoning errors committed in making that argument; and aspects of the method by which the argument proceeds.

- **Formulating and evaluating a plan of action**

This type of question may ask you to recognize such things as the relative appropriateness, effectiveness, or efficiency of different plans of action, factors that would strengthen or weaken the prospects of success of a proposed plan of action, and assumptions underlying a proposed plan of action.

## 4.2 Test-Taking Strategies

1. **Read very carefully the set of statements on which a question is based.**

Pay close attention to

- what is put forward as factual information
- what is not said but necessarily follows from what is said
- what is claimed to follow from facts that have been put forward
- how well substantiated are any claims that a particular conclusion follows from the facts that have been put forward

In reading the arguments, it is important to pay attention to the logical reasoning used; the actual truth of statements portrayed as fact is not important.

2. **Identify the conclusion.**

The conclusion does not necessarily come at the end of the text; it may come somewhere in the middle or even at the beginning. Be alert to clues in the text that an argument follows logically from another statement or statements in the text.

3. **Determine exactly what each question asks.**

You might find it helpful to read the question first, before reading the material on which it is based; don't assume that you know what you will be asked about an argument. An argument may have obvious flaws, and one question may ask you to detect them. Other questions may direct you to select the one answer choice that does NOT describe a flaw in the argument.

4. **Read all the answer choices carefully.**

Do not assume that a given answer is the best without first reading all the choices.

## 4.3 The Directions

These are the directions you will see for critical reasoning questions when you take the GMAT exam. If you read them carefully and understand them clearly before going to sit for the test, you will not need to spend too much time reviewing them when you are at the test center and the test is under way.

For these questions, select the best of the answer choices given.

## 4.4 Sample Questions

Each of the critical reasoning questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer of the choices given.

\*CR14249

106. PhishCo runs a number of farms in the arid province of Nufa, depending largely on irrigation. Now, as part of a plan to efficiently increase the farms' total production, it plans to drill down to an aquifer containing warm, slightly salty water that will be used to raise fish in ponds. The water from the ponds will later be used to supplement piped-in irrigation water for PhishCo's vegetable fields, and the ponds and accompanying vegetation should help reduce the heat in the area of the farms.

Which of the following would, if true, most strongly suggest that the plan, if implemented, would increase the overall efficiency of PhishCo's farms?

- (A) Most of the vegetation to be placed around the ponds is native to Nufa.
- (B) Fish raised on PhishCo's farms are likely to be saleable in the nearest urban areas.
- (C) Organic waste from fish in the pond water will help to fertilize fields where it is used for irrigation.
- (D) The government of Nufa will help to arrange loan financing to partially cover the costs of drilling.
- (E) Ponds will be located on low-lying land now partially occupied by grain crops.

\*CR07612

107. The sustained massive use of pesticides in farming has two effects that are especially pernicious. First, it often kills off the pests' natural enemies in the area. Second, it often unintentionally gives rise to insecticide-resistant pests, since those insects that survive a particular insecticide will be the ones most resistant to it, and they are the ones left to breed.

From the passage above, it can be properly inferred that the effectiveness of the sustained massive use of pesticides can be extended by doing which of the following, assuming that each is a realistic possibility?

- (A) Using only chemically stable insecticides
- (B) Periodically switching the type of insecticide used
- (C) Gradually increasing the quantities of pesticides used
- (D) Leaving a few fields fallow every year
- (E) Breeding higher-yielding varieties of crop plants

\*These numbers correlate with the online test bank question number. See the GMAT Official Guide Online Index in the back of this book.

CR00701

108. Which of the following, if true, most logically completes the argument below?

Manufacturers are now required to make all cigarette lighters child-resistant by equipping them with safety levers. But this change is unlikely to result in a significant reduction in the number of fires caused by children playing with lighters, because children given the opportunity can figure out how to work the safety levers and \_\_\_\_\_.

- (A) the addition of the safety levers has made lighters more expensive than they were before the requirement was instituted
- (B) adults are more likely to leave child-resistant lighters than non-child-resistant lighters in places that are accessible to children
- (C) many of the fires started by young children are quickly detected and extinguished by their parents
- (D) unlike child-resistant lighters, lighters that are not child-resistant can be operated by children as young as two years old
- (E) approximately 5,000 fires per year have been attributed to children playing with lighters before the safety levers were required

CR04192

109. Which of the following most logically completes the passage?

A business analysis of the Appenian railroad system divided its long-distance passenger routes into two categories: rural routes and interurban routes. The analysis found that, unlike the interurban routes, few rural routes carried a high enough passenger volume to be profitable. Closing unprofitable rural routes, however, will not necessarily enhance the profitability of the whole system, since \_\_\_\_\_.

- (A) a large part of the passenger volume on interurban routes is accounted for by passengers who begin or end their journeys on rural routes
- (B) within the last two decades several of the least used rural routes have been closed and their passenger services have been replaced by buses
- (C) the rural routes were all originally constructed at least one hundred years ago, whereas some of the interurban routes were constructed recently for new high-speed express trains
- (D) not all of Appenia's large cities are equally well served by interurban railroad services
- (E) the greatest passenger volume, relative to the routes' capacity, is not on either category of long-distance routes but is on suburban commuter routes

CR03129

110. Although Ackerburg's subway system is currently operating at a deficit, the transit authority will lower subway fares next year. The authority projects that the lower fares will result in a ten percent increase in the number of subway riders. Since the additional income from the larger ridership will more than offset the decrease due to lower fares, the transit authority actually expects the fare reduction to reduce or eliminate the subway system's operating deficit for next year.

Which of the following, if true, provides the most support for the transit authority's expectation of reducing the subway system's operating deficit?

- (A) Throughout the years that the subway system has operated, fares have never before been reduced.
- (B) The planned fare reduction will not apply to students, who can already ride the subway for a reduced fare.
- (C) Next year, the transit authority will have to undertake several large-scale track maintenance projects.
- (D) The subway system can accommodate a ten percent increase in ridership without increasing the number of trains it runs each day.
- (E) The current subway fares in Ackerburg are higher than subway fares in other cities in the region.

CR00828

111. Patrick usually provides child care for six children. Parents leave their children at Patrick's house in the morning and pick them up after work. At the end of each workweek, the parents pay Patrick at an hourly rate for the child care provided that week. The weekly income Patrick receives is usually adequate but not always uniform, particularly in the winter, when children are likely to get sick and be unpredictably absent.

Which of the following plans, if put into effect, has the best prospect of making Patrick's weekly income both uniform and adequate?

- (A) Pool resources with a neighbor who provides child care under similar arrangements, so that the two of them cooperate in caring for twice as many children as Patrick currently does.
- (B) Replace payment by actual hours of child care provided with a fixed weekly fee based upon the number of hours of child care that Patrick would typically be expected to provide.
- (C) Hire a full-time helper and invest in facilities for providing child care to sick children.
- (D) Increase the hourly rate to a level that would provide adequate income even in a week when half of the children Patrick usually cares for are absent.
- (E) Increase the number of hours made available for child care each day, so that parents can leave their children in Patrick's care for a longer period each day at the current hourly rate.

CR10639

112. Editorial: Consumers in North America think that by drinking frozen concentrated orange juice, they are saving energy, because it takes fewer truckloads to transport it than it takes to transport an equivalent amount of not-from-concentrate juice. But they are mistaken, for the amount of energy required to concentrate the juice is far greater than the energy difference in the juices' transport.

Which of the following, if true, would provide the greatest additional support for the editorial's conclusion?

- (A) Freezer trucks use substantially more energy per mile driven than do any other types of trucks.
- (B) Frozen juice can be stored for several years, while not-from-concentrate juice lasts a much shorter time.
- (C) Oranges grown in Brazil make up an increasing percentage of the fruit used in not-from-concentrate juice production.
- (D) A serving of not-from-concentrate juice takes up to six times more space than a serving of frozen concentrated juice.
- (E) Though frozen concentrated juice must be kept at a lower temperature, not-from-concentrate juice is far more sensitive to small temperature fluctuations.

CR07618

113. A computer equipped with signature-recognition software, which restricts access to a computer to those people whose signatures are on file, identifies a person's signature by analyzing not only the form of the signature but also such characteristics as pen pressure and signing speed. Even the most adept forgers cannot duplicate all of the characteristics the program analyzes. Which of the following can be logically concluded from the passage above?

- (A) The time it takes to record and analyze a signature makes the software impractical for everyday use.
- (B) Computers equipped with the software will soon be installed in most banks.
- (C) Nobody can gain access to a computer equipped with the software solely by virtue of skill at forging signatures.
- (D) Signature-recognition software has taken many years to develop and perfect.
- (E) In many cases even authorized users are denied legitimate access to computers equipped with the software.

CR02958

114. The rate at which a road wears depends on various factors, including climate, amount of traffic, and the size and weight of the vehicles using it. The only land transportation to Rittland's seaport is via a divided highway, one side carrying traffic to the seaport and one carrying traffic away from it. The side leading to the seaport has worn faster, even though each side has carried virtually the same amount of traffic, consisting mainly of large trucks.

Which of the following, if true, most helps to explain the difference in the rate of wear?

- (A) The volume of traffic to and from Rittland's seaport has increased beyond the intended capacity of the highway that serves it.
- (B) Wear on the highway that serves Rittland's seaport is considerably greater during the cold winter months.
- (C) Wear on the side of the highway that leads to Rittland's seaport has encouraged people to take buses to the seaport rather than driving there in their own automobiles.
- (D) A greater tonnage of goods is exported from Rittland's seaport than is imported through it.
- (E) All of Rittland's automobiles are imported by ship.

CR04073

115. In parts of South America, vitamin-A deficiency is a serious health problem, especially among children. In one region, agriculturists are attempting to improve nutrition by encouraging farmers to plant a new variety of sweet potato called SPK004 that is rich in beta-carotene, which the body converts into vitamin A. The plan has good chances of success, since sweet potato is a staple of the region's diet and agriculture, and the varieties currently grown contain little beta-carotene.

Which of the following, if true, most strongly supports the prediction that the plan will succeed?

- (A) The growing conditions required by the varieties of sweet potato currently cultivated in the region are conditions in which SPK004 can flourish.
- (B) The flesh of SPK004 differs from that of the currently cultivated sweet potatoes in color and texture, so traditional foods would look somewhat different when prepared from SPK004.
- (C) There are no other varieties of sweet potato that are significantly richer in beta-carotene than SPK004 is.
- (D) The varieties of sweet potato currently cultivated in the region contain some important nutrients that are lacking in SPK004.
- (E) There are other vegetables currently grown in the region that contain more beta-carotene than the currently cultivated varieties of sweet potato do.

CR06018

116. Which of the following most logically completes the argument?

The last members of a now-extinct species of a European wild deer called the giant deer lived in Ireland about 16,000 years ago. Prehistoric cave paintings in France depict this animal as having a large hump on its back. Fossils of this animal, however, do not show any hump. Nevertheless, there is no reason to conclude that the cave paintings are therefore inaccurate in this regard, since \_\_\_\_\_.

- (A) some prehistoric cave paintings in France also depict other animals as having a hump
- (B) fossils of the giant deer are much more common in Ireland than in France
- (C) animal humps are composed of fatty tissue, which does not fossilize
- (D) the cave paintings of the giant deer were painted well before 16,000 years ago
- (E) only one currently existing species of deer has any anatomical feature that even remotely resembles a hump

CR04738

117. Cocoa grown organically on trees within the shade of the rain forest canopy commands a premium price. However, acquiring and maintaining the certification that allows the crop to be sold as organically grown is very time-consuming and laborious. Meanwhile, the price premium for the grower is about 30 percent, whereas cocoa trees grown in full sun using standard techniques can have twice the yield of organic, shade-grown trees. Financially, therefore, standard techniques are the better choice for the farmer. Which of the following, if true, most seriously weakens the argument?

- (A) Cocoa can be grown only in a climate that has the temperature and moisture characteristics of a tropical rain forest.
- (B) Cocoa trees grown using standard techniques require costly applications of fertilizer and pesticides, unlike shade-grown trees.
- (C) Although organically grown cocoa has long commanded a price premium over cocoa grown using standard techniques, its price has fluctuated considerably during that period.
- (D) Cocoa is not the only cash crop that can be raised on plots that leave the rain forest canopy overhead essentially intact.
- (E) Governments and international conservation organizations are working to streamline organic certification so as to relieve farmers of unnecessary work.

CR07547

118. High levels of fertilizer and pesticides, needed when farmers try to produce high yields of the same crop year after year, pollute water supplies. Experts therefore urge farmers to diversify their crops and to rotate their plantings yearly. To receive governmental price-support benefits for a crop, farmers must have produced that same crop for the past several years. The statements above, if true, best support which of the following conclusions?

- (A) The rules for governmental support of farm prices work against efforts to reduce water pollution.
- (B) The only solution to the problem of water pollution from fertilizers and pesticides is to take farmland out of production.
- (C) Farmers can continue to make a profit by rotating diverse crops, thus reducing costs for chemicals, but not by planting the same crop each year.
- (D) New farming techniques will be developed to make it possible for farmers to reduce the application of fertilizers and pesticides.
- (E) Governmental price supports for farm products are set at levels that are not high enough to allow farmers to get out of debt.

CR02270

119. Ten years ago the number of taxpayers in Greenspace County was slightly greater than the number of registered voters. The number of taxpayers has doubled over the last ten years, while the number of registered voters has increased, but at a lower rate than has the number of taxpayers. Which of the following must be true in Greenspace County if the statements above are true?

- (A) The number of taxpayers is now smaller than the number of registered voters.
- (B) Everyone who is a registered voter is also a taxpayer.
- (C) The proportion of registered voters to taxpayers has increased over the last ten years.
- (D) The proportion of registered voters to taxpayers has decreased over the last ten years.
- (E) The proportion of registered voters to taxpayers has remained unchanged over the last ten years.

CR01298

120. From 1900 until the 1930s, pellagra, a disease later discovered to result from a deficiency of the vitamin niacin, was common among poor cotton farmers in the United States whose diet consisted mostly of corn, the least costly food they could buy. Corn does not contain niacin in usable form. Curiously, during the Depression of the early 1930s, when cotton's price collapsed and cotton farmers' income declined, the incidence of pellagra among those farmers also declined.

Which of the following, if true, most helps to explain the decline in the incidence of pellagra?

- (A) When growing a cash crop could not generate adequate income, poor farmers in the United States responded by planting their land with vegetables and fruits for their own consumption.
- (B) People whose diets consist largely of corn often suffer from protein deficiency as well as niacin deficiency.
- (C) Until the discovery of pellagra's link with niacin, it was widely believed that the disease was an infection that could be transmitted from person to person.
- (D) Effective treatment for pellagra became available once its link with niacin was established.
- (E) In parts of Mexico, where people subsisted on corn but pellagra was uncommon, corn was typically processed with alkaline substances, which make the niacin in the corn absorbable.

CR07589

121. The interview is an essential part of a successful hiring program because, with it, job applicants who have personalities that are unsuited to the requirements of the job will be eliminated from consideration.

The argument above logically depends on which of the following assumptions?

- (A) A hiring program will be successful if it includes interviews.
- (B) The interview is a more important part of a successful hiring program than is the development of a job description.
- (C) Interviewers can accurately identify applicants whose personalities are unsuited to the requirements of the job.
- (D) The only purpose of an interview is to evaluate whether job applicants' personalities are suited to the requirements of the job.
- (E) The fit of job applicants' personalities to the requirements of the job was once the most important factor in making hiring decisions.

CR07785

122. Many leadership theories have provided evidence that leaders affect group success rather than the success of particular individuals. So it is irrelevant to analyze the effects of supervisor traits on the attitudes of individuals whom they supervise. Instead, assessment of leadership effectiveness should occur only at the group level.

Which of the following would it be most useful to establish in order to evaluate the argument?

- (A) Whether supervisors' documentation of individual supervisees' attitudes toward them is usually accurate
- (B) Whether it is possible to assess individual supervisees' attitudes toward their supervisors without thereby changing those attitudes
- (C) Whether any of the leadership theories in question hold that leaders should assess other leaders' attitudes
- (D) Whether some types of groups do not need supervision in order to be successful in their endeavors
- (E) Whether individuals' attitudes toward supervisors affect group success

CR03535

123. A major health insurance company in Lagolia pays for special procedures prescribed by physicians only if the procedure is first approved as “medically necessary” by a company-appointed review panel. The rule is intended to save the company the money it might otherwise spend on medically unnecessary procedures. The company has recently announced that in order to reduce its costs, it will abandon this rule. Which of the following, if true, provides the strongest justification for the company’s decision?

- (A) Patients often register dissatisfaction with physicians who prescribe nothing for their ailments.
- (B) Physicians often prescribe special procedures that are helpful but not altogether necessary for the health of the patient.
- (C) The review process is expensive and practically always results in approval of the prescribed procedure.
- (D) The company’s review process does not interfere with the prerogative of physicians, in cases where more than one effective procedure is available, to select the one they personally prefer.
- (E) The number of members of the company-appointed review panel who review a given procedure depends on the cost of the procedure.

CR03826

124. Automobile ownership was rare in Sabresia as recently as 30 years ago, but with continuing growth of personal income there, automobile ownership has become steadily more common. Consequently, there are now far more automobiles on Sabresia’s roads than there were 30 years ago, and the annual number of automobile accidents has increased significantly. Yet the annual number of deaths and injuries resulting from automobile accidents has not increased significantly. Which of the following, if true, most helps to explain why deaths and injuries resulting from automobile accidents have not increased significantly?

- (A) Virtually all of the improvements in Sabresia’s roads that were required to accommodate increased traffic were completed more than ten years ago.
- (B) With more and more people owning cars, the average number of passengers in a car on the road has dropped dramatically.
- (C) The increases in traffic volume have been most dramatic on Sabresia’s highways, where speeds are well above those of other roads.
- (D) Because of a vigorous market in used cars, the average age of cars on the road has actually increased throughout the years of steady growth in automobile ownership.
- (E) Automobile ownership is still much less common in Sabresia than it is in other countries.

CR01430

125. To evaluate a plan to save money on office-space expenditures by having its employees work at home, XYZ Company asked volunteers from its staff to try the arrangement for six months. During this period, the productivity of these employees was as high as or higher than before.

Which of the following, if true, would argue most strongly against deciding, on the basis of the trial results, to implement the company's plan?

- (A) The employees who agreed to participate in the test of the plan were among the company's most self-motivated and independent workers.
- (B) The savings that would accrue from reduced office-space expenditures alone would be sufficient to justify the arrangement for the company, apart from any productivity increases.
- (C) Other companies that have achieved successful results from work-at-home plans have workforces that are substantially larger than that of XYZ.
- (D) The volunteers who worked at home were able to communicate with other employees as necessary for performing the work.
- (E) Minor changes in the way office work is organized at XYZ would yield increases in employee productivity similar to those achieved in the trial.

CR04180

126. A child learning to play the piano will not succeed unless the child has an instrument at home on which to practice. However, good-quality pianos, whether new or secondhand, are costly. Buying one is justified only if the child has the necessary talent and perseverance, which is precisely what one cannot know in advance. Consequently, parents should buy an inexpensive secondhand instrument at first and upgrade if and when the child's ability and inclination are proven.

Which of the following, if true, casts the most serious doubt on the course of action recommended for parents?

- (A) Learners, particularly those with genuine musical talent, are apt to lose interest in the instrument if they have to play on a piano that fails to produce a pleasing sound.
- (B) Reputable piano teachers do not accept children as pupils unless they know that the children can practice on a piano at home.
- (C) Ideally, the piano on which a child practices at home should be located in a room away from family activities going on at the same time.
- (D) Very young beginners often make remarkable progress at playing the piano at first, but then appear to stand still for a considerable period of time.
- (E) In some parents, spending increasing amounts of money on having their children learn to play the piano produces increasing anxiety to hear immediate results.

CR05096

127. Nutritionists are advising people to eat more fish, since the omega-3 fatty acids in fish help combat many diseases. If everyone took this advice, however, there would not be enough fish in oceans, rivers, and lakes to supply the demand; the oceans are already being overfished. The obvious method to ease the pressure on wild fish populations is for people to increase their consumption of farmed fish.

Which of the following, if true, raises the most serious doubt concerning the prospects for success of the solution proposed above?

- (A) Aquaculture, or fish farming, raises more fish in a given volume of water than are generally present in the wild.
- (B) Some fish farming, particularly of shrimp and other shellfish, takes place in enclosures in the ocean.
- (C) There are large expanses of ocean waters that do not contain enough nutrients to support substantial fish populations.
- (D) The feed for farmed ocean fish is largely made from small wild-caught fish, including the young of many popular food species.
- (E) Some of the species that are now farmed extensively were not commonly eaten when they were only available in the wild.

CR02851

128. Which of the following most logically completes the market forecaster's argument?

Market forecaster: The price of pecans is high when pecans are comparatively scarce but drops sharply when pecans are abundant. Thus, in high-yield years, growers often store part of their crop in refrigerated warehouses until after the next year's harvest, hoping for higher prices then. Because of bad weather, this year's pecan crop will be very small. Nevertheless, pecan prices this year will not be significantly higher than last year, since \_\_\_\_\_.

- (A) the last time the pecan crop was as small as it was this year, the practice of holding back part of one year's crop had not yet become widely established
- (B) last year's pecan harvest was the largest in the last 40 years
- (C) pecan prices have remained relatively stable in recent years
- (D) pecan yields for some farmers were as high this year as they had been last year
- (E) the quality of this year's pecan crop is as high as the quality of any pecan crop in the previous five years

CR06331

129. It is often said that high rates of inflation tend to diminish people's incentive to save and invest. This view must be incorrect, however, because people generally saved and invested more of their income in the 1970's when inflation rates were high than they did in the 1980's when inflation rates were low.

Of the following, the best criticism of the argument above is that it overlooks the possibility that

- (A) all people do not respond in the same way to a given economic stimulus
- (B) certain factors operating in the 1980's but not in the 1970's diminished people's incentive to save and invest
- (C) the population was larger in the 1980's than it was in the 1970's
- (D) the proponents of the view cited would stand to gain if inflation rates become lower
- (E) a factor that affects people's savings behavior in a certain way could affect people's investment behavior quite differently

CR02704

130. Which of the following most logically completes the argument below?

Within the earth's core, which is iron, pressure increases with depth. Because the temperature at which iron melts increases with pressure, the inner core is solid and the outer core is molten. Physicists can determine the melting temperature of iron at any given pressure and the pressure for any given depth in the earth. Therefore, the actual temperature at the boundary of the earth's outer and inner cores—the melting temperature of iron there—can be determined, since \_\_\_\_\_.

- (A) the depth beneath the earth's surface of the boundary between the outer and inner cores is known
- (B) some of the heat from the earth's core flows to the surface of the earth
- (C) pressures within the earth's outer core are much greater than pressures above the outer core
- (D) nowhere in the earth's core can the temperature be measured directly
- (E) the temperatures within the earth's inner core are higher than in the outer core

CR03659

131. Which of the following most logically completes the reasoning?

Either food scarcity or excessive hunting can threaten a population of animals. If the group faces food scarcity, individuals in the group will reach reproductive maturity later than otherwise. If the group faces excessive hunting, individuals that reach reproductive maturity earlier will come to predominate. Therefore, it should be possible to determine whether prehistoric mastodons became extinct because of food scarcity or human hunting, since there are fossilized mastodon remains from both before and after mastodon populations declined, and \_\_\_\_\_.

- (A) there are more fossilized mastodon remains from the period before mastodon populations began to decline than from after that period
- (B) the average age at which mastodons from a given period reached reproductive maturity can be established from their fossilized remains
- (C) it can be accurately estimated from fossilized remains when mastodons became extinct
- (D) it is not known when humans first began hunting mastodons
- (E) climate changes may have gradually reduced the food available to mastodons

CR02518

132. Many office buildings designed to prevent outside air from entering have been shown to have elevated levels of various toxic substances circulating through the air inside, a phenomenon known as sick building syndrome. Yet the air in other office buildings does not have elevated levels of these substances, even though those buildings are the same age as the “sick” buildings and have similar designs and ventilation systems.

Which of the following, if true, most helps to explain why not all office buildings designed to prevent outside air from entering have air that contains elevated levels of toxic substances?

- (A) Certain adhesives and drying agents used in particular types of furniture, carpets, and paint contribute the bulk of the toxic substances that circulate in the air of office buildings.
- (B) Most office buildings with sick building syndrome were built between 1950 and 1990.
- (C) Among buildings designed to prevent outside air from entering, houses are no less likely than office buildings to have air that contains elevated levels of toxic substances.
- (D) The toxic substances that are found in the air of “sick” office buildings are substances that are found in at least small quantities in nearly every building.
- (E) Office buildings with windows that can readily be opened are unlikely to suffer from sick building syndrome.

CR08756

133. **Newsletter: A condominium generally offers more value for its cost than an individual house because of economies of scale.** The homeowners in a condominium association can collectively buy products and services that they could not afford on their own. And since a professional management company handles maintenance of common areas, **condominium owners spend less time and money on maintenance than individual homeowners do.**

The two portions in boldface play which of the following roles in the newsletter’s argument?

- (A) The first is the argument’s main conclusion; the second is another conclusion supporting the first.
- (B) The first is a premise, for which no evidence is provided; the second is the argument’s only conclusion.
- (C) The first is a conclusion supporting the second; the second is the argument’s main conclusion.
- (D) The first is the argument’s only conclusion; the second is a premise, for which no evidence is provided.
- (E) Both are premises, for which no evidence is provided, and both support the argument’s only conclusion.

CR00780

134. Which of the following most logically completes the argument?

When officials in Tannersburg released their plan to widen the city's main roads, environmentalists protested that widened roads would attract more traffic and lead to increased air pollution. In response, city officials pointed out that today's pollution-control devices are at their most effective in vehicles traveling at higher speeds and that widening roads would increase the average speed of traffic. However, this effect can hardly be expected to offset the effect pointed out by environmentalists, since \_\_\_\_\_.

- (A) increases in traffic volume generally produce decreases in the average speed of traffic unless roads are widened
- (B) several of the roads that are slated for widening will have to be closed temporarily while construction is underway
- (C) most of the air pollution generated by urban traffic comes from vehicles that do not have functioning pollution-control devices
- (D) the newly widened roads will not have increased traffic volume if the roads that must be used to reach them are inadequate
- (E) a vehicle traveling on a route that goes through Tannersburg will spend less time on Tannersburg's roads once the roads are widened

CR06795

135. Premature babies who receive regular massages are more active than premature babies who do not. Even when all the babies drink the same amount of milk, the massaged babies gain more weight than do the unmassaged babies. This is puzzling because a more active person generally requires a greater food intake to maintain or gain weight.

Which of the following, if true, best reconciles the apparent discrepancy described above?

- (A) Increased activity leads to increased levels of hunger, especially when food intake is not also increased.
- (B) Massage increases premature babies' curiosity about their environment, and curiosity leads to increased activity.
- (C) Increased activity causes the intestines of premature babies to mature more quickly, enabling the babies to digest and absorb more of the nutrients in the milk they drink.
- (D) Massage does not increase the growth rate of babies over one year old, if the babies had not been previously massaged.
- (E) Premature babies require a daily intake of nutrients that is significantly higher than that required by babies who were not born prematurely.

CR02865

136. In Australia, in years with below-average rainfall, less water goes into rivers and more water is extracted from rivers for drinking and irrigation. Consequently, in such years, water levels drop considerably and the rivers flow more slowly. Because algae grow better the more slowly the water in which they are growing moves, such years are generally beneficial to populations of algae. But, by contrast, populations of algae drop in periods of extreme drought.

Which of the following, if true, does most to explain the contrast?

- (A) Algae grow better in ponds and lakes than in rivers.
- (B) The more slowly water moves, the more conducive its temperature is to the growth of algae.
- (C) Algae cannot survive in the absence of water.
- (D) Algae must be filtered out of water before it can be used for drinking.
- (E) The larger the population of algae in a body of water, the less sunlight reaches below the surface of the water.

CR00693

137. Which of the following, if true, most logically completes the politician's argument?

United States politician: Although the amount of United States goods shipped to Mexico doubled in the year after tariffs on trade between the two countries were reduced, it does not follow that the reduction in tariffs caused the sales of United States goods to companies and consumers in Mexico to double that year, because \_\_\_\_\_.

- (A) many of the United States companies that produced goods that year had competitors based in Mexico that had long produced the same kind of goods
- (B) most of the increase in goods shipped by United States companies to Mexico was in parts shipped to the companies' newly relocated subsidiaries for assembly and subsequent shipment back to the United States
- (C) marketing goods to a previously unavailable group of consumers is most successful when advertising specifically targets those consumers, but developing such advertising often takes longer than a year
- (D) the amount of Mexican goods shipped to the United States remained the same as it had been before the tariff reductions
- (E) there was no significant change in the employment rate in either of the countries that year

CR06845

138. Budget constraints have made police officials consider reassigning a considerable number of officers from traffic enforcement to work on higher-priority, serious crimes. Reducing traffic enforcement for this reason would be counterproductive, however, in light of the tendency of criminals to use cars when engaged in the commission of serious crimes. An officer stopping a car for a traffic violation can make a search that turns up evidence of serious crime.

Which of the following, if true, most strengthens the argument given?

- (A) An officer who stops a car containing evidence of the commission of a serious crime risks a violent confrontation, even if the vehicle was stopped only for a traffic violation.
- (B) When the public becomes aware that traffic enforcement has lessened, it typically becomes lax in obeying traffic rules.
- (C) Those willing to break the law to commit serious crimes are often in committing such crimes unwilling to observe what they regard as the lesser constraints of traffic law.
- (D) The offenders committing serious crimes who would be caught because of traffic violations are not the same group of individuals as those who would be caught if the arresting officers were reassigned from traffic enforcement.
- (E) The great majority of persons who are stopped by officers for traffic violations are not guilty of any serious crimes.

CR10106

139. Conventional wisdom suggests vaccinating elderly people first in flu season, because they are at greatest risk of dying if they contract the virus. This year's flu virus poses particular risk to elderly people and almost none at all to younger people, particularly children. Nevertheless, health professionals are recommending vaccinating children first against the virus rather than elderly people.

Which of the following, if true, provides the strongest reason for the health professionals' recommendation?

- (A) Children are vulnerable to dangerous infections when their immune systems are severely weakened by other diseases.
- (B) Children are particularly unconcerned with hygiene and therefore are the group most responsible for spreading the flu virus to others.
- (C) The vaccinations received last year will confer no immunity to this year's flu virus.
- (D) Children who catch one strain of the flu virus and then recover are likely to develop immunity to at least some strains with which they have not yet come in contact.
- (E) Children are no more likely than adults to have immunity to a particular flu virus if they have never lived through a previous epidemic of the same virus.

CR01392

140. Pro-Tect Insurance Company has recently been paying out more on car-theft claims than it expected. Cars with special antitheft devices or alarm systems are much less likely to be stolen than are other cars. Consequently Pro-Tect, as part of an effort to reduce its annual payouts, will offer a discount to holders of car-theft policies if their cars have antitheft devices or alarm systems.

Which of the following, if true, provides the strongest indication that the plan is likely to achieve its goal?

- (A) The decrease in the risk of car theft conferred by having a car alarm is greatest when only a few cars have such alarms.
- (B) The number of policyholders who have filed a claim in the past year is higher for Pro-Tect than for other insurance companies.
- (C) In one or two years, the discount that Pro-Tect is offering will amount to more than the cost of buying certain highly effective antitheft devices.
- (D) Currently, Pro-Tect cannot legally raise the premiums it charges for a given amount of insurance against car theft.
- (E) The amount Pro-Tect has been paying out on car-theft claims has been greater for some models of car than for others.

CR00783

141. While the total enrollment of public elementary and secondary schools in Sondland is one percent higher this academic year than last academic year, the number of teachers there increased by three percent. Thus, the Sondland Education Commission's prediction of a teacher shortage as early as next academic year is unfounded.

Which of the following, if true, most seriously weakens the claim that the prediction of a teacher shortage as early as next academic year is unfounded?

- (A) Funding for public elementary schools in Sondland is expected to increase over the next ten years.
- (B) Average salaries for Sondland's teachers increased at the rate of inflation from last academic year to this academic year.
- (C) A new law has mandated that there be ten percent more teachers per pupil in Sondland's public schools next academic year than there were this academic year.
- (D) In the past, increases in enrollments in public elementary and secondary schools in Sondland have generally been smaller than increases in the number of teachers.
- (E) Because of reductions in funding, the number of students enrolling in teacher-training programs in Sondland is expected to decline beginning in the next academic year.

CR05590

142. Art restorers who have been studying the factors that cause Renaissance oil paintings to deteriorate physically when subject to climatic changes have found that the oil paint used in these paintings actually adjusts to these changes well. The restorers therefore hypothesize that it is a layer of material called gesso, which is under the paint, that causes the deterioration.

Which of the following, if true, most strongly supports the restorers' hypothesis?

- (A) Renaissance oil paintings with a thin layer of gesso are less likely to show deterioration in response to climatic changes than those with a thicker layer.
- (B) Renaissance oil paintings are often painted on wooden panels, which swell when humidity increases and contract when it declines.
- (C) Oil paint expands and contracts readily in response to changes in temperature, but it absorbs little water and so is little affected by changes in humidity.
- (D) An especially hard and nonabsorbent type of gesso was the raw material for moldings on the frames of Renaissance oil paintings.
- (E) Gesso layers applied by Renaissance painters typically consisted of a coarse base layer onto which several increasingly fine-grained layers were applied.

CRI0731

143. A newly discovered painting seems to be the work of one of two 17th-century artists, either the northern German Johannes Drechen or the Frenchman Louis Birelle, who sometimes painted in the same style as Drechen. Analysis of the carved picture frame, which has been identified as the painting's original 17th-century frame, showed that it is made of wood found widely in northern Germany at the time, but rare in the part of France where Birelle lived. This shows that the painting is most likely the work of Drechen.

Which of the following is an assumption that the argument requires?

- (A) The frame was made from wood local to the region where the picture was painted.
- (B) Drechen is unlikely to have ever visited the home region of Birelle in France.
- (C) Sometimes a painting so closely resembles others of its era that no expert is able to confidently decide who painted it.
- (D) The painter of the picture chose the frame for the picture.
- (E) The carving style of the picture frame is not typical of any specific region of Europe.

CR09120

144. Archaeologists working in the Andes Mountains recently excavated a buried 4,000-year-old temple containing structures that align with a stone carving on a distant hill to indicate the direction of the rising sun at the summer solstice. Alignments in the temple were also found to point toward the position, at the summer solstice, of a constellation known in Andean culture as the Fox. Since the local mythology represents the fox as teaching people how to cultivate and irrigate plants, the ancient Andeans may have built the temple as a religious representation of the fox.

Which of the following is an assumption on which the argument is based?

- (A) The constellation known as the Fox has the same position at the summer solstice as it did 4,000 years ago.
- (B) In the region around the temple, the summer solstice marks the time for planting.
- (C) The temple was protected from looters by dirt and debris built up over thousands of years.
- (D) Other structural alignments at the temple point to further constellations with agricultural significance.
- (E) The site containing the temple was occupied for a significant amount of time before abandonment.

CR05065

145. Meat from chickens contaminated with salmonella bacteria can cause serious food poisoning. Capsaicin, the chemical that gives chili peppers their hot flavor, has antibacterial properties. Chickens do not have taste receptors for capsaicin and will readily eat feed laced with capsaicin. When chickens were fed such feed and then exposed to salmonella bacteria, relatively few of them became contaminated with salmonella.

In deciding whether the feed would be useful in raising salmonella-free chicken for retail sale, it would be most helpful to determine which of the following?

- (A) Whether feeding capsaicin to chickens affects the taste of their meat
- (B) Whether eating capsaicin reduces the risk of salmonella poisoning for humans
- (C) Whether chicken is more prone to salmonella contamination than other kinds of meat
- (D) Whether appropriate cooking of chicken contaminated with salmonella can always prevent food poisoning
- (E) Whether capsaicin can be obtained only from chili peppers

CR04532

146. Which of the following most logically completes the argument below?

When mercury-vapor streetlights are used in areas inhabited by insect-eating bats, the bats feed almost exclusively around the lights, because the lights attract flying insects. In Greenville, the mercury-vapor streetlights are about to be replaced with energy-saving sodium streetlights, which do not attract insects. This change is likely to result in a drop in the population of insect-eating bats in Greenville, since \_\_\_\_\_.

- (A) the bats do not begin to hunt until after sundown
- (B) the bats are unlikely to feed on insects that do not fly
- (C) the highway department will be able to replace mercury-vapor streetlights with sodium streetlights within a relatively short time and without disrupting the continuity of lighting at the locations of the streetlights
- (D) in the absence of local concentrations of the flying insects on which bats feed, the bats expend much more energy on hunting for food, requiring much larger quantities of insects to sustain each bat
- (E) bats use echolocation to catch insects and therefore gain no advantage from the fact that insects flying in the vicinity of streetlights are visible at night

CR01353

147. Rats injected with morphine exhibit decreased activity of the immune system, the bodily system that fights off infections. These same rats exhibited heightened blood levels of corticosteroids, chemicals secreted by the adrenal glands. Since corticosteroids can interfere with immune-system activity, scientists hypothesized that the way morphine reduces immune responses in rats is by stimulating the adrenal glands to secrete additional corticosteroids into the bloodstream.

Which of the following experiments would yield the most useful results for evaluating the scientists' hypothesis?

- (A) Injecting morphine into rats that already have heightened blood levels of corticosteroids and then observing their new blood levels of corticosteroids
- (B) Testing the level of immune-system activity of rats, removing their adrenal glands, and then testing the rats' immune-system activity levels again
- (C) Injecting rats with corticosteroids and then observing how many of the rats contracted infections
- (D) Removing the adrenal glands of rats, injecting the rats with morphine, and then testing the level of the rats' immune-system responses
- (E) Injecting rats with a drug that stimulates immune-system activity and then observing the level of corticosteroids in their bloodstreams

CR06831

148. Curator: If our museum lends *Venus* to the Hart Institute for their show this spring, they will lend us their Rembrandt etchings for our print exhibition next fall. Having those etchings will increase attendance to the exhibition and hence increase revenue from our general admission fee.

Museum Administrator: But *Venus* is our biggest attraction. Moreover the Hart's show will run for twice as long as our exhibition. So on balance the number of patrons may decrease.

The point of the administrator's response to the curator is to question

- (A) whether getting the Rembrandt etchings from the Hart Institute is likely to increase attendance at the print exhibition
- (B) whether the Hart Institute's Rembrandt etchings will be appreciated by those patrons of the curator's museum for whom the museum's biggest attraction is *Venus*
- (C) whether the number of patrons attracted by the Hart Institute's Rembrandt etchings will be larger than the number of patrons who do not come in the spring because *Venus* is on loan
- (D) whether, if *Venus* is lent, the museum's revenue from general admission fees during the print exhibition will exceed its revenue from general admission fees during the Hart Institute's exhibition
- (E) whether the Hart Institute or the curator's museum will have the greater financial gain from the proposed exchange of artworks

CR03697

149. Which of the following most logically completes the passage?

Leaf beetles damage willow trees by stripping away their leaves, but a combination of parasites and predators generally keeps populations of these beetles in check. Researchers have found that severe air pollution results in reduced predator populations. The parasites, by contrast, are not adversely affected by pollution; nevertheless, the researchers' discovery probably does explain why leaf beetles cause particularly severe damage to willows in areas with severe air pollution, since \_\_\_\_\_.

- (A) neither the predators nor the parasites of leaf beetles themselves attack willow trees
- (B) the parasites that attack leaf beetles actually tend to be more prevalent in areas with severe air pollution than they are elsewhere
- (C) the damage caused by leaf beetles is usually not enough to kill a willow tree outright
- (D) where air pollution is not especially severe, predators have much more impact on leaf-beetle populations than parasites do
- (E) willows often grow in areas where air pollution is especially severe

CR06438

150. On May first, in order to reduce the number of overdue books, a children's library instituted a policy of forgiving fines and giving bookmarks to children returning all of their overdue books. On July first there were twice as many overdue books as there had been on May first, although a record number of books had been returned during the interim.

Which of the following, if true, most helps to explain the apparent inconsistency in the results of the library's policy?

- (A) The librarians did not keep accurate records of how many children took advantage of the grace period, and some of the children returning overdue books did not return all of their overdue books.
- (B) Although the grace period enticed some children to return all of their overdue books, it did not convince all of the children with overdue books to return all of their books.
- (C) The bookmarks became popular among the children, so in order to collect the bookmarks, many children borrowed many more books than they usually did and kept them past their due date.
- (D) The children were allowed to borrow a maximum of five books for a two-week period, and hence each child could keep a maximum of fifteen books beyond their due date within a two-month period.
- (E) Although the library forgave overdue fines during the grace period, the amount previously charged the children was minimal; hence, the forgiveness of the fines did not provide enough incentive for them to return their overdue books.

CR00663

151. A certain species of desert lizard digs tunnels in which to lay its eggs. The eggs must incubate inside the tunnel for several weeks before hatching, and they fail to hatch if they are disturbed at any time during this incubation period. Yet these lizards guard their tunnels for only a few days after laying their eggs.

Which of the following, if true, most helps explain why there is no need for lizards to guard their tunnels for more than a few days?

- (A) The eggs are at risk of being disturbed only during the brief egg-laying season when many lizards are digging in a relatively small area.
- (B) The length of the incubation period varies somewhat from one tunnel to another.
- (C) Each female lizard lays from 15 to 20 eggs, only about 10 of which hatch even if the eggs are not disturbed at any time during the incubation period.
- (D) The temperature and humidity within the tunnels will not be suitable for the incubating eggs unless the tunnels are plugged with sand immediately after the eggs are laid.
- (E) The only way to disturb the eggs of this lizard species is by opening up one of the tunnels in which they are laid.

CR00677

152. Most banks that issue credit cards charge interest rates on credit card debt that are ten percentage points higher than the rates those banks charge for ordinary consumer loans. These banks' representatives claim the difference is fully justified, since it simply covers the difference between the costs to these banks associated with credit card debt and those associated with consumer loans.

Which of the following, if true, most seriously calls into question the reasoning offered by the banks' representatives?

- (A) Some lenders that are not banks offer consumer loans at interest rates that are even higher than most banks charge on credit card debt.
- (B) Most car rental companies require that their customers provide signed credit card charge slips or security deposits.
- (C) Two to three percent of the selling price of every item bought with a given credit card goes to the bank that issued that credit card.
- (D) Most people need not use credit cards to buy everyday necessities, but could buy those necessities with cash or pay by check.
- (E) People who pay their credit card bills in full each month usually pay no interest on the amounts they charge.

CR00726

153. Often patients with ankle fractures that are stable, and thus do not require surgery, are given follow-up x-rays because their orthopedists are concerned about possibly having misjudged the stability of the fracture. When a number of follow-up x-rays were reviewed, however, all the fractures that had initially been judged stable were found to have healed correctly. Therefore, it is a waste of money to order follow-up x-rays of ankle fractures initially judged stable.

Which of the following, if true, most strengthens the argument?

- (A) Doctors who are general practitioners rather than orthopedists are less likely than orthopedists to judge the stability of an ankle fracture correctly.
- (B) Many ankle injuries for which an initial x-ray is ordered are revealed by the x-ray not to involve any fracture of the ankle.
- (C) X-rays of patients of many different orthopedists working in several hospitals were reviewed.
- (D) The healing of ankle fractures that have been surgically repaired is always checked by means of a follow-up x-ray.
- (E) Orthopedists routinely order follow-up x-rays for fractures of bones other than ankle bones.

CR05431

154. In setting environmental standards for industry and others to meet, it is inadvisable to require the best results that state-of-the-art technology can achieve. Current technology is able to detect and eliminate even extremely minute amounts of contaminants, but at a cost that is exorbitant relative to the improvement achieved. So it would be reasonable instead to set standards by taking into account all of the current and future risks involved. The argument given concerning the reasonable way to set standards presupposes that

- (A) industry currently meets the standards that have been set by environmental authorities
- (B) there are effective ways to take into account all of the relevant risks posed by allowing different levels of contaminants
- (C) the only contaminants worth measuring are generated by industry
- (D) it is not costly to prevent large amounts of contaminants from entering the environment
- (E) minute amounts of some contaminants can be poisonous

CR05750

155. The chemical adenosine is released by brain cells when those cells are active. Adenosine then binds to more and more sites on cells in certain areas of the brain, as the total amount released gradually increases during wakefulness. During sleep, the number of sites to which adenosine is bound decreases. Some researchers have hypothesized that it is the cumulative binding of adenosine to a large number of sites that causes the onset of sleep.

Which of the following, if true, provides the most support for the researchers' hypothesis?

- (A) Even after long periods of sleep when adenosine is at its lowest concentration in the brain, the number of brain cells bound with adenosine remains very large.
- (B) Caffeine, which has the effect of making people remain wakeful, is known to interfere with the binding of adenosine to sites on brain cells.
- (C) Besides binding to sites in the brain, adenosine is known to be involved in biochemical reactions throughout the body.
- (D) Some areas of the brain that are relatively inactive nonetheless release some adenosine.
- (E) Stress resulting from a dangerous situation can preserve wakefulness even when brain levels of bound adenosine are high.

CR01101

156. A two-year study beginning in 1977 found that, among 85-year-old people, those whose immune systems were weakest were twice as likely to die within two years as others in the study. The cause of their deaths, however, was more often heart disease, against which the immune system does not protect, than cancer or infections, which are attacked by the immune system.

Which of the following, if true, would offer the best prospects for explaining deaths in which weakness of the immune system, though present, played no causal role?

- (A) There were twice as many infections among those in the study with the weakest immune systems as among those with the strongest immune systems.
- (B) The majority of those in the study with the strongest immune systems died from infection or cancer by 1987.
- (C) Some of the drugs that had been used to treat the symptoms of heart disease had a side effect of weakening the immune system.
- (D) Most of those in the study who survived beyond the two-year period had recovered from a serious infection sometime prior to 1978.
- (E) Those in the study who survived into the 1980s had, in 1976, strengthened their immune systems through drug therapy.

CR13093

157. Most scholars agree that King Alfred (A.D. 849–899) personally translated a number of Latin texts into Old English. One historian contends that Alfred also personally penned his own law code, arguing that the numerous differences between the language of the law code and Alfred's translations of Latin texts are outweighed by the even more numerous similarities. Linguistic similarities, however, are what one expects in texts from the same language, the same time, and the same region. Apart from Alfred's surviving translations and law code, there are only two other extant works from the same dialect and milieu, so it is risky to assume here that linguistic similarities point to common authorship.

The passage above proceeds by

- (A) providing examples that underscore another argument's conclusion
- (B) questioning the plausibility of an assumption on which another argument depends
- (C) showing that a principle if generally applied would have anomalous consequences
- (D) showing that the premises of another argument are mutually inconsistent
- (E) using argument by analogy to undermine a principle implicit in another argument

CR01355

158. Parland's alligator population has been declining in recent years, primarily because of hunting. Alligators prey heavily on a species of freshwater fish that is highly valued as food by Parlanders, who had hoped that the decline in the alligator population would lead to an increase in the numbers of these fish available for human consumption. Yet the population of this fish species has also declined, even though the annual number caught for human consumption has not increased.

Which of the following, if true, most helps to explain the decline in the population of the fish species?

- (A) The decline in the alligator population has meant that fishers can work in some parts of lakes and rivers that were formerly too dangerous.
- (B) Over the last few years, Parland's commercial fishing enterprises have increased the number of fishing boats they use.
- (C) Many Parlanders who hunt alligators do so because of the high market price of alligator skins, not because of the threat alligators pose to the fish population.
- (D) During Parland's dry season, holes dug by alligators remain filled with water long enough to provide a safe place for the eggs of this fish species to hatch.
- (E) In several neighboring countries through which Parland's rivers also flow, alligators are at risk of extinction as a result of extensive hunting.

CR05418

159. A company plans to develop a prototype weeding machine that uses cutting blades with optical sensors and microprocessors that distinguish weeds from crop plants by differences in shade of color. The inventor of the machine claims that it will reduce labor costs by virtually eliminating the need for manual weeding.

Which of the following is a consideration in favor of the company's implementing its plan to develop the prototype?

- (A) There is a considerable degree of variation in shade of color between weeds of different species.
- (B) The shade of color of some plants tends to change appreciably over the course of their growing season.
- (C) When crops are weeded manually, overall size and leaf shape are taken into account in distinguishing crop plants from weeds.
- (D) Selection and genetic manipulation allow plants of virtually any species to be economically bred to have a distinctive shade of color without altering their other characteristics.
- (E) Farm laborers who are responsible for the manual weeding of crops carry out other agricultural duties at times in the growing season when extensive weeding is not necessary.

CR05079

160. Aroca City currently funds its public schools through taxes on property. **In place of this system, the city plans to introduce a sales tax of 3 percent on all retail sales in the city.** Critics protest that 3 percent of current retail sales falls short of the amount raised for schools by property taxes. The critics are correct on this point. **Nevertheless, implementing the plan will probably not reduce the money going to Aroca's schools.** Several large retailers have selected Aroca City as the site for huge new stores, and these are certain to draw large numbers of shoppers from neighboring municipalities, where sales are taxed at rates of 6 percent and more. In consequence, retail sales in Aroca City are bound to increase substantially.

In the argument given, the two portions in **boldface** play which of the following roles?

- (A) The first presents a plan that the argument concludes is unlikely to achieve its goal; the second expresses that conclusion.
- (B) The first presents a plan that the argument concludes is unlikely to achieve its goal; the second presents evidence in support of that conclusion.
- (C) The first presents a plan that the argument contends is the best available; the second is a conclusion drawn by the argument to justify that contention.
- (D) The first presents a plan one of whose consequences is at issue in the argument; the second is the argument's conclusion about that consequence.
- (E) The first presents a plan that the argument seeks to defend against a certain criticism; the second is that criticism.

CRO6152

161. Which of the following most logically completes the argument?

A photograph of the night sky was taken with the camera shutter open for an extended period. The normal motion of stars across the sky caused the images of the stars in the photograph to appear as streaks. However, one bright spot was not streaked. Even if the spot were caused, as astronomers believe, by a celestial object, that object could still have been moving across the sky during the time the shutter was open, since \_\_\_\_\_.

- (A) the spot was not the brightest object in the photograph
- (B) the photograph contains many streaks that astronomers can identify as caused by noncelestial objects
- (C) stars in the night sky do not appear to shift position relative to each other
- (D) the spot could have been caused by an object that emitted a flash that lasted for only a fraction of the time that the camera shutter was open
- (E) if the camera shutter had not been open for an extended period, it would have recorded substantially fewer celestial objects

CRO9046

162. Economist: Paying extra for fair-trade coffee—coffee labeled with the Fairtrade logo—is intended to help \_\_\_\_ poor farmers, because they receive a higher price for the fair-trade coffee they grow. But this practice may hurt more farmers in developing nations than it helps. By raising average prices for coffee, it encourages more coffee to be produced than consumers want to buy. This lowers prices for non-fair-trade coffee and thus lowers profits for non-fair-trade coffee farmers. To evaluate the strength of the economist's argument, it would be most helpful to know which of the following?

- (A) Whether there is a way of alleviating the impact of the increased average prices for coffee on non-fair-trade coffee farmers' profits
- (B) What proportion of coffee farmers in developing nations produce fair-trade coffee
- (C) Whether many coffee farmers in developing nations also derive income from other kinds of farming
- (D) Whether consumers should pay extra for fair-trade coffee if doing so lowers profits for non-fair-trade coffee farmers
- (E) How fair-trade coffee farmers in developing nations could be helped without lowering profits for non-fair-trade coffee farmers

CR01887

163. Tanco, a leather manufacturer, uses large quantities of common salt to preserve animal hides. New environmental regulations have significantly increased the cost of disposing of salt water that results from this use, and, in consequence, Tanco is considering a plan to use potassium chloride in place of common salt. Research has shown that Tanco could reprocess the by-product of potassium chloride use to yield a crop fertilizer, leaving a relatively small volume of waste for disposal.

In determining the impact on company profits of using potassium chloride in place of common salt, it would be important for Tanco to research all of the following EXCEPT:

- (A) What difference, if any, is there between the cost of the common salt needed to preserve a given quantity of animal hides and the cost of the potassium chloride needed to preserve the same quantity of hides?
- (B) To what extent is the equipment involved in preserving animal hides using common salt suitable for preserving animal hides using potassium chloride?
- (C) What environmental regulations, if any, constrain the disposal of the waste generated in reprocessing the by-product of potassium chloride?
- (D) How closely does leather that results when common salt is used to preserve hides resemble that which results when potassium chloride is used?
- (E) Are the chemical properties that make potassium chloride an effective means for preserving animal hides the same as those that make common salt an effective means for doing so?

CR04999

164. Colorless diamonds can command high prices as gemstones. A type of less valuable diamonds can be treated to remove all color. Only sophisticated tests can distinguish such treated diamonds from naturally colorless ones. However, only 2 percent of diamonds mined are of the colored type that can be successfully treated, and many of those are of insufficient quality to make the treatment worthwhile. Surely, therefore, the vast majority of colorless diamonds sold by jewelers are naturally colorless.

A serious flaw in the reasoning of the argument is that

- (A) comparisons between the price diamonds command as gemstones and their value for other uses are omitted
- (B) information about the rarity of treated diamonds is not combined with information about the rarity of naturally colorless, gemstone diamonds
- (C) the possibility that colored diamonds might be used as gemstones, even without having been treated, is ignored
- (D) the currently available method for making colorless diamonds from colored ones is treated as though it were the only possible method for doing so
- (E) the difficulty that a customer of a jeweler would have in distinguishing a naturally colorless diamond from a treated one is not taken into account

CR14448

165. The Sumpton town council recently voted to pay a prominent artist to create an abstract sculpture for the town square. Critics of this decision protested that town residents tend to dislike most abstract art, and any art in the town square should reflect their tastes. But a town council spokesperson dismissed this criticism, pointing out that other public abstract sculptures that the same sculptor has installed in other cities have been extremely popular with those cities' local residents.

The statements above most strongly suggest that the main point of disagreement between the critics and the spokesperson is whether

- (A) it would have been reasonable to consult town residents on the decision
- (B) most Sumpton residents will find the new sculpture to their taste
- (C) abstract sculptures by the same sculptor have truly been popular in other cities
- (D) a more traditional sculpture in the town square would be popular among local residents
- (E) public art that the residents of Sumpton would find desirable would probably be found desirable by the residents of other cities

CR09085

166. Jay: Of course there are many good reasons to support the expansion of preventive medical care, but arguments claiming that it will lead to greater societal economic gains are misguided. Some of the greatest societal expenses arise from frequent urgent-care needs for people who have attained a long life due to preventive care.

Sunil: Your argument fails because you neglect economic gains outside the health care system: society suffers an economic loss when any of its productive members suffer preventable illnesses.

Sunil's response to Jay makes which of the following assumptions?

- (A) Those who receive preventive care are not more likely to need urgent care than are those who do not receive preventive care.
- (B) Jay intends the phrase "economic gains" to refer only to gains accruing to institutions within the health care system.
- (C) Productive members of society are more likely than others to suffer preventable illnesses.
- (D) The economic contributions of those who receive preventive medical care may outweigh the economic losses caused by preventive care.
- (E) Jay is incorrect in stating that patients who receive preventive medical care are long-lived.

CR01766

167. Boreal owls range over a much larger area than do other owls of similar size. The reason for this behavior is probably that the small mammals on which owls feed are especially scarce in the forests where boreal owls live, and the relative scarcity of prey requires the owls to range more extensively to find sufficient food.

Which of the following, if true, most helps to confirm the explanation above?

- (A) Some boreal owls range over an area eight times larger than the area over which any other owl of similar size ranges.
- (B) Boreal owls range over larger areas in regions where food of the sort eaten by small mammals is sparse than they do in regions where such food is abundant.
- (C) After their young hatch, boreal owls must hunt more often than before in order to feed both themselves and their newly hatched young.
- (D) Sometimes individual boreal owls hunt near a single location for many weeks at a time and do not range farther than a few hundred yards.
- (E) The boreal owl requires less food, relative to its weight, than is required by members of other owl species.

CR12567

168. Microbiologist: A lethal strain of salmonella recently showed up in a European country, causing an outbreak of illness that killed two people and infected twenty-seven others. Investigators blame the severity of the outbreak on the overuse of antibiotics, since the salmonella bacteria tested were shown to be drug-resistant. But this is unlikely because patients in the country where the outbreak occurred cannot obtain antibiotics to treat illness without a prescription, and the country's doctors prescribe antibiotics less readily than do doctors in any other European country.

Which of the following, if true, would most weaken the microbiologist's reasoning?

- (A) Physicians in the country where the outbreak occurred have become hesitant to prescribe antibiotics since they are frequently in short supply.
- (B) People in the country where the outbreak occurred often consume foods produced from animals that eat antibiotics-laden livestock feed.
- (C) Use of antibiotics in two countries that neighbor the country where the outbreak occurred has risen over the past decade.
- (D) Drug-resistant strains of salmonella have not been found in countries in which antibiotics are not generally available.
- (E) Salmonella has been shown to spread easily along the distribution chains of certain vegetables, such as raw tomatoes.

CR03416

169. Historian: Newton developed mathematical concepts and techniques that are fundamental to modern calculus. Leibniz developed closely analogous concepts and techniques. It has traditionally been thought that these discoveries were independent. Researchers have, however, recently discovered notes of Leibniz's that discuss one of Newton's books on mathematics. Several scholars have argued that since **the book includes a presentation of Newton's calculus concepts and techniques**, and since the notes were written before Leibniz's own development of calculus concepts and techniques, it is virtually certain that **the traditional view is false**. A more cautious conclusion than this is called for, however. Leibniz's notes are limited to early sections of Newton's book, sections that precede the ones in which Newton's calculus concepts and techniques are presented.

In the historian's reasoning, the two portions in **boldface** play which of the following roles?

- (A) The first is a claim that the historian rejects; the second is a position that that claim has been used to support.
- (B) The first is evidence that has been used to support a conclusion about which the historian expresses reservations; the second is that conclusion.
- (C) The first provides evidence in support of a position that the historian defends; the second is that position.
- (D) The first and the second each provide evidence in support of a position that the historian defends.
- (E) The first has been used in support of a position that the historian rejects; the second is a conclusion that the historian draws from that position.

CR03867

170. For over two centuries, no one had been able to make Damascus blades—blades with a distinctive serpentine surface pattern—but a contemporary sword maker may just have rediscovered how. Using iron with trace impurities that precisely matched those present in the iron used in historic Damascus blades, this contemporary sword maker seems to have finally hit on an intricate process by which he can produce a blade indistinguishable from a true Damascus blade.

Which of the following, if true, provides the strongest support for the hypothesis that trace impurities in the iron are essential for the production of Damascus blades?

- (A) There are surface features of every Damascus blade—including the blades produced by the contemporary sword maker—that are unique to that blade.
- (B) The iron with which the contemporary sword maker made Damascus blades came from a source of iron that was unknown two centuries ago.
- (C) Almost all the tools used by the contemporary sword maker were updated versions of tools that were used by sword makers over two centuries ago.
- (D) Production of Damascus blades by sword makers of the past ceased abruptly after those sword makers' original source of iron became exhausted.
- (E) Although Damascus blades were renowned for maintaining a sharp edge, the blade made by the contemporary sword maker suggests that they may have maintained their edge less well than blades made using what is now the standard process for making blades.

CR01903

171. Images from ground-based telescopes are invariably distorted by the Earth's atmosphere. Orbiting space telescopes, however, operating above Earth's atmosphere, should provide superbly detailed images. Therefore, ground-based telescopes will soon become obsolete for advanced astronomical research purposes.

Which of the following statements, if true, would cast the most doubt on the conclusion drawn above?

- (A) An orbiting space telescope due to be launched this year is far behind schedule and over budget, whereas the largest ground-based telescope was both within budget and on schedule.
- (B) Ground-based telescopes located on mountain summits are not subject to the kinds of atmospheric distortion which, at low altitudes, make stars appear to twinkle.
- (C) By careful choice of observatory location, it is possible for large-aperture telescopes to avoid most of the kind of wind turbulence that can distort image quality.
- (D) When large-aperture telescopes are located at high altitudes near the equator, they permit the best Earth-based observations of the center of the Milky Way Galaxy, a prime target of astronomical research.
- (E) Detailed spectral analyses, upon which astronomers rely for determining the chemical composition and evolutionary history of stars, require telescopes with more light-gathering capacity than space telescopes can provide.

CR07562

172. Generally scientists enter their field with the goal of doing important new research and accept as their colleagues those with similar motivation. Therefore, when any scientist wins renown as an expounder of science to general audiences, most other scientists conclude that this popularizer should no longer be regarded as a true colleague.

The explanation offered above for the low esteem in which scientific popularizers are held by research scientists assumes that

- (A) serious scientific research is not a solitary activity, but relies on active cooperation among a group of colleagues
- (B) research scientists tend not to regard as colleagues those scientists whose renown they envy
- (C) a scientist can become a famous popularizer without having completed any important research
- (D) research scientists believe that those who are well known as popularizers of science are not motivated to do important new research
- (E) no important new research can be accessible to or accurately assessed by those who are not themselves scientists

CR07676

173. Urban planner: When a city loses population due to migration, property taxes in that city tend to rise. This is because there are then fewer residents paying to maintain an infrastructure that was designed to support more people. Rising property taxes, in turn, drive more residents away, compounding the problem. Since the city of Stonebridge is starting to lose population, the city government should therefore refrain from raising property taxes.

Which of the following, if true, would most weaken the urban planner's argument?

- (A) If Stonebridge does not raise taxes on its residents to maintain its infrastructure, the city will become much less attractive to live in as that infrastructure decays.
- (B) Stonebridge at present benefits from grants provided by the national government to help maintain certain parts of its infrastructure.
- (C) If there is a small increase in property taxes in Stonebridge and a slightly larger proportion of total revenue than at present is allocated to infrastructure maintenance, the funding will be adequate for that purpose.
- (D) Demographers project that the population of a region that includes Stonebridge will start to increase substantially within the next several years.
- (E) The property taxes in Stonebridge are significantly lower than those in many larger cities.

CR01338

174. Which of the following most logically completes the argument?

Utrania was formerly a major petroleum exporter, but in recent decades economic stagnation and restrictive regulations inhibited investment in new oil fields. In consequence, Utranian oil exports dropped steadily as old fields became depleted. Utrania's currently improving economic situation, together with less-restrictive regulations, will undoubtedly result in the rapid development of new fields. However, it would be premature to conclude that the rapid development of new fields will result in higher oil exports, because

- 
- (A) the price of oil is expected to remain relatively stable over the next several years
  - (B) the improvement in the economic situation in Utrania is expected to result in a dramatic increase in the proportion of Utranians who own automobiles
  - (C) most of the investment in new oil fields in Utrania is expected to come from foreign sources
  - (D) new technology is available to recover oil from old oil fields formerly regarded as depleted
  - (E) many of the new oil fields in Utrania are likely to be as productive as those that were developed during the period when Utrania was a major oil exporter

CR09592

175. The use of growth-promoting antibiotics in hog farming can weaken their effectiveness in treating humans because such use can spread resistance to those antibiotics among microorganisms. But now the Smee Company, one of the largest pork marketers, may stop buying pork raised on feed containing these antibiotics. Smee has 60 percent of the pork market, and farmers who sell to Smee would certainly stop using antibiotics in order to avoid jeopardizing their sales. So if Smee makes this change, it will probably significantly slow the decline in antibiotics' effectiveness for humans.

Which of the following, if true, would most strengthen the argument above?

- (A) Other major pork marketers will probably stop buying pork raised on feed containing growth-promoting antibiotics if Smee no longer buys such pork.
- (B) The decline in hog growth due to discontinuation of antibiotics can be offset by improved hygiene.
- (C) Authorities are promoting the use of antibiotics to which microorganisms have not yet developed resistance.
- (D) A phaseout of use of antibiotics for hogs in one country reduced usage by over 50 percent over five years.
- (E) If Smee stops buying pork raised with antibiotics, the firm's costs will probably increase.

CR10678

176. In an experiment, volunteers walked individually through a dark, abandoned theater. Half of the volunteers had been told that the theater was haunted and the other half that it was under renovation. The first half reported significantly more unusual experiences than the second did. The researchers concluded that reports of encounters with ghosts and other supernatural entities generally result from prior expectations of such experiences.

Which of the following, if true, would most seriously weaken the researchers' reasoning?

- (A) None of the volunteers in the second half believed that the unusual experiences they reported were supernatural.
- (B) All of the volunteers in the first half believed that the researchers' statement that the theater was haunted was a lie.
- (C) Before being told about the theater, the volunteers within each group varied considerably in their prior beliefs about supernatural experiences.
- (D) Each unusual experience reported by the volunteers had a cause that did not involve the supernatural.
- (E) The researchers did not believe that the theater was haunted.

CR05665

177. In order to reduce dependence on imported oil, the government of Jalica has imposed minimum fuel-efficiency requirements on all new cars, beginning this year. The more fuel-efficient a car, the less pollution it produces per mile driven. As Jalicans replace their old cars with cars that meet the new requirements, annual pollution from car traffic is likely to decrease in Jalica.

Which of the following, if true, most seriously weakens the argument?

- (A) In Jalica, domestically produced oil is more expensive than imported oil.
- (B) The Jalican government did not intend the new fuel-efficiency requirement to be a pollution-reduction measure.
- (C) Some pollution-control devices mandated in Jalica make cars less fuel-efficient than they would be without those devices.
- (D) The new regulation requires no change in the chemical formulation of fuel for cars in Jalica.
- (E) Jalicans who get cars that are more fuel-efficient tend to do more driving than before.

CR01173

178. Plantings of cotton bioengineered to produce its own insecticide against bollworms, a major cause of crop failure, sustained little bollworm damage until this year. This year the plantings are being seriously damaged by bollworms. Bollworms, however, are not necessarily developing resistance to the cotton's insecticide. Bollworms breed on corn, and last year more corn than usual was planted throughout cotton-growing regions. So it is likely that the cotton is simply being overwhelmed by corn-bred bollworms.

In evaluating the argument, which of the following would it be most useful to establish?

- (A) Whether corn could be bioengineered to produce the insecticide
- (B) Whether plantings of cotton that does not produce the insecticide are suffering unusually extensive damage from bollworms this year
- (C) Whether other crops that have been bioengineered to produce their own insecticide successfully resist the pests against which the insecticide was to protect them
- (D) Whether plantings of bioengineered cotton are frequently damaged by insect pests other than bollworms
- (E) Whether there are insecticides that can be used against bollworms that have developed resistance to the insecticide produced by the bioengineered cotton

CR03331

179. Typically during thunderstorms most lightning strikes carry a negative electric charge; only a few carry a positive charge. Thunderstorms with unusually high proportions of positive-charge strikes tend to occur in smoky areas near forest fires. The fact that smoke carries positively charged smoke particles into the air above a fire suggests the hypothesis that the extra positive strikes occur because of the presence of such particles in the storm clouds.

Which of the following, if discovered to be true, most seriously undermines the hypothesis?

- (A) Other kinds of rare lightning also occur with unusually high frequency in the vicinity of forest fires.
- (B) The positive-charge strikes that occur near forest fires tend to be no more powerful than positive strikes normally are.
- (C) A positive-charge strike is as likely to start a forest fire as a negative-charge strike is.
- (D) Thunderstorms that occur in drifting clouds of smoke have extra positive-charge strikes weeks after the charge of the smoke particles has dissipated.
- (E) The total number of lightning strikes during a thunderstorm is usually within the normal range in the vicinity of a forest fire.

CR01140

180. Many gardeners believe that the variety of clematis vine that is most popular among gardeners in North America is *jackmanii*. This belief is apparently correct since, of the one million clematis plants sold per year by the largest clematis nursery in North America, ten percent are *jackmanii*.

Which of the following is an assumption on which the argument depends?

- (A) The nursery sells more than ten different varieties of clematis.
- (B) The largest clematis nursery in North America sells nothing but clematis plants.
- (C) Some of the *jackmanii* sold by the nursery are sold to gardeners outside North America.
- (D) Most North American gardeners grow clematis in their gardens.
- (E) For all nurseries in North America that specialize in clematis, at least ten percent of the clematis plants they sell are *jackmanii*.

CR06422

181. Since 1990 the percentage of bacterial sinus infections in Aqadestan that are resistant to the antibiotic perxicillin has increased substantially. Bacteria can quickly develop resistance to an antibiotic when it is prescribed indiscriminately or when patients fail to take it as prescribed. Since perxicillin has not been indiscriminately prescribed, health officials hypothesize that the increase in perxicillin-resistant sinus infections is largely due to patients' failure to take this medication as prescribed.

Which of the following, if true of Aqadestan, provides most support for the health officials' hypothesis?

- (A) Resistance to several other commonly prescribed antibiotics has not increased since 1990 in Aqadestan.
- (B) A large number of Aqadestanis never seek medical help when they have a sinus infection.
- (C) When it first became available, perxicillin was much more effective in treating bacterial sinus infections than any other antibiotic used for such infections at the time.
- (D) Many patients who take perxicillin experience severe side effects within the first few days of their prescribed regimen.
- (E) Aqadestani health clinics provide antibiotics to their patients at cost.

CR07793

182. Psychologist: In a study, researchers gave 100 volunteers a psychological questionnaire designed to measure their self-esteem. The researchers then asked each volunteer to rate the strength of his or her own social skills. The volunteers with the highest levels of self-esteem consistently rated themselves as having much better social skills than did the volunteers with moderate levels. This suggests that attaining an exceptionally high level of self-esteem greatly improves one's social skills.

The psychologist's argument is most vulnerable to criticism on which of the following grounds?

- (A) It fails to adequately address the possibility that many of the volunteers may not have understood what the psychological questionnaire was designed to measure.
- (B) It takes for granted that the volunteers with the highest levels of self-esteem had better social skills than did the other volunteers, even before the former volunteers had attained their high levels of self-esteem.
- (C) It overlooks the possibility that people with very high levels of self-esteem may tend to have a less accurate perception of the strength of their own social skills than do people with moderate levels of self-esteem.
- (D) It relies on evidence from a group of volunteers that is too small to provide any support for any inferences regarding people in general.
- (E) It overlooks the possibility that factors other than level of self-esteem may be of much greater importance in determining the strength of one's social skills.

CR06826

183. A product that represents a clear technological advance over competing products can generally command a high price. Because **technological advances tend to be quickly surpassed** and companies want to make large profits while they still can, **many companies charge the maximum possible price for such a product**. But large profits on the new product will give competitors a strong incentive to quickly match the new product's capabilities. Consequently, the strategy to maximize overall profit from a new product is to charge less than the greatest possible price.

In the argument above, the two portions in **boldface** play which of the following roles?

- (A) The first is a consideration raised to argue that a certain strategy is counterproductive; the second presents that strategy.
- (B) The first is a consideration raised to support the strategy that the argument recommends; the second presents that strategy.
- (C) The first is a consideration raised to help explain the popularity of a certain strategy; the second presents that strategy.
- (D) The first is an assumption, rejected by the argument, that has been used to justify a course of action; the second presents that course of action.
- (E) The first is a consideration that has been used to justify adopting a certain strategy; the second presents the intended outcome of that strategy.

CR05554

184. Gortland has long been narrowly self-sufficient in both grain and meat. However, as per capita income in Gortland has risen toward the world average, per capita consumption of meat has also risen toward the world average, and it takes several pounds of grain to produce one pound of meat. Therefore, since per capita income continues to rise, whereas domestic grain production will not increase, Gortland will soon have to import either grain or meat or both.

Which of the following is an assumption on which the argument depends?

- (A) The total acreage devoted to grain production in Gortland will not decrease substantially.
- (B) The population of Gortland has remained relatively constant during the country's years of growing prosperity.
- (C) The per capita consumption of meat in Gortland is roughly the same across all income levels.
- (D) In Gortland, neither meat nor grain is subject to government price controls.
- (E) People in Gortland who increase their consumption of meat will not radically decrease their consumption of grain.

CR05625

## 185. Political Advertisement:

Mayor Delmont's critics complain about the jobs that were lost in the city under Delmont's leadership. Yet the fact is that not only were more jobs created than were eliminated, but each year since Delmont took office the average pay for the new jobs created has been higher than that year's average pay for jobs citywide. So it stands to reason that throughout Delmont's tenure the average paycheck in this city has been getting steadily bigger.

Which of the following, if true, most seriously weakens the argument in the advertisement?

- (A) The unemployment rate in the city is higher today than it was when Mayor Delmont took office.
- (B) The average pay for jobs in the city was at a ten-year low when Mayor Delmont took office.
- (C) Each year during Mayor Delmont's tenure, the average pay for jobs that were eliminated has been higher than the average pay for jobs citywide.
- (D) Most of the jobs eliminated during Mayor Delmont's tenure were in declining industries.
- (E) The average pay for jobs in the city is currently lower than it is for jobs in the suburbs surrounding the city.

CR04930

186. To prevent a newly built dam on the Chiff River from blocking the route of fish migrating to breeding grounds upstream, the dam includes a fish pass, a mechanism designed to allow fish through the dam. Before the construction of the dam and fish pass, several thousand fish a day swam upriver during spawning season. But in the first season after the project's completion, only 300 per day made the journey. Clearly, the fish pass is defective.

Which of the following, if true, most seriously weakens the argument?

- (A) Fish that have migrated to the upstream breeding grounds do not return down the Chiff River again.
- (B) On other rivers in the region, the construction of dams with fish passes has led to only small decreases in the number of fish migrating upstream.
- (C) The construction of the dam stirred up potentially toxic river sediments that were carried downstream.
- (D) Populations of migratory fish in the Chiff River have been declining slightly over the last 20 years.
- (E) During spawning season, the dam releases sufficient water for migratory fish below the dam to swim upstream.

CR09969

187. Music critic: Fewer and fewer musicians are studying classical music, decreasing the likelihood that those with real aptitude for such music will be performing it. Audiences who hear these performances will not appreciate classical music's greatness and will thus decamp to other genres. So to maintain classical music's current meager popularity, we must encourage more young musicians to enter the field.

Which of the following, if true, most weakens the music critic's reasoning?

- (A) Musicians who choose to study classical music do so because they believe they have an aptitude for the music.
- (B) Classical music's current meager popularity is attributable to the profusion of other genres of music available to listeners.
- (C) Most people who appreciate classical music come to do so through old recordings rather than live performances.
- (D) It is possible to enjoy the music in a particular genre even when it is performed by musicians who are not ideally suited for that genre.
- (E) The continued popularity of a given genre of music depends in part on the audiences being able to understand why that genre attained its original popularity.

CR05656

188. Commemorative plaques cast from brass are a characteristic art form of the Benin culture of West Africa. Some scholars, noting that the oldest surviving plaques date to the 1400s, hypothesize that brass-casting techniques were introduced by the Portuguese, who came to Benin in 1485 A.D. But Portuguese records of that expedition mention cast-brass jewelry sent to Benin's king from neighboring Ife. So it is unlikely that Benin's knowledge of brass casting derived from the Portuguese.

Which of the following, if true, most strengthens the argument?

- (A) The Portuguese records do not indicate whether their expedition of 1485 included metalworkers.
- (B) The Portuguese had no contact with Ife until the 1500s.
- (C) In the 1400s the Portuguese did not use cast brass for commemorative plaques.
- (D) As early as 1500 A.D., Benin artists were making brass plaques incorporating depictions of Europeans.
- (E) Copper, which is required for making brass, can be found throughout Benin territory.

## 4.5 Answer Key

106. C	127. D	148. C	169. B
107. B	128. B	149. D	170. D
108. B	129. B	150. C	171. E
109. A	130. A	151. A	172. D
110. D	131. B	152. C	173. A
111. B	132. A	153. C	174. B
112. A	133. A	154. B	175. A
113. C	134. C	155. B	176. B
114. D	135. C	156. C	177. E
115. A	136. C	157. B	178. B
116. C	137. B	158. D	179. D
117. B	138. C	159. D	180. A
118. A	139. B	160. D	181. D
119. D	140. C	161. D	182. C
120. A	141. C	162. B	183. C
121. C	142. A	163. E	184. E
122. E	143. A	164. B	185. C
123. C	144. A	165. B	186. C
124. B	145. A	166. D	187. C
125. A	146. D	167. B	188. B
126. A	147. D	168. B	

## 4.6 Answer Explanations

The following discussion is intended to familiarize you with the most efficient and effective approaches to critical reasoning questions. The particular questions in this chapter are generally representative of the kinds of critical reasoning questions you will encounter on the GMAT. Remember that it is the problem solving strategy that is important, not the specific details of a particular question.

\*CR14249

106. PhishCo runs a number of farms in the arid province of Nufa, depending largely on irrigation. Now, as part of a plan to efficiently increase the farms' total production, it plans to drill down to an aquifer containing warm, slightly salty water that will be used to raise fish in ponds. The water from the ponds will later be used to supplement piped-in irrigation water for PhishCo's vegetable fields, and the ponds and accompanying vegetation should help reduce the heat in the area of the farms.

Which of the following would, if true, most strongly suggest that the plan, if implemented, would increase the overall efficiency of PhishCo's farms?

- (A) Most of the vegetation to be placed around the ponds is native to Nufa.
- (B) Fish raised on PhishCo's farms are likely to be saleable in the nearest urban areas.
- (C) Organic waste from fish in the pond water will help to fertilize fields where it is used for irrigation.
- (D) The government of Nufa will help to arrange loan financing to partially cover the costs of drilling.
- (E) Ponds will be located on low-lying land now partially occupied by grain crops.

### Evaluation of a Plan

**Situation** A company plans to increase the total efficiency of its farms in an arid region by drilling down to an aquifer whose water will be used to raise fish in ponds and to help irrigate the farms' vegetable fields. The ponds and accompanying vegetation should help reduce the heat around the farms.

**Reasoning** *What would make it most likely that implementing the plan would increase the farms' overall efficiency?* The farms will become more efficient if the plan significantly increases their production for little or no added cost.

- A Vegetation native to an arid region may be no more likely to thrive around ponds than non-native vegetation would be, and in any case would not clearly increase the farms' total crop production or efficiency.
- B This makes it slightly more likely that the plan would increase the farms' profitability, not their efficiency or productivity.
- C **Correct.** Fertilizing the fields with the waste while irrigating the crops might significantly improve crop production. But it would cost little or nothing extra, since the waste would already be in the irrigation water. Thus, this feature of the plan would likely enhance the farms' efficiency by increasing their productivity for no significant extra cost.
- D This government assistance might slightly reduce the work the company has to do to procure a loan. But probably it would neither increase the farms' production nor reduce the overall expense of implementing the plan (including the expense incurred by the government).
- E If anything, this suggests that the plan might reduce the farms' efficiency by eliminating productive crop land.

**The correct answer is C.**

\*These numbers correlate with the online test bank question number. See the GMAT Official Guide Online Index in the back of this book.

CR07612

107. The sustained massive use of pesticides in farming has two effects that are especially pernicious. First, it often kills off the pests' natural enemies in the area. Second, it often unintentionally gives rise to insecticide-resistant pests, since those insects that survive a particular insecticide will be the ones most resistant to it, and they are the ones left to breed.

From the passage above, it can be properly inferred that the effectiveness of the sustained massive use of pesticides can be extended by doing which of the following, assuming that each is a realistic possibility?

- (A) Using only chemically stable insecticides
- (B) Periodically switching the type of insecticide used
- (C) Gradually increasing the quantities of pesticides used
- (D) Leaving a few fields fallow every year
- (E) Breeding higher-yielding varieties of crop plants

#### Evaluation of a Plan

**Situation** Continued high-level pesticide use often kills off the targeted pests' natural enemies. In addition, the pests that survive the application of the pesticide may become resistant to it, and these pesticide-resistant pests will continue breeding.

**Reasoning** *What can be done to prolong the effectiveness of pesticide use?* It can be inferred that the ongoing use of a particular pesticide will not continue to be effective against the future generations of pests with an inherent resistance to that pesticide. What would be effective against these future generations? If farmers periodically change the particular pesticide they use, then pests resistant to one kind of pesticide might be killed by another. This would continue, with pests being killed off in cycles as the pesticides are changed. It is also possible that this rotation might allow some of the pests' natural enemies to survive, at least until the next cycle.

- A Not enough information about chemically stable insecticides is given to make a sound inference.
- B **Correct.** This statement properly identifies an action that could extend the effectiveness of pesticide use.
- C Gradually increasing the amount of the pesticides being used will not help the situation since the pests are already resistant to it.
- D Continued use of pesticides is assumed as part of the argument. Since pesticides would be unnecessary for fallow fields, this suggestion is irrelevant.
- E Breeding higher-yielding varieties of crops does nothing to extend the effectiveness of the use of pesticides.

The correct answer is B.

CR00701

108. Which of the following, if true, most logically completes the argument below?

Manufacturers are now required to make all cigarette lighters child-resistant by equipping them with safety levers. But this change is unlikely to result in a significant reduction in the number of fires caused by children playing with lighters, because children given the opportunity can figure out how to work the safety levers and \_\_\_\_\_.

- (A) the addition of the safety levers has made lighters more expensive than they were before the requirement was instituted
- (B) adults are more likely to leave child-resistant lighters than non-child-resistant lighters in places that are accessible to children
- (C) many of the fires started by young children are quickly detected and extinguished by their parents
- (D) unlike child-resistant lighters, lighters that are not child-resistant can be operated by children as young as two years old
- (E) approximately 5,000 fires per year have been attributed to children playing with lighters before the safety levers were required.

### Argument Construction

**Situation** Manufacturers must equip all cigarette lighters with child-resistant safety levers, but children can figure out how to circumvent the safety levers and thereby often start fires.

**Reasoning** *What point would most logically complete the argument?* What would make it likely that the number of fires caused by children playing with lighters would remain the same? In order for children to start fires using lighters equipped with safety levers, they must be given the opportunity to figure out how the safety levers work and then to use them. They must, that is, have access to the lighters.

- A If safety-lever-equipped lighters are more expensive than lighters that are not so equipped, fewer lighters might be sold. This would most likely afford children less access to lighters, thus giving them less opportunity to start fires with them.
- B **Correct.** This statement properly identifies a point that logically completes the argument: it explains why children are likely to have access to lighters equipped with safety levers.
- C The speed with which fires are extinguished does not have any bearing on the number of fires that are started.
- D This provides a reason to believe that the number of fires started by children will most likely decrease, rather than stay the same: fewer children will be able to operate the lighters, and thus fewer fires are likely to be started.
- E This information about how many fires were started by children before safety levers were required does not have any bearing on the question of how many fires are likely to be started by children now that the safety levers are required.

The correct answer is B.

CR04192

## 109. Which of the following most logically completes the passage?

A business analysis of the Appenian railroad system divided its long-distance passenger routes into two categories: rural routes and interurban routes. The analysis found that, unlike the interurban routes, few rural routes carried a high enough passenger volume to be profitable. Closing unprofitable rural routes, however, will not necessarily enhance the profitability of the whole system, since \_\_\_\_\_.

- (A) a large part of the passenger volume on interurban routes is accounted for by passengers who begin or end their journeys on rural routes
- (B) within the last two decades several of the least used rural routes have been closed and their passenger services have been replaced by buses
- (C) the rural routes were all originally constructed at least one hundred years ago, whereas some of the interurban routes were constructed recently for new high-speed express trains
- (D) not all of Appenia's large cities are equally well served by interurban railroad services
- (E) the greatest passenger volume, relative to the routes' capacity, is not on either category of long-distance routes but is on suburban commuter routes

**Argument Construction**

**Situation** In the Appenian railroad system, interurban routes generally carry enough passengers to be profitable, but few rural routes do.

**Reasoning** *What would suggest that closing unprofitable rural routes would not enhance the railroad system's profitability?* Any evidence that closing the unprofitable rural routes would indirectly reduce the profitability of other components of the railroad system would support the conclusion that closing those rural routes will not enhance the system's profitability. Thus, a statement providing such evidence would logically complete the passage.

- A **Correct.** This suggests that closing the rural routes could discourage many passengers from traveling on the profitable interurban routes as well, thus reducing the profitability of the railroad system as a whole.
- B Even if some of the least used rural routes have already been closed, it remains true that most of the remaining rural routes are too little used to be profitable.
- C Closing very old routes would be at least as likely to enhance the railroad system's profitability as closing newer routes would be.
- D Even if there is better railroad service to some large cities than others, closing unprofitable rural routes could still enhance the system's profitability.
- E Even if suburban routes are the most heavily used and profitable, closing underused, unprofitable rural routes could still enhance the system's profitability.

The correct answer is A.

CR03129

110. Although Ackerburg's subway system is currently operating at a deficit, the transit authority will lower subway fares next year. The authority projects that the lower fares will result in a ten percent increase in the number of subway riders. Since the additional income from the larger ridership will more than offset the decrease due to lower fares, the transit authority actually expects the fare reduction to reduce or eliminate the subway system's operating deficit for next year.

Which of the following, if true, provides the most support for the transit authority's expectation of reducing the subway system's operating deficit?

- (A) Throughout the years that the subway system has operated, fares have never before been reduced.
- (B) The planned fare reduction will not apply to students, who can already ride the subway for a reduced fare.
- (C) Next year, the transit authority will have to undertake several large-scale track maintenance projects.
- (D) The subway system can accommodate a ten percent increase in ridership without increasing the number of trains it runs each day.
- (E) The current subway fares in Ackerburg are higher than subway fares in other cities in the region.

### Argument Evaluation

**Situation** Ackerburg's transit authority plans to lower subway fares, projecting that this will increase ridership by 10 percent and thereby reduce or eliminate the subway system's operating deficit.

**Reasoning** *What evidence would support the expectation that lowering subway fares will reduce the operating deficit?* The passage says the additional income from the projected increase in ridership will more than offset the decrease due to the lowered fares. The claim that lowering fares will reduce the operating deficit could be supported either by additional evidence that lowering the fares will increase ridership at least as much as projected or by evidence that the plan will not increase overall operating expenses.

- A The fact that fares have never been reduced provides no evidence about what would happen if they were reduced.
- B This suggests that the planned fare reduction would not affect revenue from student riders, but it does not suggest how it would affect revenue from all other riders.
- C These maintenance projects will probably increase the operating deficit, making it less likely that the fare reduction will reduce or eliminate that deficit.
- D **Correct.** This indicates that the plan will not involve extra operating expenses for running trains and thus increases the likelihood that the plan will reduce the operating deficit.
- E Ackerburg may differ from other cities in the region in ways that make the higher fares optimal for Ackerburg's subway system.

The correct answer is D.

CR00828

111. Patrick usually provides child care for six children. Parents leave their children at Patrick's house in the morning and pick them up after work. At the end of each workweek, the parents pay Patrick at an hourly rate for the child care provided that week. The weekly income Patrick receives is usually adequate but not always uniform, particularly in the winter, when children are likely to get sick and be unpredictably absent.

Which of the following plans, if put into effect, has the best prospect of making Patrick's weekly income both uniform and adequate?

- (A) Pool resources with a neighbor who provides child care under similar arrangements, so that the two of them cooperate in caring for twice as many children as Patrick currently does.
- (B) Replace payment by actual hours of child care provided with a fixed weekly fee based upon the number of hours of child care that Patrick would typically be expected to provide.
- (C) Hire a full-time helper and invest in facilities for providing child care to sick children.
- (D) Increase the hourly rate to a level that would provide adequate income even in a week when half of the children Patrick usually cares for are absent.
- (E) Increase the number of hours made available for child care each day, so that parents can leave their children in Patrick's care for a longer period each day at the current hourly rate.

### Evaluation of a Plan

**Situation** At the end of the workweek, Patrick is paid a certain amount for each hour of child care he has provided. Patrick usually receives adequate weekly income under this arrangement, but in the winter Patrick's income fluctuates, because children are unpredictably absent due to illness.

**Reasoning** *Which plan would be most likely to meet the two goals of uniform weekly income and adequate weekly income?* Patrick must find a way to ensure that his weekly income is both adequate—that is, not reduced significantly from current levels—and uniform—that is, not subject to seasonal or other fluctuations. A successful plan would thus most likely be one that does not increase Patrick's costs. Further, the plan need not increase Patrick's weekly income; it must merely ensure that that income is more reliable. It should therefore also provide some way to mitigate the unexpected loss of income from children's absences.

- A This plan might raise Patrick's income slightly, because he and the neighbor might pay out less in costs if they pool their resources. But this plan would have no effect on the problem that unpredictable absences pose for Patrick's weekly income.
- B **Correct.** This statement properly identifies a plan that would most likely keep Patrick's income adequate (he would probably receive approximately the same amount of money per child as he does now) and uniform (he would receive the money regardless of whether a child was present or absent).
- C While this plan might somewhat mitigate the unpredictability in Patrick's income that results from sick children's absences—because parents would be less likely to keep sick children at home—it would increase Patrick's costs. Paying a helper and investing in different facilities would reduce Patrick's income and might thus result in that income being inadequate.
- D Under this plan, if we assume that parents did not balk at the increase in Patrick's hourly rate and find alternative child care, Patrick's income would most likely be adequate. But this plan would not help make Patrick's weekly income uniform. His income would continue to fluctuate when children are absent. Remember, there are two goals with regard to Patrick's income: adequacy and uniformity.
- E This plan might increase Patrick's income, in that he might be paid for more hours of child care each week. The goals here, however, are to make Patrick's weekly income both adequate and uniform, and this plan does not address the issue of uniformity.

The correct answer is B.

CR10639

112. Editorial: Consumers in North America think that by drinking frozen concentrated orange juice, they are saving energy, because it takes fewer truckloads to transport it than it takes to transport an equivalent amount of not-from-concentrate juice. But they are mistaken, for the amount of energy required to concentrate the juice is far greater than the energy difference in the juices' transport.

Which of the following, if true, would provide the greatest additional support for the editorial's conclusion?

- (A) Freezer trucks use substantially more energy per mile driven than do any other types of trucks.
- (B) Frozen juice can be stored for several years, while not-from-concentrate juice lasts a much shorter time.
- (C) Oranges grown in Brazil make up an increasing percentage of the fruit used in not-from-concentrate juice production.
- (D) A serving of not-from-concentrate juice takes up to six times more space than a serving of frozen concentrated juice.
- (E) Though frozen concentrated juice must be kept at a lower temperature, not-from-concentrate juice is far more sensitive to small temperature fluctuations.

### Argument Evaluation

**Situation** North American consumers think that drinking frozen concentrated orange juice saves energy because the concentrated juice can be transported in fewer truckloads than an equivalent amount of not-from-concentrate juice. But more energy is required to concentrate the juice than is saved by this reduction in the number of truckloads used for transportation.

**Reasoning** *What additional evidence would most help to support the conclusion that drinking frozen concentrated orange juice rather than not-from-concentrate juice does not save energy?* Factors other than the concentration process and the number of truckloads used for transportation may also affect the amounts of energy used to provide the two types of juice. Evidence of any such factor that increases the amount of energy needed to provide frozen concentrated juice more than it increases the amount needed to provide the same amount of not-from-concentrate juice would help to support the editorial's conclusion.

- A **Correct.** This suggests that it takes much more energy per truckload to transport frozen concentrated juice than to transport not-from-concentrate juice, which is not frozen.
- B If anything, this suggests that a higher proportion of not-from-concentrate juice goes bad and is discarded rather than being drunk. This waste would increase the amount of energy used to provide each glass of not-from-concentrate juice that is drunk.
- C Since Brazil is far from North America, this suggests that the average amount of energy used to transport each serving of not-from-concentrate juice may be increasing.
- D Since both types of juice must be kept cold until ready to drink, this suggests that a much larger amount of space must be refrigerated to provide each serving of not-from-concentrate juice. That may mean that more energy needs to be used to keep each serving of not-from-concentrate juice cold.
- E It may take extra energy to keep the temperature of not-from-concentrate juice more constant. If it does, that would increase the amount of energy used to provide each serving of not-from-concentrate juice.

The correct answer is A.

CR07618

113. A computer equipped with signature-recognition software, which restricts access to a computer to those people whose signatures are on file, identifies a person's signature by analyzing not only the form of the signature but also such characteristics as pen pressure and signing speed. Even the most adept forgers cannot duplicate all of the characteristics the program analyzes.

Which of the following can be logically concluded from the passage above?

- (A) The time it takes to record and analyze a signature makes the software impractical for everyday use.
- (B) Computers equipped with the software will soon be installed in most banks.
- (C) Nobody can gain access to a computer equipped with the software solely by virtue of skill at forging signatures.
- (D) Signature-recognition software has taken many years to develop and perfect.
- (E) In many cases even authorized users are denied legitimate access to computers equipped with the software.

#### Argument Construction

**Situation** Forgers cannot duplicate all the characteristics that signature-recognition software analyzes, including the form of a signature, pen pressure, and signing speed. Computers equipped with this software restrict access to those whose signatures are on file.

**Reasoning** *What conclusion can be reached about computers equipped with this software?* The passage states that the software detects more characteristics in a signature than the most accomplished forger can possibly reproduce. Thus, skill at forging signatures is not enough to allow someone to gain access to a computer equipped with the software.

- A No information about the speed of the analysis is given, so no such conclusion can be drawn.
- B Although the software would likely be of benefit to banks, we cannot conclude that it will be installed in most banks because the passage doesn't rule out, e.g., that the software may be too costly or that there may be proprietary constraints.
- C **Correct.** This statement properly identifies a conclusion that can be drawn from the passage.
- D Although it seems reasonable to think that the software took a long time to develop, nothing in the passage justifies the claim that it took years.
- E Nothing in the passage rules out the possibility that the software functions so well that authorized users will never be denied legitimate access to computers equipped with the software.

The correct answer is C.

CR02958

114. The rate at which a road wears depends on various factors, including climate, amount of traffic, and the size and weight of the vehicles using it. The only land transportation to Rittland's seaport is via a divided highway, one side carrying traffic to the seaport and one carrying traffic away from it. The side leading to the seaport has worn faster, even though each side has carried virtually the same amount of traffic, consisting mainly of large trucks.

Which of the following, if true, most helps to explain the difference in the rate of wear?

- (A) The volume of traffic to and from Rittland's seaport has increased beyond the intended capacity of the highway that serves it.
- (B) Wear on the highway that serves Rittland's seaport is considerably greater during the cold winter months.
- (C) Wear on the side of the highway that leads to Rittland's seaport has encouraged people to take buses to the seaport rather than driving there in their own automobiles.
- (D) A greater tonnage of goods is exported from Rittland's seaport than is imported through it.
- (E) All of Rittland's automobiles are imported by ship.

### Argument Construction

**Situation** The side of a divided highway leading to a seaport has worn faster than the side leading away from the seaport. Both sides carry roughly the same amount of traffic, mainly consisting of large trucks.

**Reasoning** *What could explain why the side of the highway leading to the seaport has worn faster than the other side?*  
 We are told that climate, amount of traffic, and the size and weight of vehicles on a road affect how quickly the road wears. We are also told that the amounts of traffic on the two sides of the highway are almost identical. Probably the climate on the two sides is also almost identical. Thus, the most likely explanation for the different rates of wear is that the size or weight of the vehicles driving on the two sides differs significantly. So any factor that would make the vehicles' size or weight greater on the side leading to the seaport than on the other side could help explain the difference in wearing.

- A The increased traffic volume affects both sides of the highway, so it does not help explain why one side is wearing faster than the other.
- B The winter weather affects both sides of the highway, so it does not help explain why one side is wearing faster than the other.
- C The buses may contribute to wear on the side of the highway leading to the seaport, but not necessarily more than the car traffic they are replacing would (though the increased use of buses instead of cars may decrease the amount of traffic, buses would be heavier than cars and thus may result in an equal or greater amount of wear). Furthermore, the buses have to come back on the other side, probably carrying the returning travelers who have not left their cars at the airport.
- D **Correct.** This suggests that the many trucks visiting the seaport tend to be more heavily laden with goods when traveling on the side of the highway leading to the seaport than when returning on the other side. The resulting difference in the trucks' weight when traveling on the two sides could explain the different rates of wear.
- E These automobiles would be transported along the side of the highway leading from the seaport, but not along the side leading to it. This would likely create a pattern of wear opposite to the one observed.

**The correct answer is D.**

CR04073

115. In parts of South America, vitamin-A deficiency is a serious health problem, especially among children. In one region, agriculturists are attempting to improve nutrition by encouraging farmers to plant a new variety of sweet potato called SPK004 that is rich in beta-carotene, which the body converts into vitamin A. The plan has good chances of success, since sweet potato is a staple of the region's diet and agriculture, and the varieties currently grown contain little beta-carotene.

Which of the following, if true, most strongly supports the prediction that the plan will succeed?

- (A) The growing conditions required by the varieties of sweet potato currently cultivated in the region are conditions in which SPK004 can flourish.
- (B) The flesh of SPK004 differs from that of the currently cultivated sweet potatoes in color and texture, so traditional foods would look somewhat different when prepared from SPK004.
- (C) There are no other varieties of sweet potato that are significantly richer in beta-carotene than SPK004 is.
- (D) The varieties of sweet potato currently cultivated in the region contain some important nutrients that are lacking in SPK004.
- (E) There are other vegetables currently grown in the region that contain more beta-carotene than the currently cultivated varieties of sweet potato do.

### Evaluation of a Plan

**Situation** Agriculturists believe that if farmers in a particular South American region plant a new beta-carotene-rich variety of sweet potato, SPK004, the vitamin-A deficiency suffered in that region can be alleviated. Even though sweet potatoes are a staple of the region and the body can convert a sweet potato's beta-carotene into vitamin A, the varieties currently grown there contain little beta-carotene.

**Reasoning** *What would most support the success of the plan to improve nutrition by encouraging farmers to plant SPK004? What, that is, would make farmers respond positively to encouragement to plant SPK004? Farmers in the region would probably be inclined to substitute SPK004 for the varieties of sweet potato they currently grow if they could be assured that SPK004 would grow as well as those other varieties do. This would in turn most likely lead to SPK004 being substituted for current varieties of sweet potato in staple dishes, and thus to an improvement in nutrition in the region.*

- A **Correct.** This statement properly identifies a factor that would support a prediction of the plan's success.
- B If dishes made with SPK004 look different than traditional sweet potato dishes in the region do, people might be less likely to eat those dishes; in such a situation, the plan's success would be less likely, rather than more likely.
- C It is SPK004's beta-carotene content relative to the beta-carotene content of the sweet potatoes currently grown in the region that is relevant here, so it does not matter if there are other varieties of sweet potato that are richer in beta-carotene than SPK004 is.
- D This suggests that switching from currently grown sweet potatoes to SPK004 could negatively affect nutrition in the region; this undermines, rather than supports, the prediction that the plan to improve nutrition will succeed.
- E These other vegetables, despite their beta-carotene content being higher than that of the currently cultivated varieties of sweet potato, are clearly not sufficient to prevent a vitamin-A deficiency in the region. This information does nothing to support the prediction that encouraging farmers to plant SPK004 will help to meet those beta-carotene needs.

The correct answer is A.

CR06018

## 116. Which of the following most logically completes the argument?

The last members of a now-extinct species of a European wild deer called the giant deer lived in Ireland about 16,000 years ago. Prehistoric cave paintings in France depict this animal as having a large hump on its back. Fossils of this animal, however, do not show any hump. Nevertheless, there is no reason to conclude that the cave paintings are therefore inaccurate in this regard, since \_\_\_\_\_.

- (A) some prehistoric cave paintings in France also depict other animals as having a hump
- (B) fossils of the giant deer are much more common in Ireland than in France
- (C) animal humps are composed of fatty tissue, which does not fossilize
- (D) the cave paintings of the giant deer were painted well before 16,000 years ago
- (E) only one currently existing species of deer has any anatomical feature that even remotely resembles a hump

**Argument Construction**

**Situation** Representations found in prehistoric cave paintings in France of the now-extinct giant deer species—the last members of which lived in Ireland about 16,000 years ago—depict the deer as having a hump on its back. Fossils of the deer, however, do not feature a hump.

**Reasoning** *What point would most logically complete the argument? That is, what would show that the cave paintings are not inaccurate even though fossils of the giant deer show no hump? How could it be the case that the paintings show a hump while the fossils do not? One way in which this could be so is if the humps are not part of the fossils—that is, if there is some reason why a hump would not be preserved with the rest of an animal’s remains.*

- A We do not know whether these other cave paintings accurately depict the animals as having humps, so this provides no reason to think that the depictions of giant deer are accurate.
- B Where giant deer fossils are found has no bearing on whether cave paintings of giant deer that show a hump on the animal’s back are inaccurate. It could be that this suggests that the painters responsible for the representations would not be very familiar with the species; if this were so, it would give some reason to conclude that the representations *were* inaccurate.
- C **Correct.** This statement properly identifies a point that logically completes the argument. A hump would not be found as part of a giant deer’s fossilized remains if the humps were fatty tissue that would not be fossilized.
- D That the cave paintings were painted well before 16,000 years ago shows that they were executed before the giant deer became extinct, but this does not help to explain the discrepancy between the paintings’ depiction of a hump on the deer’s back and the fossil record’s lack of such a hump. It could be that even though the cave painters coexisted with the giant deer, they were not sufficiently familiar with them to depict them accurately.
- E That currently existing species of deer lack humps, or even that one species does have a feature resembling a hump, has little bearing on whether cave paintings in France accurately depict the giant deer as having a hump.

**The correct answer is C.**

CR04738

117. Cocoa grown organically on trees within the shade of the rain forest canopy commands a premium price. However, acquiring and maintaining the certification that allows the crop to be sold as organically grown is very time-consuming and laborious. Meanwhile, the price premium for the grower is about 30 percent, whereas cocoa trees grown in full sun using standard techniques can have twice the yield of organic, shade-grown trees. Financially, therefore, standard techniques are the better choice for the farmer.

Which of the following, if true, most seriously weakens the argument?

- (A) Cocoa can be grown only in a climate that has the temperature and moisture characteristics of a tropical rain forest.
- (B) Cocoa trees grown using standard techniques require costly applications of fertilizer and pesticides, unlike shade-grown trees.
- (C) Although organically grown cocoa has long commanded a price premium over cocoa grown using standard techniques, its price has fluctuated considerably during that period.
- (D) Cocoa is not the only cash crop that can be raised on plots that leave the rain forest canopy overhead essentially intact.
- (E) Governments and international conservation organizations are working to streamline organic certification so as to relieve farmers of unnecessary work.

### Argument Evaluation

**Situation** Cocoa grown organically under the rain forest canopy can obtain a price premium of 30 percent for the grower. But the certification needed for the cocoa to be sold as organic is time-consuming and laborious. Since cocoa grown in full sun by standard (non-organic) techniques can have twice the yield, it is concluded that standard techniques are better financially for the farmer.

**Reasoning** Among the pieces of information presented, which one, assuming it is accurate, would most weaken the argument if added to the given information? Specific information about the costs associated with growing cocoa using standard techniques is lacking in the given information. For example, does use of the “standard techniques” entail lower or higher costs than use of organic techniques? If we had information that the costs are much higher, such information would tend to weaken the argument—unless we also knew that the much higher yields more than compensate for the much higher costs. If we had information that consumers are becoming increasingly concerned about chemical residues in cocoa, that information would also tend to weaken the argument.

- A If this is true, then the cocoa grown both in rain forest shade and in full sun satisfies the climate requirement.
- B **Correct.** This tells us that use of chemical pesticides and fertilizers entails very high costs for growers; moreover, such use of chemicals risks making the cocoa less attractive to consumers, ultimately impacting the grower’s financial benefits.
- C If this were true only of the organic cocoa described in the given information, then it would tend to reinforce the argument rather than weaken it. If it were true of both kinds of cocoa, then it would neither strengthen nor weaken the argument.
- D This information has no obvious bearing on the question asked.
- E This information suggests that costs associated with growing organic cocoa may eventually decrease and the profits increase. But this does not weaken the argument as given, since its conclusion concerns what growing techniques are currently best for farmers.

The correct answer is B.

CR07547

118. High levels of fertilizer and pesticides, needed when farmers try to produce high yields of the same crop year after year, pollute water supplies. Experts therefore urge farmers to diversify their crops and to rotate their plantings yearly. To receive governmental price-support benefits for a crop, farmers must have produced that same crop for the past several years.

The statements above, if true, best support which of the following conclusions?

- (A) The rules for governmental support of farm prices work against efforts to reduce water pollution.
- (B) The only solution to the problem of water pollution from fertilizers and pesticides is to take farmland out of production.
- (C) Farmers can continue to make a profit by rotating diverse crops, thus reducing costs for chemicals, but not by planting the same crop each year.
- (D) New farming techniques will be developed to make it possible for farmers to reduce the application of fertilizers and pesticides.
- (E) Governmental price supports for farm products are set at levels that are not high enough to allow farmers to get out of debt.

### Argument Construction

**Situation** Farmers are urged to rotate crops annually because the chemicals they must use when continuing to produce the same crops pollute water supplies. On the other hand, farmers may receive federal price-support benefits only if they have been producing the same crop for the past several years.

**Reasoning** *What conclusion can be drawn from this information?* Farmers wish to receive the price-support benefits offered by the government, so they grow the same crop for several years. In order to continue getting good yields, they use the high levels of chemicals necessary when the same crop is grown from year to year. The result is water pollution. The government's rules for price-support benefits work against the efforts to reduce water pollution.

- A **Correct.** This statement properly identifies the conclusion supported by the evidence.
- B The experts cited in the passage believe that the rotation of crops is the solution, not the removal of farmland from production.
- C The conclusion that farmers cannot make a profit by producing the same crop year after year is not justified by the information given in the premises. The information given suggests that this conclusion would actually be false, since these farmers would benefit by price-support measures for such a crop.
- D No information in the passage supports a conclusion about farming techniques other than crop diversification and rotation, which are clearly existing farming techniques and not new or yet to be developed.
- E This conclusion is unwarranted because there is no information in the two statements about the levels of the price supports and of the farmers' debts.

**The correct answer is A.**

CR02270

119. Ten years ago the number of taxpayers in Greenspace County was slightly greater than the number of registered voters. The number of taxpayers has doubled over the last ten years, while the number of registered voters has increased, but at a lower rate than has the number of taxpayers.

Which of the following must be true in Greenspace County if the statements above are true?

- (A) The number of taxpayers is now smaller than the number of registered voters.
- (B) Everyone who is a registered voter is also a taxpayer.
- (C) The proportion of registered voters to taxpayers has increased over the last ten years.
- (D) The proportion of registered voters to taxpayers has decreased over the last ten years.
- (E) The proportion of registered voters to taxpayers has remained unchanged over the last ten years.

### Argument Evaluation

**Situation** Ten years ago a county had slightly more taxpayers than registered voters. Since then the number of taxpayers has doubled, while the number of registered voters has increased less.

**Reasoning** *What can be deduced from the information about the changing numbers of taxpayers and registered voters?* There were already slightly more taxpayers than registered voters ten years ago, but since then the number of taxpayers has increased more than proportionately to the number of registered voters. It follows that there must still be more taxpayers than registered voters, that the absolute number of taxpayers must have increased more than the absolute number of registered voters has, and that the ratio of taxpayers to registered voters must have increased.

- A Since there were already more taxpayers than registered voters ten years ago, and since the number of taxpayers has increased more than the number of registered voters, there must still be more taxpayers than registered voters.
- B Although there are more taxpayers than registered voters overall, there could still be many individual registered voters who are not taxpayers.
- C Since the number of taxpayers has doubled while the number of registered voters has less than doubled, the proportion of registered voters to taxpayers must have decreased, not increased as this option claims.
- D **Correct.** Since the number of taxpayers has doubled while the number of registered voters has less than doubled, the proportion of registered voters to taxpayers must have decreased.
- E Since the number of taxpayers has doubled while the number of registered voters has less than doubled, the proportion of registered voters to taxpayers must have decreased, not remained unchanged.

The correct answer is D.

CR01298

120. From 1900 until the 1930s, pellagra, a disease later discovered to result from a deficiency of the vitamin niacin, was common among poor cotton farmers in the United States whose diet consisted mostly of corn, the least costly food they could buy. Corn does not contain niacin in usable form. Curiously, during the Depression of the early 1930s, when cotton's price collapsed and cotton farmers' income declined, the incidence of pellagra among those farmers also declined. Which of the following, if true, most helps to explain the decline in the incidence of pellagra?
- (A) When growing a cash crop could not generate adequate income, poor farmers in the United States responded by planting their land with vegetables and fruits for their own consumption.
- (B) People whose diets consist largely of corn often suffer from protein deficiency as well as niacin deficiency.
- (C) Until the discovery of pellagra's link with niacin, it was widely believed that the disease was an infection that could be transmitted from person to person.
- (D) Effective treatment for pellagra became available once its link with niacin was established.
- (E) In parts of Mexico, where people subsisted on corn but pellagra was uncommon, corn was typically processed with alkaline substances, which make the niacin in the corn absorbable.

### Argument Construction

**Situation** The disease pellagra, which is due to a deficiency of the nutrient niacin, was common among poor cotton farmers in the United States during the early part of the 20th century, until the early 1930s. The diet of these farmers consisted mostly of the inexpensive grain corn, which lacked niacin in a form that can be absorbed by the body. However, when the cotton price collapsed during the Great Depression in the early 1930s, the incidence of pellagra decreased among these farmers.

**Reasoning** *What might explain the decline in incidence of pellagra among the cotton farmers during the Great Depression, despite the likelihood that the farmers would have experienced an increase in poverty?* It may seem “curious” that a disease associated with malnutrition and poverty would become less common during a severe economic downturn. Our task is to find something that would explain this curious fact.

- A **Correct.** The passage suggests that the pellagra of the farmers was due to their diet of mostly corn, which they purchased. However, this option indicates that, during the time that the farmers grew much of their own food during the Great Depression, the diet of the farmers changed significantly and had greater variety. This point, together with the fact that pellagra among the farmers decreased during this time, suggests that the decrease in pellagra among the farmers was due to their growing their own food.
- B Although this option mentions another aspect of nutritional deficiency due to narrowness of diet, the question to be addressed is about nutritional deficiency of niacin rather than of protein.
- C The belief that pellagra was an infection transmitted from person to person would not explain why the incidence of pellagra decreased among the farmers during the Great Depression.
- D This option might explain the decrease in incidence of pellagra among the farmers if it was true that the link of pellagra with niacin deficiency was discovered before the decrease in incidence of pellagra among the farmers. Given the information provided, we don't know whether or not this is true.
- E This option might help to explain the decline in pellagra if it was the case that the cotton farmers started to eat corn that had been processed in the manner of the people in parts of Mexico. However, we have not been given a reason to suppose that the farmers ate corn that had been processed in this way.

The correct answer is A.

CR07589

121. The interview is an essential part of a successful hiring program because, with it, job applicants who have personalities that are unsuited to the requirements of the job will be eliminated from consideration.

The argument above logically depends on which of the following assumptions?

- (A) A hiring program will be successful if it includes interviews.
- (B) The interview is a more important part of a successful hiring program than is the development of a job description.
- (C) Interviewers can accurately identify applicants whose personalities are unsuited to the requirements of the job.
- (D) The only purpose of an interview is to evaluate whether job applicants' personalities are suited to the requirements of the job.
- (E) The fit of job applicants' personalities to the requirements of the job was once the most important factor in making hiring decisions.

### Argument Construction

**Situation** The interview is a necessary part of hiring because candidates with unsuitable personalities are eliminated from consideration.

**Reasoning** *What is being assumed in this argument?* The argument puts forth one reason that the interview is important: it eliminates candidates with unsuitable personalities. This presupposes that interviewers can, with a fair degree of accuracy, rule out those candidates whose personalities do not fit the needs of the job.

- A The argument does not go so far as to say that interviews guarantee a successful hiring program.
- B The argument does not prioritize the parts of a hiring program.
- C **Correct.** This statement properly identifies the assumption underlying the argument.
- D The argument gives one reason that the interview is important, but it does not say it is the *only* reason.
- E This concerns past practices in hiring, and is irrelevant to the argument.

The correct answer is C.

CR07785

122. Many leadership theories have provided evidence that leaders affect group success rather than the success of particular individuals. So it is irrelevant to analyze the effects of supervisor traits on the attitudes of individuals whom they supervise. Instead, assessment of leadership effectiveness should occur only at the group level.

Which of the following would it be most useful to establish in order to evaluate the argument?

- (A) Whether supervisors' documentation of individual supervisees' attitudes toward them is usually accurate
- (B) Whether it is possible to assess individual supervisees' attitudes toward their supervisors without thereby changing those attitudes
- (C) Whether any of the leadership theories in question hold that leaders should assess other leaders' attitudes
- (D) Whether some types of groups do not need supervision in order to be successful in their endeavors
- (E) Whether individuals' attitudes toward supervisors affect group success

### Argument Evaluation

**Situation** Many leadership theories have provided evidence that leaders affect the success of groups but not of individuals.

**Reasoning** *What would be most helpful to know in order to evaluate how well the stated fact supports the conclusion that leadership effectiveness should be assessed only at the group level without considering supervisors' influence on the attitudes of the individuals they supervise? Even if leaders do not affect the success of the individuals they lead, they might still affect those individuals' attitudes. And those attitudes in turn might affect group success. If so, the argument would be weak. So any evidence about the existence or strength of these possible effects in the relationship between supervisors and their supervisees would be helpful in evaluating the argument.*

- A How accurately supervisors document their supervisees' attitudes is not clearly relevant to how much the supervisors affect those attitudes, nor to how much the attitudes affect group success.
- B Even if assessing supervisees' attitudes would in itself change those attitudes, the person doing the assessment might be able to predict this change and take it into account. Thus, considering individual supervisees' attitudes might still be worthwhile.
- C The argument is not about interactions among leaders, but rather about interactions between supervisors and supervisees.
- D The argument is not about groups without supervisors, or whether certain groups might be effective without a supervisor, but rather about how to assess the effectiveness of supervisors in groups that do have them.
- E **Correct.** As explained above, if individual supervisees' attitudes affect group success, the argument would be weak. And probably individual supervisees' attitudes toward their supervisors are influenced by those supervisors. So knowing whether individual attitudes toward supervisors affect group success would be helpful in evaluating the argument

The correct answer is E.

CR03535

123. A major health insurance company in Lagolia pays for special procedures prescribed by physicians only if the procedure is first approved as “medically necessary” by a company-appointed review panel. The rule is intended to save the company the money it might otherwise spend on medically unnecessary procedures. The company has recently announced that in order to reduce its costs, it will abandon this rule.

Which of the following, if true, provides the strongest justification for the company’s decision?

- (A) Patients often register dissatisfaction with physicians who prescribe nothing for their ailments.
- (B) Physicians often prescribe special procedures that are helpful but not altogether necessary for the health of the patient.
- (C) The review process is expensive and practically always results in approval of the prescribed procedure.
- (D) The company’s review process does not interfere with the prerogative of physicians, in cases where more than one effective procedure is available, to select the one they personally prefer.
- (E) The number of members of the company-appointed review panel who review a given procedure depends on the cost of the procedure.

### Evaluation of a Plan

**Situation** In order to cut costs, a major health insurance company is abandoning a rule stating that it will pay for special procedures only if the procedure is approved as medically necessary by a review panel.

**Reasoning** *What piece of information would most help to justify the company’s decision?* For the company to save money, it would need to be in some way cutting its costs by abandoning the rule. Under what circumstances might the rule cost, rather than save, the company money? The panel itself might be expensive to convene, for example. Further, the cost savings achieved by the panel might be minimal if the panel did not deny significant numbers of procedures.

- A This suggests that patients might be pressuring their physicians to prescribe certain unnecessary procedures for their ailments, which in turn suggests that the panel is reviewing these procedures and denying them. But if so, then the panel is probably saving the insurance company money, so abandoning the panel’s review would not reduce the company’s costs.
- B This suggests that certain procedures that are being prescribed by physicians are not medically necessary, which in turn suggests that the panel reviewing these procedures may be denying them. If this is the case, then the panel is probably saving the insurance company a significant amount of money, so abandoning the panel’s review may well increase rather than decrease the company’s costs.
- C **Correct.** This statement properly identifies information that would help to justify the company’s decision.
- D Even if the panel does not interfere with physicians’ choices when more than one medically effective procedure is available, the panel may still be denying pay for many procedures that are not medically necessary. In such cases the panel may be saving the insurance company money, and abandoning the review process would not reduce the company’s costs.
- E This suggests that the more expensive the procedure under review, the more expensive the panel itself is. Even so, if the panel denies payment for very expensive procedures, it may nonetheless save the company significantly more than the company has to pay to convene the panel, so abandoning the review process would not reduce the company’s costs.

The correct answer is C.

CR03826

24. Automobile ownership was rare in Sabresia as recently as 30 years ago, but with continuing growth of personal income there, automobile ownership has become steadily more common. Consequently, there are now far more automobiles on Sabresia's roads than there were 30 years ago, and the annual number of automobile accidents has increased significantly. Yet the annual number of deaths and injuries resulting from automobile accidents has not increased significantly.

Which of the following, if true, most helps to explain why deaths and injuries resulting from automobile accidents have not increased significantly?

- (A) Virtually all of the improvements in Sabresia's roads that were required to accommodate increased traffic were completed more than ten years ago.
- (B) With more and more people owning cars, the average number of passengers in a car on the road has dropped dramatically.
- (C) The increases in traffic volume have been most dramatic on Sabresia's highways, where speeds are well above those of other roads.
- (D) Because of a vigorous market in used cars, the average age of cars on the road has actually increased throughout the years of steady growth in automobile ownership.
- (E) Automobile ownership is still much less common in Sabresia than it is in other countries.

### Argument Construction

**Situation** Many more cars are on Sabresia's roads than 30 years ago; and there are also many more car accidents. Yet the annual number of deaths and injuries resulting from car accidents has not increased much, which is quite puzzling.

**Reasoning** *What factor could help explain the puzzling fact that the increase in car accidents was not reflected in a similar increase in deaths and injuries from car accidents?* One (but perhaps unlikely) possibility is that a significantly greater proportion of the recent annual number of car accidents consisted of merely minor accidents, unlike 30 years ago. Another possibility is that cars are currently much better engineered for driver and passenger safety than 30 years ago. Yet a third possibility is that the total number of people traveling by car—passengers and drivers—has not increased significantly despite the large increase in the number of cars. This would mean that the average occupancy of a car has greatly decreased; so, even though the number of car accidents has significantly increased, the average number of people per car involved in an accident would have decreased significantly. On average, this would mean significantly fewer deaths and injuries per accident.

- A This throws little light on the central puzzle: why the current number of car accidents is significantly higher than 30 years ago, while the number of deaths and injuries in car accidents is not. The fact that there has been a significant increase in car accidents suggests that the roads were not made as safe as they could have been, and this just deepens the puzzle about the lack of a significant increase in deaths and injuries.
- B **Correct.** This implies that the average number of passengers per car accident is significantly less, and this helps explain why the total number of deaths and injuries has not increased significantly.
- C This information does not help explain the mismatch between increased accident numbers and relatively stable death-and-injury numbers. High-speed car accidents would likely have caused more fatalities, on average, than other car accidents; so, given that the increase in traffic volume has been greatest on Sabresia's high-speed roads, one would expect a significant increase in the number of accidents, and consequently in the number of deaths and injuries. But this expectation has not been fulfilled.