

### 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 what is [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
- (10) 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
- (15) 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
- (20) 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
- (25) designers, teachers, and stewards, roles requiring 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
- (30) employees are continually learning new skills and expanding their capabilities to shape their future.

**Questions 1–4 refer to the passage.**

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
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
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.
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 (5) 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.

- (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
- (15) 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
- (20) 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
- (25) 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
- (30) 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.
- (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.**

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
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
7. It can be inferred from the passage that even when there are unemployed workers, labor shortages are still likely to occur if
  - A. the inflation rate is unusually high
  - B. there is insufficient technological innovation
  - C. the level of structural unemployment is exceptionally low
  - D. the jobs available in certain places require skills that the labor force in those areas lacks
  - E. the workers in some industries are dissatisfied with the pay offered in those industries
8. The passage suggests that the phenomenon of combined unemployment and inflation is
  - A. a socioeconomic problem that can only be addressed by government intervention

- B. a socioeconomic problem that can be characteristic of periods of structural unemployment
  - C. an economic problem that results from government intervention in management-labor relations
  - D. an economic problem that results from imperfect applications of technology
  - E. an economic problem that can be eliminated by relatively small changes in the labor force
9. The passage is primarily concerned with
- A. clarifying the definition of a concept
  - B. proposing a way to eliminate an undesirable condition
  - C. discussing the sources and consequences of a problem
  - D. suggesting ways to alleviate the effects of a particular social policy
  - E. evaluating the steps that have been taken to correct an imbalance
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
- Line    The Gross Domestic Product (GDP), which  
measures the dollar value of finished goods and  
services produced by an economy during a given  
period, serves as the chief indicator of the  
(5)    economic well-being of the United States. The GDP  
assumes that the economic significance of goods

- and services lies solely in their price, and that these goods and services add to the national well-being, not because of any intrinsic value they may
- (10) possess, but simply because they were produced and bought. Additionally, only those goods and services involved in monetary transactions are included in the GDP. Thus, the GDP ignores the economic utility of such things as a clean
- (15) environment and cohesive families and communities. It is therefore not merely coincidental, since national policies in capitalist and noncapitalist countries alike are dependent on indicators such as the GDP, that both the environment and the social
- (20) structure have been eroded in recent decades. Not only does the GDP mask this erosion, it can actually portray it as an economic gain: an oil spill off a coastal region “adds” to the GDP because it generates commercial activity. In short, the nation’s
- (25) central measure of economic well-being works like a calculating machine that adds but cannot subtract.

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

11. The primary purpose of the passage is to
- A. identify ways in which the GDP could be modified so that it would serve as a more accurate indicator of the economic well-being of the United States
  - B. suggest that the GDP, in spite of certain shortcomings, is still the most reliable indicator of the economic well-being of the United States
  - C. examine crucial shortcomings of the GDP as an indicator of the economic well-being of the United States
  - D. argue that the growth of the United States economy in recent decades has diminished the effectiveness of the GDP as an indicator of the nation’s economic well-being
  - E. discuss how the GDP came to be used as the primary indicator of the economic well-being of the United States

12. Which of the following best describes the function of the second sentence of the passage in the context of the passage as a whole?
- A. It describes an assumption about the GDP that is defended in the course of the passage.
  - B. It contributes to a discussion of the origins of the GDP.
  - C. It clarifies a common misconception about the use of the GDP.
  - D. It identifies a major flaw in the GDP.
  - E. It suggests a revision to the method of calculating the GDP.
13. It can be inferred that the author of the passage would agree with which of the following about the “economic significance” of those goods and services that are included in the GDP?
- A. It is a comprehensive indicator of a nation’s economic well-being.
  - B. It is not accurately captured by the price of those goods and services.
  - C. It is usually less than the intrinsic value of those goods and services.
  - D. It is more difficult to calculate than the economic significance of those goods and services that are not included in the GDP.
  - E. It is calculated differently in capitalist countries than in noncapitalist countries.
14. The comparison of the GDP to a calculating machine serves to do which of the following?
- A. Refute an assertion that the calculations involved in the GDP are relatively complex in nature
  - B. Indicate that the GDP is better suited to record certain types of monetary transactions than others
  - C. Suggest that it is likely that the GDP will be supplanted by other, more sophisticated economic indicators
  - D. Illustrate the point that the GDP has no way of measuring



the destructive impact of such things as oil spills on the nation's economic well-being

- E. Exemplify an assertion that the GDP tends to exaggerate the amount of commercial activity generated by such things as oil spills
15. The passage implies that national policies that rely heavily on economic indicators such as the GDP tend to
- A. become increasingly capitalistic in nature
  - B. disregard the economic importance of environmental and social factors that do not involve monetary transactions
  - C. overestimate the amount of commercial activity generated by environmental disasters
  - D. overestimate the economic significance of cohesive families and communities
  - E. assume that the economic significance of goods and services does not lie solely in the price of those goods and services
16. It can be inferred that the author of the passage would agree with which of the following assessments of the GDP as an indicator of the economic well-being of the United States?
- A. It masks social and environmental erosion more fully than the chief economic indicators of other nations.
  - B. It is based on inaccurate estimations of the prices of many goods and services.
  - C. It overestimates the amount of commercial activity that is generated in the United States.
  - D. It is conducive to error because it conflates distinct types of economic activity.
  - E. It does not take into account the economic utility of certain environmental and social conditions.

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,
- (10) 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
- (15) 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
- (20) 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
- (25) 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
- (30) 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
- (35) 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.

- 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

- (45) such as fault scarps that were caused by 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 17–22 refer to the passage.**

17. 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
18. 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
19. 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
20. 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.
21. 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.

22. 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.

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  
(5) 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.

(10) 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  
(15) 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 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 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 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 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 manipulative or deliberately misleading.

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 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 23–29 refer to the passage.**

23. 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
24. 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.
25. 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
26. The primary purpose of the passage is to
- A. point out the risks involved in the use of a particular advertising strategy
  - B. make a case for the superiority of one advertising strategy over another
  - C. illustrate the ways in which two advertising strategies may be implemented
  - D. present the advantages and disadvantages of two advertising strategies
  - E. contrast the types of target markets for which two advertising strategies are appropriate
27. Which of the following best describes the function of the sentence in lines 25–28 in the context of the passage as a whole?
- A. It reiterates a distinction between two advertising strategies that is made in the first paragraph.
  - B. It explains how a particular strategy avoids a drawback described earlier in the paragraph.
  - C. 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.
28. 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
29. 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.

Line Coral reefs are one of the most fragile, biologically  
complex, and diverse marine ecosystems on Earth.  
This ecosystem is one of the fascinating paradoxes  
(5) of the biosphere: how do clear, and thus nutrient-  
poor, waters support such prolific and productive  
communities? Part of the answer lies within the  
tissues of the corals themselves. Symbiotic cells of  
algae known as zooxanthellae carry out  
photosynthesis using the metabolic wastes of the  
(10) corals, thereby producing food for themselves, for

their coral hosts, and even for other members of the reef community. This symbiotic process allows organisms in the reef community to use sparse nutrient resources efficiently.

- (15) Unfortunately for coral reefs, however, a variety of human activities are causing worldwide degradation of shallow marine habitats by adding nutrients to the water. Agriculture, slash-and-burn land clearing, sewage disposal, and manufacturing
- (20) that creates waste by-products all increase nutrient loads in these waters. Typical symptoms of reef decline are destabilized herbivore populations and an increasing abundance of algae and filter-feeding animals. Declines in reef communities are
- (25) consistent with observations that nutrient input is increasing in direct proportion to growing human populations, thereby threatening reef communities sensitive to subtle changes in nutrient input to their waters.

**Questions 30–34 refer to the passage.**

30. The passage is primarily concerned with
- A. describing the effects of human activities on algae in coral reefs
  - B. explaining how human activities are posing a threat to coral reef communities
  - C. discussing the process by which coral reefs deteriorate in nutrient-poor waters
  - D. explaining how coral reefs produce food for themselves
  - E. describing the abundance of algae and filter-feeding animals in coral reef areas
31. The passage suggests which of the following about coral reef communities?
- A. Coral reef communities may actually be more likely to thrive in waters that are relatively low in nutrients.

- B. The nutrients on which coral reef communities thrive are only found in shallow waters.
  - C. Human population growth has led to changing ocean temperatures, which threatens coral reef communities.
  - D. The growth of coral reef communities tends to destabilize underwater herbivore populations.
  - E. Coral reef communities are more complex and diverse than most ecosystems located on dry land.
32. The author refers to “filter-feeding animals” (lines 23–24) in order to
- A. provide an example of a characteristic sign of reef deterioration
  - B. explain how reef communities acquire sustenance for survival
  - C. identify a factor that helps herbivore populations thrive
  - D. indicate a cause of decreasing nutrient input in waters that reefs inhabit
  - E. identify members of coral reef communities that rely on coral reefs for nutrients
33. According to the passage, which of the following is a factor that is threatening the survival of coral reef communities?
- A. The waters they inhabit contain few nutrient resources.
  - B. A decline in nutrient input is disrupting their symbiotic relationship with zooxanthellae.
  - C. The degraded waters of their marine habitats have reduced their ability to carry out photosynthesis.
  - D. They are too biologically complex to survive in habitats with minimal nutrient input.
  - E. Waste by-products result in an increase in nutrient input to reef communities.
34. It can be inferred from the passage that the author describes coral reef communities as paradoxical most likely for which of the

following reasons?

- A. They are thriving even though human activities have depleted the nutrients in their environment.
- B. They are able to survive in spite of an overabundance of algae inhabiting their waters.
- C. They are able to survive in an environment with limited food resources.
- D. Their metabolic wastes contribute to the degradation of the waters that they inhabit.
- E. They are declining even when the water surrounding them remains clear.

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  
(5) 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  
(10) 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.

(15) 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  
(20) 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  
(25) between them, we can deduce the restraining

force, and hence the masses.

**Questions 35–38 refer to the passage.**

35. 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.
36. 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
37. 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.
38. 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 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,  
(5) 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  
(10) 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.  
(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  
(20) team has demonstrated that the concentration of  
PAHs increases as one looks deeper into  
ALH84001, contrary to what one would expect from  
terrestrial contamination. The skeptics' strongest  
argument, however, is that processes unrelated to  
(25) organic life can easily produce all the evidence  
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 39–44 refer to the passage.**

39. 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
40. 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.
41. 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.
42. 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.
43. 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.



44. 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  
(20) 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

- (25) Native Americans living along the coast of what is now 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,
- (30) perhaps half a century.

**Questions 45–53 refer to the passage.**

45. 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
46. 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
47. 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.
48. 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.
49. 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.
50. Which of the following can be inferred from the passage about the Native Americans mentioned in line 24?
- A. They had little use for decorative objects such as earrings.
  - B. They became increasingly dependent on fishing between 1501 and 1524.
  - C. By 1524, only certain groups of Europeans were willing to trade with them.
  - D. The selectivity of their trading choices made it difficult for them to engage in widespread trade with Europeans.
  - E. The selectivity of their trading choices indicates that they had been trading with Europeans for a significant period of time prior to 1524.
51. The passage supports which of the following statements about sixteenth-century European fishing crews working the waters off Newfoundland?
- A. They wrote no accounts of their fishing voyages.
  - B. They primarily sailed under the flag of Portugal.
  - C. They exchanged ship parts with Native Americans for furs.
  - D. They commonly traded jewelry with Native Americans for furs.
  - E. They carried surplus metal implements to trade with Native Americans for furs.
52. 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. A lack of written evidence has made it difficult to establish which Europeans first participated in this trade.
  - B. In general, the physical evidence pertaining to this trade has been more useful than the written evidence has been.
  - C. There is more written evidence pertaining to this trade from the early part of the sixteenth century than from later in that century.
  - D. The earliest written evidence pertaining to this trade dates from a time when the trade was already well established.
  - E. Some important pieces of evidence pertaining to this trade, such as Denys's 1672 account, were long overlooked by archaeologists.
53. 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?
- A. By 1524 they had become accustomed to exchanging goods with Europeans.
  - B. They were unfamiliar with metals before encountering Europeans.
  - C. They had no practical uses for European goods other than metals and metal implements.
  - D. By 1524 they had become disdainful of European traders because such traders had treated them unfairly in the past.
  - E. 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

(5) 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

- (10) 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
- (15) 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
- (20) 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.

- (25) 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
- (30) not overlap with those of another, the two groups might reasonably be considered distinct species.

**Questions 54–57 refer to the passage.**

54. 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

55. 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
56. 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.
57. 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 The new school of political history that emerged in the 1960's and 1970's sought to go beyond the traditional focus of political historians on leaders and government institutions by examining directly  
(5) the political practices of ordinary citizens. Like the old approach, however, this new approach excluded women. The very techniques these historians used to uncover mass political behavior in the nineteenth century United States—quantitative analyses of  
(10) election returns, for example—were useless in analyzing the political activities of women, who were denied the vote until 1920.

By redefining “political activity,” historian Paula Baker has developed a political history that includes  
(15) women. She concludes that among ordinary citizens, political activism by women in the nineteenth century prefigured trends in twentieth century politics. Defining “politics” as “any action taken to affect the course of behavior of  
(20) government or of the community,” Baker concludes that, while voting and holding office were restricted to men, women in the nineteenth century organized themselves into societies committed to social issues such as temperance and poverty. In other  
(25) words, Baker contends, women activists were early practitioners of nonpartisan, issue-oriented politics and thus were more interested in enlisting lawmakers, regardless of their party affiliation, on behalf of certain issues than in ensuring that one  
(30) party or another won an election. In the twentieth century, more men drew closer to women's ideas about politics and took up modes of issue-oriented



politics that Baker sees women as having pioneered.

**Questions 58–63 refer to the passage**

58. The primary purpose of the passage is to
- A. enumerate reasons why both traditional scholarly methods and newer scholarly methods have limitations
  - B. identify a shortcoming in a scholarly approach and describe an alternative approach
  - C. provide empirical data to support a long-held scholarly assumption
  - D. compare two scholarly publications on the basis of their authors' backgrounds
  - E. attempt to provide a partial answer to a long-standing scholarly dilemma
59. The passage suggests which of the following concerning the techniques used by the new political historians described in the first paragraph of the passage?
- A. They involved the extensive use of the biographies of political party leaders and political theoreticians.
  - B. They were conceived by political historians who were reacting against the political climates of the 1960's and 1970's.
  - C. They were of more use in analyzing the positions of United States political parties in the nineteenth century than in analyzing the positions of those in the twentieth century.
  - D. They were of more use in analyzing the political behavior of nineteenth-century voters than in analyzing the political activities of those who could not vote during that period.
  - E. They were devised as a means of tracing the influence of nineteenth-century political trends on twentieth-century political trends.
60. It can be inferred that the author of the passage quotes Baker

directly in the second paragraph primarily in order to

- A. clarify a position before providing an alternative to that position
  - B. differentiate between a novel definition and traditional definitions
  - C. provide an example of a point agreed on by different generations of scholars
  - D. provide an example of the prose style of an important historian
  - E. amplify a definition given in the first paragraph
61. According to the passage, Paula Baker and the new political historians of the 1960's and 1970's shared which of the following?
- A. A commitment to interest group politics
  - B. A disregard for political theory and ideology
  - C. An interest in the ways in which nineteenth-century politics prefigured contemporary politics
  - D. A reliance on such quantitative techniques as the analysis of election returns
  - E. An emphasis on the political involvement of ordinary citizens
62. Which of the following best describes the structure of the first paragraph of the passage?
- A. Two scholarly approaches are compared, and a shortcoming common to both is identified.
  - B. Two rival schools of thought are contrasted, and a third is alluded to.
  - C. An outmoded scholarly approach is described, and a corrective approach is called for.
  - D. An argument is outlined, and counterarguments are mentioned.
  - E. A historical era is described in terms of its political trends.

63. The information in the passage suggests that a pre-1960s political historian would have been most likely to undertake which of the following studies?
- A. An analysis of voting trends among women voters of the 1920's
  - B. A study of male voters' gradual ideological shift from party politics to issue-oriented politics
  - C. A biography of an influential nineteenth-century minister of foreign affairs
  - D. An analysis of narratives written by previously unrecognized women activists
  - E. A study of voting trends among naturalized immigrant laborers in a nineteenth-century logging camp

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 64–68 refer to the passage**

64. The passage is primarily concerned with
- A. identifying historical circumstances that led Du Bois to alter his long-term goals
  - B. defining "accommodationism" and showing how Du Bois used this strategy to achieve certain goals
  - C. accounting for a particular position adopted by Du Bois during the First World War
  - D. 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
65. The passage indicates which of the following about Du Bois's attitude toward Washington?
- A. 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.
66. 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.
67. The author of the passage refers to Washington's call to African Americans in 1895 primarily in order to
- A. identify Du Bois's characteristic position on the continuum between accommodationism and confrontationism
  - B. explain why Du Bois was sympathetic with Washington's views in 1895
  - C. clarify how Trotter's views differed from those of Washington in 1895
  - D. support an assertion about Du Bois's tendency to shift his political positions
  - E. dismiss the claim that Du Bois's position in his 1918 editorial was consistent with his previous views
68. 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?

- A. It was a strategy that Du Bois had consistently rejected in the past.
- B. It represented a compromise between Du Bois's own views and those of Trotter.
- C. It represented a significant redefinition of the long-term goals Du Bois held prior to the war.
- D. It was advocated by Du Bois in response to his recognition of the discrimination faced by African Americans during the war.
- E. It was advocated by Du Bois in part because of his historical knowledge of gains African Americans had made during past wars.

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.

(20) 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

- (25) 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 the improvement was that it could easily be described to customers.

**Questions 69–74 refer to the passage.**

69. 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
70. 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
71. 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.
72. 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
73. 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.
74. 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

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 75–81 refer to the passage.**

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

77. 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.
78. 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
79. 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
80. 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.
81. 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.

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

(5) 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

(10) 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.

(15) 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

(20) 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

(25) 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 82–88 refer to the passage.**

82. 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.
83. 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.
84. 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
85. 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
86. 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
87. 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.
88. 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

Line (5) 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 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-
- (30) life economic significance, the Californianas were portrayed more favorably than were others of the same nationality.

**Questions 89–91 refer to the passage.**

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
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.
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.*

(5) Scientists have been puzzled by the seeming disparity between models of global warming based on 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 effect, thus temporarily retarding global warming.

(10) 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.**

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.
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.
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

(5) 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

(10) 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

(15) 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

(20) 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

(25) 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

(30) 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.**

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
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.
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.
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.
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.
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.
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
- (5) 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*
- (10) *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
- (15) 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
- (20) 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.
- (25) 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
- (30) 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
- (35) 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
- (40) 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
- (45) from American cheese dairying. Comparing these three divergent developments yields some reasons for the differences among them. English cheese-
- (50) making women worked in a setting in which cultural values, agricultural conditions, and the nature of their work combined to support their continued participation. In the other cases, one or more of these elements was lacking.

**Questions 102–105 refer to the passage.**

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

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

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