

# GRE阅读

## 文章270篇 + 120道逻辑题

## 短文章

### Passage 1

A divide between aesthetic and technical considerations has played a crucial role in mapmaking and cartographic scholarship. Since nineteenth century cartographers, for instance, understood themselves as technicians who did not care about visual effects, while others saw themselves as landscape painters. That dichotomy structured the discipline of the history of cartography. Until the 1980s, in what Blakemore and Harley called “the Old is Beautiful **Paradigm**,” scholars largely focused on maps made before 1800, marveling at their beauty and sometimes regretting the decline of the pre-technical age. Early mapmaking was considered art while modern cartography was located within the realm of engineering utility. Alpers, however, has argued that this boundary would have puzzled mapmakers in the seventeenth century, because they considered themselves to be visual engineers.

1. According to the passage, Alpers would say that the assumptions underlying the “paradigm” were
  - A. inconsistent with the way some mapmakers prior to 1800 understand their own work
  - B. dependent on a seventeenth-century conception of mapmaking visual engineering
  - C. unconcerned with the difference between the aesthetic and technical questions of mapmaking
  - D. insensitive to divisions among cartographers working in the period after 1800
  - E. supported by the demonstrable technical superiority of mapmaking made after 1800
2. It can be inferred from the passage that, beginning in the 1980s, historians of cartography
  - A. placed greater emphasis on the beauty of maps made after 1800
  - B. expanded their range of study to include more material created after 1800
  - C. grew more sensitive to the way mapmakers prior to 1800 conceived of their work
  - D. came to see the visual details of maps as aesthetic objects rather than practical cartographic aids
  - E. reduced the attention they paid to the technical aspects of mapmaking

## Passage 2

Most mammals reach sexual maturity when their growth rates are in decline, whereas humans experience a growth spurt during adolescence. Whether apes experience an adolescent growth spurt is still undecided. In the 1950s, data on captive chimpanzees collected by James Gavan appeared devoid of evidence of an adolescent growth spurt in these apes. In a recent reanalysis of Gavan's data, however, zoologist Elizabeth Watts has found that as chimpanzees reach sexual maturity, the growth rate of their limbs accelerates. Most biologists, however, are skeptical that this is a humanlike adolescent growth spurt. While the human adolescent growth spurt is physically obvious and affects virtually the entire body, the chimpanzee's increased growth rate is detectable only through sophisticated mathematical analysis. Moreover, according to scientist Holly Smith, the growth rate increase in chimpanzees begins when 86% of full skeletal growth has been attained, whereas human adolescence generally commences when 77 percent of full skeletal growth has occurred.

1. Which of the following best describes the main idea of the passage?
  - A. Researchers have long disagreed about whether data collected in the 1950s indicate that chimpanzees and other apes experience an adolescent growth spurt.
  - B. Research data collected on chimpanzees living in captivity are inconclusive with respect to chimpanzees living in the wild.
  - C. The notion that apes do not experience an adolescent growth spurt has been confirmed by research conducted since.
  - D. Although the idea that apes experience an adolescent growth has received some support, most biologists remain unconvinced.
  - E. Although researchers agree that chimpanzees do not experience an adolescent growth spurt, they are divided in their opinions of whether this is true of other apes.
2. The passage mentions which of the following as one of the reasons why most biologists remain skeptical that chimpanzees experience a humanlike adolescent growth spurt?
  - A. Chimpanzees do not experience a demonstrable increase in growth rate until they are fully sexually mature.
  - B. The increase in growth rate that chimpanzees undergo at sexual maturity is less apparent than that of humans.
  - C. The increase in growth rate once regarded as a humanlike adolescent growth spurt in chimpanzees is too sporadic to be regarded as significant.
  - D. Not all chimpanzees undergo a calculable growth spurt.
  - E. Watt's approach to analyzing data is considered to be highly unorthodox.
3. The passage suggests which of the following about the adolescent growth spurt that takes place in humans?
  - A. Its primary effects are found in parts of the body other than the limbs.
  - B. It is generally completed by the time 77 percent of full skeletal growth is attained.
  - C. It is normally detectable without the assistance of sophisticated mathematical analysis.
  - D. The rate of growth is much faster at the beginning of puberty than at any other time.
  - E. The estimated growth rate varies depending on the methods of measurement that are used.

## Passage 3

**Many cultural anthropologists** have come to reject the scientific framework of empiricism that dominated the field until the 1970s and now regard all scientific knowledge as socially constructed. They argue that information about cultures during the empiricist era typically came from anthropologists who brought with them a prepackaged set of conscious and unconscious biases. Cultural anthropology, according to the post-1970s critique, is unavoidably subjective, and the anthropologist should be explicit in acknowledging that fact. Anthropology should stop striving to build a better database about cultural behavior and should turn to developing a more humanistic interpretation of cultures. The new framework holds that it may be more enlightening to investigate the biases of earlier texts than to continue with empirical methodologies.

1. The author implies which of the following about most cultural anthropologists working prior to the

1970s?

- A. They argued that scientific knowledge was socially constructed.
- B. They were explicit in acknowledging the biases inherent in scientific investigation.
- C. They regarded scientific knowledge as consisting of empirical truths.
- D. They shared the same conscious and unconscious biases.
- E. They acknowledged the need for a new scientific framework.

2. According to the passage, “many cultural anthropologists” today would agree that anthropologists should

- A. build a better, less subjective database about cultural behavior
- B. strive to improve the empirical methodologies used until the 1970s
- C. reject the notion that scientific knowledge is socially constructed
- D. turn to examining older anthropological texts for unacknowledged biases
- E. integrate humanistic interpretations with empirical methodologies

#### Passage 4

Writing about nineteenth-century women’s travel writing, Lila Harper notes that the four women she discussed used their own names, in contrast with the nineteenth-century female novelists who either published anonymously or used male pseudonyms. The novelists doubtless realized that they were breaking boundaries, whereas three of the four daring, solitary travelers espoused traditional values, eschewing radicalism and women’s movements. Whereas the female novelists criticized their society, the female travelers seemed content to leave society as it was while accomplishing their own liberation. In other words, they lived a **contradiction**. For the subjects of Harper’s study, solitude in both the private and public spheres prevailed—a solitude that conferred authority, hitherto a male prerogative, but that also precluded any collective action or female solidarity.

1. Which of the following best characterizes the “contradiction” that the author refers to?

- A. The subjects of Harper’s study enjoyed solitude, and yet as travelers they were often among people.
- B. Nineteenth-century travel writers used their own names, but nineteenth-century novelists used pseudonyms.
- C. Women’s movements in the nineteenth-century were not very radical in comparison with those of the twentieth-century.
- D. Nineteenth-century female novelists thought they were breaking boundaries, but it was the nineteenth-century women who traveled alone who were really doing so.
- E. While traveling alone in the nineteenth-century was considered a radical act for a woman, the nineteenth-century solitary female travelers generally held conventional views.

For the following question, consider each of the choices separately and select all that apply.

2. According to the passage, solitude had which of the following effects for the nineteenth century female travelers?

- A. It conferred an authority typically enjoyed only by men.
- B. It prevented formation of alliances with other women.
- C. It relieved peer pressure to conform to traditional values.

#### Passage 5

Although vastly popular during its time, much nineteenth-century women’s fiction in the United States went unread by the twentieth-century educated elite, who were taught to ignore it as didactic. However, American literature has a tradition of didacticism going back to its Puritan roots, shifting over time from sermons and poetic transcripts into novels, which proved to be perfect vehicles for **conveying** social values. **In the nineteenth century, critics reviled Poe for neglecting to conclude his stories with pithy moral tags, while Longfellow was canonized for his didactic verse.** Although rhetorical changes favoring the anti-didactic can be detected as nineteenth-century American transformed itself into a secular society, it was twentieth-century criticism, which placed aesthetic value above everything else, that had no place in its doctrine for the didacticism of others.

1. Which of the following best describes the function of the highlighted sentence?
  - A. It explains why the fiction mentioned in the first sentence was not popular in the twentieth century.
  - B. It assists in drawing a contrast between nineteenth-century and twentieth-century critics.
  - C. It provides an example of how twentieth – century readers were taught to ignore certain literature.
  - D. It questions the usefulness of a particular distinction between Poe and Longfellow made by critics.
  - E. It explains why Poe’s stories were more popular than Longfellow’s verse during the nineteenth century.
2. In the context in which it appears, “conveying” most nearly means
  - A. carrying
  - B. transferring
  - C. granting
  - D. imparting
  - E. projecting

### Passage 6

During the Pleistocene epoch, several species of elephants isolated on islands underwent rapid dwarfing. This phenomenon was not necessarily confined to the Pleistocene, but may have occurred much earlier in the Southeastern Asian islands, although evidence is fragmentary. Several explanations are possible for this dwarfing. For example, islands often have not been colonized by large predators or are too small to hold viable predator populations. Once free from predation pressure, large body size is of little advantage to herbivores. Additionally, island habitats have limited food resources, a smaller body size and a need for fewer resources would thus be favored. Interestingly, the island rule is reversed for small mammals such as rodents, for which gigantism is favored under insular conditions.

1. The primary purpose of the passage is to
  - A. question the plausibility of one explanation sometimes offered for the dwarfing of certain species living on islands
  - B. argue that dwarfing of certain species living on islands occurred prior to the Pleistocene
  - C. cite evidence suggesting that dwarfing may have adverse consequences for some species living on islands
  - D. present some possible explanations for the dwarfing of certain species living on islands
  - E. contrast the effects of insular conditions on species with large body size and species with small body
2. According to the passage, which of the following statements about body size in mammals is true?
  - A. A large body is unfavorable to mammalian species’ survival under most conditions.
  - B. A large body tends to benefit small mammals living on islands.
  - C. For most herbivorous mammals, a large body size is easier to sustain in the absence of large predators.
  - D. Under most conditions, a small body is less beneficial to herbivorous mammals than to nonherbivorous mammals.
  - E. Among nonherbivorous mammals, a small body is more beneficial on an island than on a mainland.

### Passage 7

In the early twentieth century, small magazines and the innovative graphics used on them created the face of the avant-garde. It was a look that signaled progressive ideas and unconventionality because it dispensed with the cardinal rule of graphic design: to take an idea and make it visually clear, concise, and instantly understood. Instead, graphics produced by avant-garde artists exclusively for the avant-garde (as opposed to their advertising work) were usually difficult to decipher, ambiguous, or nonsensical. This overturning of convention, this assailing of standard graphic and typographic formats, was part of a search for intellectual freedom. The impulse toward liberation enabled avant-gardists to see with fresh eyes untried possibilities for arranging and relating words and images on paper.

1. According to the passage, the primary purpose of conventional graphic design is to
- A. render unpopular ideas palatable to a wider audience
  - B. capture readers' attention with bold fonts
  - C. communicate nonsensical notions to a wide public
  - D. communicate ideas as efficiently and unambiguously as possible
  - E. introduce previously unknown ideas to the general public

For the following question, consider each of the choices separately and select all that apply.

2. According to the passage, avant-garde artists of the early twentieth-century created ambiguous or nonsensical graphics as part of an attempt to
- A. expand the potential for expression through visual art
  - B. compete with advertisements for reader's attention
  - C. encourage the expansion of small magazines

### Passage 8

According to Hill and Spicer, the term “nation-state” is a misnomer, since the ideal model of a monolingual, culturally homogeneous state has never existed, not even among Europeans, who invented the nation-state concept and introduced it to the rest of the world. Modern European states, they argue, emerged after the Renaissance through the rise of nations (i.e., specific ethnic groups) to positions of political and economic dominance over a number of other ethnic groups within the bounded political territories. The term “nation-state”, Hill and Spicer argue, obscures the internal cultural and linguistic diversity of states that could more accurately be called “conquest states.” The resurgence of multiple ethnic groups within a single state, Hill says, is not “potentially threatening to the sovereign jurisdiction of the state,” as Urban and Sherzer suggest; rather, the assertion of cultural differences threatens to reveal ethnocentric beliefs and practices upon which conquest states were historically founded and thus to open up the possibility for a “nations-state” in which conquered ethnic groups enjoy equal rights with the conquering ethnic group but do not face the threat of persecution or cultural assimilation into the dominant ethnic group.

1. The primary purpose of the passage is to
- A. discuss issues relating to a form of political organization by raising doubts about the terminology used to refer to it
  - B. trace changes in a form of political organization by examining the evolution of the terminology used to refer to
  - C. justify the continued use of an established term for an evolving form of political organization
  - D. question the accuracy of a new term for a form of political organization
  - E. compare two terms for a form of political organization
2. The author of the passage quotes Urban and Sherzer most probably in order to
- A. introduce a discussion of the legal ramifications of expanding the nation-state concept
  - B. summarize a claim about one possible effect of asserting cultural differences within a state
  - C. shift the focus of discussion from internal threats that states face to external threats that they face
  - D. point out similarities between the threats to states seen by Urban and Sherzer and those seen by Hill
  - E. describe one way an ethnocentric practice has affected attempts to assert cultural differences within a state
3. According to the passage, Hill and Spicer define nations as which of the following?
- A. coalitions of distinct ethnic groups with similar concerns
  - B. Distinct ethnic groups
  - C. Culturally homogeneous states
  - D. Linguistically diverse states
  - E. Territorially bounded states

### Passage 9

From 1910 to 1913, women suffragists in the United States organized annual parades—activity traditionally conducted by men to proclaim solidarity in some cause—not only as a public expression of suffragist solidarity but also a conscious transgression of the **rules of social order**: women’s very presence in the streets challenged traditional notions of femininity and restrictions on women’s conduct. While recognizing the parade’s rhetorical force as a vehicle for social change, scholars have recently begun to examine its drawbacks as a form of protest. Lumsden characterizes the American suffrage parade as a “double-edged sword”, arguing that women’s efforts to proclaim their solidarity left them open to patronizing commentary from press and public and to organized opposition from antisuffragists.

1. It can be inferred from the passage that men’s and women’s parades were similar in that both
  - A. were employed as rhetorical vehicles for social change
  - B. were regarded as violating contemporary standards of public decorum
  - C. made participants vulnerable to organized opposition
  - D. were largely ineffective as forms of protest
  - E. were intended by their participants as public declarations of solidarity
2. The passage suggests which of the following about proponents of the “rules of social order?”
  - A. They frowned upon public displays such as parades.
  - B. They had ulterior motives for objecting to women’s participation in suffrage parades.
  - C. They formed the core of the organized opposition to women suffrage.
  - D. They believed that it was unfeminine for women to march in suffrage parades.
  - E. They supported women’s rights to vote but disapprove some of the methods that suffragists employed to gain that right.

### Passage 10

Unlike most Jane Austen scholarship before 1980, much recent scholarship analyzes the novels of Austen, who lived from 1775 to 1817, in the context of Austen’s tumultuous times, which saw the French and American revolutions and the Napoleonic Wars. Yet Frantz notes another revolution, rarely mentioned in Austen scholarship: the Great Masculine Renunciation that altered conventions in men’s dress and behavior. During the later eighteenth century, wealthy gentlemen exchanged the velvets and satins long in fashion for somber woolen suits. Frantz contends that this change reflected deeper cultural changes. The value once placed on men’s expressiveness, reflected in Mackenzie’s novel *The Man of Feeling* (1771), gave way to a preference for emotional restraint. In Austen’s novels, the heroine often struggles to glimpse the true nature of hero beneath his reserved exterior.

1. The author of the passage mentions *The Man of Feeling* (1771) in order to
  - A. contrast Mackenzie’s reasons for writing novels with those of Austen
  - B. introduce evidence regarding the influence of particular writers on Austen
  - C. corroborate a claim that a convention of masculine behavior changed during Austen’s lifetime
  - D. suggest that Austen’s novels were more reflective of their historical context than Mackenzie’s had been
  - E. challenge a particular misconception about the modes of behavior common among gentlemen in the later eighteenth century
2. The passage suggests which of the following about scholarship on Jane Austen?
  - A. Much recent scholarship has begun to place greater emphasis on gender conventions governing men’s behavior during Austen’s lifetime.
  - B. Some scholarship has debated whether Austen’s novels depict emotional restraint as an admirable quality.
  - C. Certain scholars argue that Austen’s novels do not accurately reflect cultural changes during Austen’s lifetime that changed the way gentlemen dressed and behaved.
  - D. After 1980, scholarship on Austen shifted toward a greater emphasis on the historical context in which she wrote.
  - E. With few exceptions, recent scholarship depicts Austen as a writer who had little interest in the tumultuous events of her time.

## Passage 11

Whereas Carlos Bulosan aimed through fiction and personal testimony to advance both Filipino civil rights in the United States and the social transformation of the Philippines, Yen Le Espiritu has set herself the task of recovering life histories of Filipino Americans. Her work brings Filipino Americans of the generation following the 1934-1965 immigration hiatus **graphically** to life. A special strength is the representation of Filipino American women, who were scarce among immigrants before the 1934 American curb on Filipino immigration but composed more than half of the immigrants to America since liberalization in 1965. Espiritu's subjects document their changing sense of Filipino identity in the United States, much as Bulosan did as a member of the first substantial wave of immigrants.

1. According to the passage, both Bulosan and Espiritu do which of the following in their work?
  - A. Consider generational differences in Filipino immigrants' responses to life in the United States
  - B. Attempt to make allowance for the demographic variations among Filipino immigrants to the United States
  - C. Employ fiction in addition to documenting actual life histories of Filipino immigrants to the United States
  - D. Represent how life in the United States has affected immigrants' sense of Filipino identity
  - E. Examine the effects on Filipinos in the United States of the 1934 American curb on Filipino immigration
2. In the context in which it appears, "graphically" most nearly means
  - A. in writing
  - B. by means of drawing
  - C. impressionistically
  - D. diagrammatically
  - E. vividly

## Passage 12

While historian Linda Nicholson sees women's participation in voluntary associations as activities consistent with the increasing relegation of women's lives to a separate, "private" sphere in nineteenth-century Europe, historian Katherine Lynch argues that these kinds of activities enabled women to join with one another and to develop a kind of shadow citizenship within civil society, if not the formal state. **These kinds of experiences** were no substitute for actual political entitlements, Lynch suggests, but they deserve more attention for their importance in helping individuals forge enduring bonds of community and identity beyond domestic life. Only by limiting one's notion of public life to formal political participation, she says, can one conclude that most women in Western society have ever been literally consigned to a separate or "private" sphere.

1. The phrase "These kinds of experiences" in the passage refers to experiences that in Lynch's view are
  - A. an early stage in women's political participation
  - B. insufficiently appreciated for their role in women's public life
  - C. properly assigned to the "private" sphere
  - D. a means of altering the political structure
  - E. historically atypical for women in Western society
2. The passage implies that Lynch would agree that formal political participation
  - A. was increasingly important as the nineteenth century progressed
  - B. was an underreported phenomenon among women in nineteenth century Europe within civil society
  - C. is crucial to helping individuals form community ties
  - D. is a significant component of public life
  - E. is indicative of a kind of shadow citizenship.



### Passage 13

As it was published in 1935, *Mules and Men*, Zora Neale Hurston's landmark collection of folktales, may not have been the book that its author first had in mind. In this anthropological study, Hurston describes in detail the people who tell the stories, often even inserting herself into the storytelling scene. Evidently, however, Hurston had prepared another version, a manuscript that was recently discovered and published after having been forgotten since 1929. This version differs from *Mules and Men* in that it simply records stories, with no descriptive or interpretive information.

While we cannot know for certain why Hurston's original manuscript went unpublished during her lifetime, it may have been because publishers wanted something more than a transcription of tales. Contemporary novelist and critic John Edgar Wideman has described Black literature as the history of a writing that sought to "escape its frame," in other words, as the effort of Black writers to **present** the stories of Black people without having to have a mediating voice to explain the stories to a non-Black audience. In this, Hurston may have been ahead of her time.

1. Select the sentence that suggests a possible reason why Hurston wrote the version of *Mules and Men* that was published in 1935.
2. The passage suggests that Hurston may have done which of the following in preparing her original version?
  - A. Discussed her mode of presentation with her publisher before writing the first draft, in order to reduce the possibility of misunderstanding.
  - B. Shortened her presentation of the stories to the bare minimum in order to be able to present more folklore material.
  - C. Put it aside for several decades in order to maximize its potential audience when it was published
  - D. Reluctantly agreed to reshape it in order to take out various elements with which her publisher had been dissatisfied.
  - E. Chose not to include editorial commentary, in order to present the stories on their own terms.
3. Replacement of the word "present" with which of the following results in the least change in meaning for the passage?
  - A. hand over
  - B. donate
  - C. offer
  - D. propose
  - E. submit

### Passage 14

1800 Thomas Dilworth's *New Guide to the English Dialogue* was being widely used to teach reading in the United States. Dilworth's primer, unlike earlier ones, stressed the importance of children's understanding what they read. While it is in fact unlikely that children would have recognized all the vocabulary Dilworth used, that was at least his stated goal. Dilworth recognized that primers should enable children to decode words from print with the form of language they already knew: speech. In contrast, many **earlier authors** assumed that, just as introductory Latin texts taught children an unknown language, introductory English texts should teach English as if it, too, were an unknown language—such their esoteric choice of vocabulary, it in effect became unknown.

1. According to the passage, the "earlier authors" adopted a model for English instruction that
  - A. mirrored the practice used in Latin instruction
  - B. was originally formulated by Dilworth
  - C. was less esoteric than that adopted by Dilworth
  - D. stressed familiarity with the peculiarities of English spelling
  - E. emphasized the importance of fluent and articulate speech
2. The author of the passage would probably agree with which of the following criticisms of English primers predating Dilworth's?
  - A. Their Latinate grammatical terms poorly described the structures of English.

- B. They failed to make effective use of the knowledge of language a child already possessed.
- C. Their texts typically focused on subject matter that held little intrinsic interest for their readers.
- D. They neglected to teach the language in a sufficiently systematic way.
- E. They required a pedagogical method that few American teachers of the era possessed.

### Passage 15

Ecologists study how millions of species share the world, rather than take on the whole planet at once; they generally focus on a single ecosystem, be it a prairie, a tidal flat, or a sand dune. Even within those limits, they are frustrated by **porous frontiers**. As a result, ecologists have done some of their most important work on islands, nature's own **isolated** laboratories, which may be colonized only a few times over the course of millions of years. On them, ecologists have figured out how the size of a given habitat determine how many species it can support. They have then applied that knowledge to the mainland, showing how fragmented ecosystems become like archipelagoes, where extinctions can strike.

1. It can be inferred that the term "porous frontiers" is used to refer to
  - A. a tendency for the area of an ecosystem to shrink
  - B. human-caused processes that alter the character of an ecosystem
  - C. movement of species into an ecosystem from outside
  - D. variation in what the term "ecosystem" signifies
  - E. lack of protection for endangered habitats
2. In the context in which it appears, "isolated" most nearly means
  - A. completely uncontaminated
  - B. somewhat unusual
  - C. extremely rare
  - D. relatively inaccessible
  - E. strictly confined

### Passage 16

Matisse's art, with its spectacular immediacy and its mysterious depths, poses confounding problems for analysis. When Hilary Spurling writes of *The Piano Lesson* that "the picture cannot be confined to any single source or meaning," she might be writing of any of Matisse's works. Picasso's themes, with their collage of traditional signs and symbols, are far more susceptible to conventional iconographic analysis than anything in Matisse. Similarly, the cubism of Picasso and Braque, while rejecting traditional perspective, can nevertheless be studied as an inversion of traditional norms, using the same tools that one uses to study those norms. But the solutions that Matisse arrives at are always idiosyncratic and tend to be unrelated to any system of ideas. Intuition is his only system.

1. The passage suggests which of the following about Braque's cubism?
  - A. It lends itself more readily to systematic analysis than does Matisse's work.
  - B. It is more radical in terms of form than most paintings by Matisse.
  - C. It was influenced by Matisse's idiosyncratic and intuitive approach.
  - D. It cannot be confined to any single source or meaning.
  - E. It is overly dependent on traditional signs and symbols.

For the following question, consider each of the choices separately and select all that apply.

2. The passage identifies which of the following as a reason that Matisse's art can confound analysis?
  - A. Traditional analytical tools are not well suited to Matisse's art.
  - B. Matisse's art is marked by a freedom from systematic influence.
  - C. The norms that Picasso and Braque rejected were not ones that Matisse rejected

## Passage 17

Carla L. Peterson's *Doers of the Word* (1997), a study of African American women speakers and writers from 1830-1880, is an important addition to scholarship on nineteenth-century African American women. Its scope resembles that of Frances Smith Foster's 1993 study, but its approach is quite different. For Foster, the Black women who came to literary voice in nineteenth-century America were claiming their rights as United States citizens, denying that anything should disqualify them from full membership in an enlightened national polity. Peterson sees these same women as having been fundamentally estranged from the nation by a dominant culture unsympathetic to Black women, and by a Black intelligentsia whose male view of race concerns left little room for Black female intellect.

For the following question, consider each of the choices separately and select all that apply.

1. The passage indicates that Peterson identifies which of the following as obstacles faced by the women included in her study?
  - A. The attitudes of Black male intellectuals toward female intellectual work
  - B. The discriminatory attitudes faced by Black women in nineteenth-century America as a whole
  - C. Disagreements among Black women speakers and writers themselves about the impact of the Black intelligentsia
2. It can be inferred that Peterson's study and Foster's study are similar with respect to which of the following?
  - A. The writers that each takes up for examination
  - B. The degree to which each has influenced other scholars
  - C. The assumptions that each brings to nineteenth-century African American literature
  - D. Their analysis of the nineteenth-century Black intelligentsia.
  - E. Their interpretation of nineteenth-century America's dominant culture

## Passage 18

David Belasco's 1912 Broadway production of *The Governor's Lady* created a sensation with a scene set in a Child's cafeteria, a chain restaurant that was an innovator in food standardization and emblematic of modern everyday life. While Belasco's meticulously detailed reproduction of an immediately recognizable setting impressed the public, it was derided by progressive theater critics who championed the New Stagecraft theories of European artists like Max Reinhardt. The New Stagecraft rejected theatrical literalism; it drew inspiration from the subjectivity and minimalism of modern painters, advocating simplified sets designed to express a dramatic text's central ideas. Such critics considered Belasco a craftsman who merely captured surface realities: a true artist eliminated the inessential to create more meaningful, expressive stage images.

1. The author of the passage implies which of the following about Belasco's production of *The Governor's Lady*?
  - A. It was dismissed by certain theater critics who misunderstood Belasco's conception of modernity.
  - B. It was intended to marshal elements of the New Stagecraft to serve Belasco's predilection for realistic staging.
  - C. It demonstrated that theatrical literalism could be used effectively to express a dramatic text's central ideas.
  - D. It elicited responses that reflected a discrepancy between popular tastes in entertainment and the tastes of progressive theater critics.
  - E. It relied on the appeal of an impressively realistic stage set to compensate for weaknesses in other aspects of the production.
2. It can be inferred that the theater critics would be most likely to agree with which of the following statements about the theatrical productions?
  - A. Theatrical productions that seek to eliminate the inessential also often eliminate theatrical elements that enhance the expressiveness of a play.
  - B. Theatrical productions that faithfully recreate the visual details of everyday life are unlikely to do justice to a good play's central ideas.

- C. Theatrical productions that employ the minimalism characteristic of modern paintings may have greater appeal to modern audiences than productions that rely on theatrical literalism.
- D. Theatrical productions that aim to represent truths about modern life should not attempt to employ elements of the New Stagecraft.
- E. Theatrical productions that attempt to produce authentic-looking scenes of everyday reality are likely to fail in that goal because of the theater's inherent limitations.

### Passage 19

African American drama has, until recently, been rooted in the mimetic tradition of modern American naturalism. The most distinctive attribute of this tradition is the mechanistic, materialistic conception of humanity. Naturalism sees each individual as inextricably bound to the environment and depicts each person as someone controlled by, instead of controlling, concrete reality. As long as African American drama maintained naturalism as its dominant mode, it could only express the "plight of African American people." Its heroes might declare the madness of reality, but reality inevitably triumphed over them. The surrealistic plays of Adrienne Kennedy mark one of the first departures from naturalism by an African American dramatist. The overall goal of her work has been to depict the world of the soul and the spirit, not to mirror concrete reality. Within this framework, Kennedy has been able to portray African American minds and souls liberated from their connections to the external environment.

1. Which of the following best states the central idea of the passage?
  - A. African American drama has been primarily influenced by naturalism's emphasis on the materialistic.
  - B. African American drama has traditionally acknowledged the relationship between the individual and the environment.
  - C. African American drama, traditionally naturalistic, has been little influenced by dramatist Kennedy's spiritual and psychological approach to drama.
  - D. The work of Kennedy suggests a shift away from a commitment to strict naturalism in African American drama.
  - E. The work of Kennedy best exemplifies the current interest of African American artists in the spiritual and psychological worlds.
2. According to the passage, Kennedy is concerned with depicting the
  - A. Internal rather than the external life of her characters
  - B. Madness of reality rather than the effects of reality
  - C. Effects of materialism on African American minds and souls
  - D. Relationship between naturalism and the human spirit
  - E. Effects that her characters have on the environment
3. Which of the following statements, if true, would most strengthen the author's assertion that Kennedy's work marks a serious departure from the tradition described in the first paragraph?
  - A. Kennedy places the action in a real-life setting that is nevertheless unfamiliar to the average viewer or reader.
  - B. Kennedy movingly portrays the lives and struggles of prominent African Americans in the United States.
  - C. Kennedy uses characters found only in ancient African legends and mythology
  - D. Kennedy provides insights into American mimetic tradition and dramatic convention
  - E. Kennedy depicts the events in a style reminiscent of a television documentary

### Passage 20

Constant variations in the amount of sunlight available on Earth at any given location make energy storage a necessary design feature of terrestrial solar-energy systems. For systems transforming

solar to thermal energy, the thermal energy may be stored in matter as either latent heat or sensible heat. Latent heat is absorbed or released whenever matter changes phase, as when matter changes from liquid to gas, for example, or from gas to liquid. Large heat capacities are associated with certain materials, like salts, but in any substance this storage is available only at the unique fixed temperature at which the particular phase transition occurs in that substance. Moreover, materials that have transitions at the temperatures that terrestrial solar-energy systems are likely to encounter are usually destructively corrosive at those temperatures. The storage of sensible heat, on the other hand, allows flexibility as to temperature; in addition, safe substances like water and most rocks have large sensible heat capacities.

1. The primary purpose of the passage is to discuss which of the following?

- A. Reasons for the necessity for developing solar-energy systems
- B. Different ways of storing solar energy as heat
- C. New designs for devices that collect solar energy
- D. Procedures for transferring thermal energy between materials
- E. Differences between capacities of solids and liquids to store sensible heat.

Consider each of the choices separately and select all that apply

2. According to the passage, solar-energy systems located on Earth must store energy for which of the following reasons?

- A. At any given location on Earth, the amount of sunlight available frequently changes.
- B. The operation of such systems depends on devices that require a power source other than solar energy
- C. Demand for the energy produced by such systems varies in unpredictable ways

Consider each of the choices separately and select all that apply

3. The author suggests that which of the following constitutes a potential disadvantage of using latent heat for energy storage?

- A. The circumstances under which phase transitions occur would limit the versatility of latent heat as a storage method.
- B. The supply of substances that possess the properties that are needed in a medium for latent heat storage is dwindling.
- C. The properties that are needed in a medium for latent heat storage are found in substances that have other, undesirable properties.

## Passage 21

Our terrestrial food supply comes from ecosystems transformed to produce a few comestible species through the removal of competitors, predators, and pests, but marine capture fisheries depend on the overall productivity of natural ecosystems. There is, however, increasing concern about the impact of fishing and other human activities on marine ecosystems, which are now far from pristine. One option for moving toward both biodiversity and terrestrial food supply goals is to produce greater yields from less land, thereby freeing land for conservation purposes. By contrast, the objective of maintaining or restoring the biodiversity of marine ecosystems may conflict with the objective of maintaining or increasing our food supply from the sea, since the level of fishing required to achieve the latter may compromise the former.

1. The primary purpose of the passage is to

- A. Examine the impact of certain research findings regarding changes to ecosystem biodiversity.
- B. Discuss a possible implication of a difference between terrestrial and marine food supply sources.
- C. Describe the consequences of a certain kind of interaction between terrestrial and marine ecosystems.
- D. Identify an area of ecosystem research in which there are significant uncertainties.
- E. Present evidence that undermines one side of a debate about biodiversity and supports the other.

2. According to the passage, increasing the food yield per unit of land can have which of the following effects?

- A. Enabling more land to be used for development purposes

- B. Compromising progress toward conservation goals
- C. Helping protect comestible species from competition and predation
- D. Helping reduce pressure on marine ecosystems
- E. Helping restore the biodiversity of terrestrial ecosystems

## Passage 22

Marine ecosystems certainly have less permanence than terrestrial ecosystems. Ashore, ecologists are not confronted with shifting ecological discontinuities, or with changes in the characteristic conditions of individual ecosystems, because, unless man intervenes, the tree line on a mountain or the passage between grassland and savannah remains approximately static over a human lifetime. It is only on the millennial scale that such boundaries migrate significantly, or that characteristic regional ecosystems disappear. Urban sprawl, deforestation, overgrazing, and intensive agriculture are accomplishing in a few decades what nature cannily do in centuries, but that sad fact does not alter the argument. Although the human population explosion can produce pressures that rapidly shift ecological boundaries and modify ecosystems ashore, it is paradoxically more difficult directly to modify the average locations of the ephemeral and shifting **ecological boundaries of the sea**. We can accomplish this only indirectly by atmospheric modification, resulting in a changed global climate and a shifted ocean circulation.

Indeed, if we are agreed that the regional characteristics of marine ecosystems are consequent on the characteristics of the physical environment, then we must assume that ecological conditions are as impermanent as the physical conditions themselves. And these, it is now well understood, are in continual flux and state of change at all scales of variability.

1. The primary purpose of the passage is to
  - A. examine differences in the threats faced by marine and terrestrial ecosystems.
  - B. explain how human intervention has affected marine and terrestrial ecosystems.
  - C. discuss a distinguishing feature of marine ecosystems
  - D. present a debate regarding the causes of marine ecosystem impermanence
  - E. discuss certain consequences of marine ecosystem impermanence
2. The passage indicates which of the following about the “ecological boundaries of the sea?”
  - A. They have become increasingly sensitive to changes in global climate.
  - B. They are not significantly impacted by changes in Earth’s atmosphere.
  - C. Their stability is essential to the health of marine ecosystems.
  - D. They are more closely tied to surrounding physical conditions than are analogous boundaries on land
  - E. They are less susceptible to direct human intervention than are analogous boundaries on land.

## Passage 23

Only since the late 1960s have literary scholars attempted to establish an accurate and systematic literary history of women novelists. Many previous histories suffered from “Great Traditionalism,” an approach that, by limiting itself to a group of women writers termed “great,” ignored the diversity among women novelists. These histories excluded the minor novelists, who are the links in the chain that binds literary generations together, and who allow us to see the continuities in women’s writing. Given the distortions produced by this concentration on “great” writers, as well as the obviously problematic tendency of many literary scholars to apply stereotypes of femininity, it was not surprising that **some literary scholars in the early 1960s** evaded the important issue of women’s sexual identity entirely, focusing instead on the form and style of women’s writing. Such an approach, while insightful and very valuable, did not consider the crucial connection between women’s writing and changes in their legal and economic status.

1. According to the passage, some literary scholars in the early 1960s tended to do which of the following in their considerations of women novelists’ works?
  - A. Attack the traditional distinction between “great” women novelists and those women novelists considered less important

- B. Consider sexual identity when evaluating the works of “great” women novelists but not the works of minor women novelists
- C. Ignore the issue of the sexual identity of women novelists altogether
- D. Address issues of form and style more frequently when discussing “great” women novelists than when discussing minor women novelists
- E. Apply more stringent stylistic standards when evaluating minor women writers than when evaluating the group of women writers

2. Information in the passage suggests that literary histories that adhere to “Great Traditionalism” have which of the following flaws?

- A. They overemphasize the issue of sexual identity in women’s writing
- B. They overemphasize the degree of continuity between literary generations
- C. They do not help to explain the connection between different generations of women novelists
- D. They denigrate the achievements of “great” female novelists in comparison with those of male novelists.
- E. They do not incorporate the insights of literary histories produced before the late 1960s.

3. The attitude of the author of the passage toward the approach taken toward women novelists by “some literary scholars in the early 1960s” can best be described as

- A. disinterested and aloof
- B. condescending and dismissive
- C. respectful but critical
- D. favorable but brusque
- E. interested but puzzled

#### **Passage 24**

W.E.B. Du Bois’ exhibit of African American history and culture at the 1900 Paris Exposition Universelle attracted the attention of a world of sociological scholarship whose value his work challenged. Du Bois believed that Spencerian sociologists failed in their attempts to gain greater understanding of human deeds because their work examined not deeds but theories and because they gathered data not to affect social progress but merely to theorize. In his exhibit, Du Bois sought to present cultural artifacts that would shift the focus of sociology from the construction of vast generalizations to the observation of particular, living individual elements of society and the working contributions of individual people to a vast functioning social structure.

1. The passage implies that Du Bois attributed which of the following beliefs to Spencerian sociologists?

- A. Theorizing is important to the understanding of human actions
- B. Vast generalizations have limited value.
- C. Data gathering is a relatively unimportant part of sociological research.
- D. Sociology should focus on the living elements of society rather than cultural artifacts.
- E. Particulars are more important than universals.

For the following question, consider each of the choices separately and select all that apply.

2. The passage implies that Du Bois believed which of the following statements about sociology?

- A. It should contribute to the betterment of society.
- B. It should study what people actually do.
- C. It should focus on how existing social structures determine individual behavior.

3. It can be inferred from the passage that Du Bois believed which of the following statements about the artifacts he included in his exhibit?

- A. They tended to support an established view of African American history and culture.
- B. They documented the contributions of particular African Americans to American social structure.
- C. They were chosen to encourage Spencerian sociologists to form useful generalizations.

## Passage 25

Because the American Civil War coincided with technological innovations in pictorial recording and reproduction, it was perceived through new informational forms—engravings and photographs. Historians have emphasized the photograph, retrospectively attributing significance to its representational detail, clarity, and authenticity. But the possible subject matter for photographs was limited by the extremely slow exposure time and precarious development process of the period. Moreover, the limitations of pictorial reproduction made photographic salons or were distributed in albums and stereograph cards. Photographs stand as invaluable pictorial records for historians; for the public during the Civil War, however, the engravings in the illustrated press outweighed in their accessibility and immediacy the comparatively expensive photographic albums and cards.

For the following question, consider each of the choices separately and select all that apply.

1. Which of the following statements about engravings of Civil War scenes can be inferred from the passage?
- A. They could be reproduced far more cheaply than photographs.
  - B. Their subject matter was typically more limited than that of photographs.
  - C. They are often based on photographs.

For the following question, consider each of the choices separately and select all that apply.

2. Which of the following technological limitations does the passage mention as affecting the subject matter of Civil War photographs?
- A. The tricky development process
  - B. The long exposure time required
  - C. The expense of generating reproductions

## Passage 26

Livestock-grazing programs in arid zones that are based on the equilibrium view of rangelands—that grazing-induced land degradation will occur if livestock numbers exceed the availability of food—have failed. Contrary to the equilibrium view, traditional pastoral systems of land use are more appropriate. Such systems involve a high degree of opportunism to cope with unpredictable rainfall and fluctuating food distribution. Livestock mobility relieves areas of concentration and allows herds to exploit unevenly distributed resources. A strategy of managing multiple livestock species allows optimal use of these variable grazing resources. These approaches to land use are similar to those recommended by nonequilibrium models, which assume that plant dynamics in arid zones are influenced more by rainfall than by grazing.

1. According to the passage, the equilibrium view of rangelands is defined in terms of the relationship between
- A. distribution of rainfall and patterns of grazing
  - B. predictability of rainfall and fluctuations in food distribution
  - C. mobility of livestock and extent of land degradation
  - D. livestock numbers and availability of food
  - E. number of livestock species and variability of grazing resources

Consider each of the choices separately and select all that apply

2. The passage suggests that proponents of “nonequilibrium models” would agree with which of the following statements about grazing induced land degradation in arid zones?
- A. Traditional pastoral systems of land use have caused land degradation
  - B. Land degradation will occur if livestock numbers exceed the availability of food
  - C. The employment of opportunistic methods of land use can help avoid land degradation.



## Passage 27

Favorable environments do not necessarily lead to the occurrence of plant cultivation. South China is warmer and milder than North China and the Yangtze Basin, with wild rice and highly abundant natural resources. Yet archaeological data indicate that cereal cultivation did not occur in this region until approximately 7,000 to 6,500 years ago. This cultivation was likely a result of cultural contact with and expansion from the Yangtze Basin. Clearly, environmental factors were important for the occurrence of cultivation in China, but were not the absolute determining factors. While incipient cultivation might occur in areas of relatively abundant resources, it may not occur in areas of very abundant resources, such as South China, where foraging might be a more efficient way of life.

1. The author implies which of the following about natural resources in South China prior to 6,500 years ago?
  - A. Their abundance may have actually served to discourage the development of plant cultivation.
  - B. They were not as abundant as most archaeologists have maintained.
  - C. They led indirectly to cultural contact with peoples from the Yangtze Basin.
  - D. Their importance has been downplayed by scholars studying the beginnings of plant cultivation in South China.
  - E. They had little influence on the types of plants that were eventually cultivated in South China.
2. Which of the following can be inferred from the passage about plant cultivation in the Yangtze Basin?
  - A. It occurred in spite of an unfavorable climate.
  - B. It occurred prior to 6,500 years ago.
  - C. It occurred somewhat later than it occurred in North China.
  - D. It occurred largely because of the abundance of wild rice in the region.
  - E. It occurred as a result of cultural contact with South China.

## Passage 28

Many scholars have argued that government investment in manufacturing in the southern United States during the Second World War spurred a regional economic boom that lasted into the postwar period. But much of this investment went to specialized plants, many of them unsuitable for postwar production. Large-scale, wartime government funding led to a massive increase in the number and scale of munitions facilities. By the war's end, 216 munitions establishments costing more than \$3.5 billion had been built, many of them located in the south. Indeed, according to one estimate, more than 70 percent of federally financed manufacturing construction capital in Alabama, Arkansas, Mississippi, and Tennessee went into munitions plants.

Even in the northern regions with strong prewar manufacturing economics, these plants were difficult to deal with once the imperative of war had been removed. In the south few industrialists had the capacity or desire to transform these factories to a peacetime function. Accordingly, at war's end almost all of the southern munitions facilities were shut down, placed on standby, operated at a very low capacity, or converted to nonmanufacturing functions, usually storage. Although some reopened a few years later for use during the Korean War, the impact of the special plants on the South's postwar economy was marginal at best.

1. The primary purpose of the passage is to
  - A. propose an alternative explanation
  - B. challenge a widely held position
  - C. contrast two views of a phenomenon
  - D. explain why a particular claim has been influential
  - E. evaluate evidence used to support a particular view

For the following question, consider each of the choices separately and select all that apply.

2. According to the passage, some southern munitions plants built in the South during the Second World War were

- A. later reopened and used once more as munitions plants
- B. used for nonmanufacturing purposes after the war
- C. originally envisioned as continuing to manufacture munitions at high capacity even after the war had ended

3. In the passage, the mention of “Alabama, Arkansas, Mississippi, and Tennessee” serves primarily to
- A. suggest that some states were better than others at anticipating postwar economic needs
  - B. identify evidence used to support a view held by scholars mentioned at the beginning of the passage
  - C. suggest that federal investment in some kinds of manufacturing was excessive
  - D. identify the states that received the largest allocations of federal funds
  - E. provide information to support a point about the nature of government investment made earlier in the paragraph

## Passage 29

Although the passenger pigeons, now extinct, were abundant in eighteenth- and nineteenth-century America, archaeological studies at twelfth-century Cahokian sites in the present day United States examined household food trash and found that traces of passenger pigeon were quite rare. Given that the sites were close to a huge passenger pigeon roost documented by John James Audubon in the nineteenth century and that Cahokians consumed almost every other animal protein source available, <sup>Q2</sup>**the archaeologists conducting the studies** concluded the passenger pigeon population had once been very limited before increasing dramatically in post-Columbian America. Other archaeologists have criticized those conclusions on the grounds that passenger pigeon bones would not be likely to be preserved. But all the archaeological projects found plenty of bird bones- and even <sup>Q1</sup>**tiny bones from fish**.

1. The author of the passage mentions “tiny bones from fish” primarily in order to
  - A. explain why traces of passenger pigeon are rare at Cahokian sites
  - B. support a claim about the wide variety of animal proteins in the Cahokian diet
  - C. provide evidence that confirms a theory about the extinction of the passenger pigeon
  - D. cast doubt on the conclusion reached by the archaeologists who conducted the studies discussed in the passage
  - E. counter an objection to an interpretation of the data obtained from Cahokian sites
2. Which of the following, if true, would most call into question the reasoning of “the archaeologists conducting the studies”?
  - A. Audubon was unable to correctly identify twelfth-century Cahokian sites
  - B. Audubon made his observations before passenger pigeon populations began to decline.
  - C. Passenger pigeons would have been attracted to household food trash
  - D. Archaeologist have found passenger pigeon remains among food waste at eighteenth-century human settlements
  - E. Passenger pigeons tended not to roost at the same sites for very many generations

## Passage 30

Feminist scholars have tended to regard women in the nineteenth-century United States who elected to remain single as champions of women’s autonomy and as critics of marriage as an oppressive institution. Indeed, many nineteenth-century American women who participated in reform movements or who distinguished themselves as writers and professionals were single. Yet this view of single women tends to distort the meaning of their choices. The nineteenth century saw the elevation of marriage for love as a spiritual ideal. Consequently, it became socially acceptable for women not to marry if such an ideal marriage could not be realized with an available suitor. Thus, many women’s choice to remain single reflected not a negative view of marriage but a highly idealistic one.

1. The author of the passage implies that many nineteenth-century American women chose to remain single because they
  - A. believed that marriage required them to give up much of their autonomy
  - B. had attitudes toward marriage that were influenced by contemporary reform movements
  - C. wanted to take advantage of increasing opportunities to distinguish themselves as professionals
  - D. doubted that their own marriage would live up to their notion of what a marriage ought to be
  - E. had a negative view of marriage fostered by a change in social attitudes during the nineteenth century

For the following question, consider each of the choices separately and select all that apply.

2. The author of the passage suggests that the feminist scholars mentioned in the first sentence distort the meaning of certain nineteenth-century American women’s choices by
  - A. ascribing those choices to a particular attitude toward marriage
  - B. ignoring evidence about single women’s motives for becoming writers or professionals
  - C. overestimating the number of nineteenth-century American women who were single by choice.

### Passage 31

Many researchers attribute the large number of physiological and behavioral similarities between birds and mammals, which have separate evolutionary histories, to endothermy (a thermoregulatory strategy whereby warm body temperature is maintained through internal heat sources). However, Farmer argues that parental care rather than endothermy is the key to understanding the similarities between mammals and birds. According to Farmer, while endothermy provides an explanation for a few similarities, such as the presence of body insulation, endothermy is just one characteristic among many related to parental care. The two purported advantages of endothermy that have been most frequently cited by researchers are an expanded range of inhabitable environments and the ability to sustain vigorous exercise. But metabolism has to increase substantially (at great energy cost) therefore conferring any significant thermoregulatory advantage in terms of the former, and there is no causal biological linkage to explain why endothermy would be essential to sustain exercise. Farmer argues instead that endothermy evolved as a means to control incubation temperature and that the ability to sustain exercise evolved separately, as a means to improve a parent's ability to forage and provision its young.

1. The primary purpose of the passage is to
  - A. present a scientific theory that challenges a widely held theory
  - B. summarize the basis for a large body of scientific research
  - C. defend an established scientific theory in light of recent criticism
  - D. express skepticism about the results obtained by a particular researcher
  - E. compare the results of two particular scientific studies
2. Which of the following best characterizes the organization of the passage as a whole?
  - A. A position is noted, an alternative to that position is introduced, and then several points in support of the alternative are discussed.
  - B. A theory is discussed, an inconsistency within that theory is illustrated, and then a recommendation is made for further inquiry.
  - C. Certain research results are described, the significance of those results is explained, and then a novel interpretation of those results is summarized.
  - D. A question is posed, a possible answer to that question is suggested, and then evidence is provided to corroborate that answer.
  - E. A debate is outlined, contrasting viewpoints within the debate are discussed, and then one viewpoint is demonstrated to be correct.
3. According to the passage, Farmer concedes that endothermy provides an explanation for which of the following features shared by birds and mammals?
  - A. The ability to forage
  - B. The ability to sustain exercise
  - C. The instinct to care for offspring
  - D. Flexibility in habitat usage
  - E. Body insulation

### Passage 32

Prominent among theories of the function of sleep is Meddis' immobilization hypothesis, which holds that sleep, rather than serving a restorative function, plays a protective role during times that animals cannot be usefully engaged in other activities. Meddis reasoned that animals not immediately threatened by predators would be safer if they passed the time sleeping. **Sleep would prevent an animal from moving or responding to nonthreatening stimuli in ways that might attract the attention of predators.**

However, that hypothesis cannot easily explain why one often observes a rebound in sleep time or intensity following a period of sleep deprivation. Neither does the hypothesis explain the existence of various states of sleep, which themselves may be associated with different functions.

For the following question, consider each of the choices separately and select all that apply.

1. According to the passage, the immobilization hypothesis fails to account for which of the following facts?
  - A. That sleep does not appear to be a uniform and unchanging state
  - B. That under certain conditions animals appear to need more sleep than usual
  - C. That animals rarely sleep when a predator has been detected nearby
2. In the context of the passage as a whole, the highlighted portion serves primarily to
  - A. present the thinking that led scientists to qualify a widely accepted view
  - B. describe the basis on which a hypothesis was advanced
  - C. illustrate the kind of reasoning that is applied in a branch of science
  - D. explain how a hypothesis can be tested empirically
  - E. relate the analysis that refined a tentative explanation

### Passage 33

In 1755 British writer Samuel Johnson published an acerbic letter to Lord Chesterfield rebuking his patron for neglecting and declining further support. Johnson's rejection of his patron's belated assistance has often been identified as a key moment in the history of publishing, marking the end of the culture of patronage. However, **patronage had been in decline for 50 years, yet would survive, in attenuated form, for another 50.** Indeed, Johnson was in 1762 awarded a pension by the Crown—a subtle form of sponsorship, tantamount to state patronage. The importance of Johnson's letter is not so much historical as emotional; it would become a touchstone for all who repudiated patrons and for all who embraced the laws of the marketplace.

1. The author of the passage mentions Johnson's 1762 pension award in order to
  - A. Reveal that Johnson remained consistent in his rebuke of Lord Chesterfield well after 1755
  - B. Provide evidence for a general trend in the later half of the eighteenth century of private patronage's being replaced by state sponsorship
  - C. Situated the debate over the end of patronage within the wider realm of eighteenth-century economic history
  - D. Suggest that Johnson's letter to Chesterfield was noticed by the crown only years after it was published
  - E. Emphasize that patronage still helped support Johnson's writing after his letter to Chesterfield
2. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole?
  - A. It points out the most obvious implications of Johnson's letter to his patron
  - B. It suggests a motivation for Johnson's rejection of Chesterfield's patronage
  - C. It provides information that qualifies the assertion that Johnson's letter sharply defined the end of a publishing era
  - D. It provides a possible defense for Chesterfield's alleged neglect of Johnson
  - E. It refutes the notion that patrons are found primarily among the nobility
3. The author of the passage mentions Johnson's 1762 pension award in order to
  - A. provide a specific example of patronage's surviving into the second half of the eighteenth century
  - B. emphasize that patronage still helped support Johnson's writing after his letter to Chesterfield
  - C. provide evidence for a general trend in the later half of the eighteenth century of private patronage's being replaced by state sponsorship
4. Which of the following statements about literary patronage may be inferred from the passage?
  - A. It was strongly defended by most patrons.
  - B. It was regulated by the state in Britain after 1762.
  - C. It had largely fallen out of favor by 1800.

### Passage 34

Was resource intensification—an increase in labor and time devoted to subsistence activities in order to increase food yields—by Dorset Paleo-Eskimos and Recent Indians on the island of Newfoundland simply a response to population pressure? Not exactly. On Newfoundland, population pressure did not result from a steadily growing resident population but, rather, from the arrival and lingering presence of new and significantly different populations. Newfoundland’s hunter-gatherer populations—both resident and newcomer—adjusted to the presence of other populations through niche differentiation. Building on a tradition that emphasized marine resources, Dorset Paleo-Eskimos intensified their harvest of seals in response to the arrival of Recent Indians in the first few centuries A.D. **Recent Indians who were more familiar with broad-based, interior-maritime adaptation, intensified this strategy to cope with the Dorset.**

1. According to the passage, which of the following resulted from the arrival of the Recent Indians?
  - A. The Dorset Paleo-Eskimos were forced to compete with the Recent Indians for a limited supply of seals.
  - B. The Dorset Paleo-Eskimos spent more time harvesting seals than they had in the past.
  - C. The Dorset Paleo-Eskimos increased the amount of labor and time devoted to defending their territory.
  - D. The Dorset Paleo-Eskimos began to adopt new subsistence strategies they learned from the Recent Indians.
  - E. The previously steady growth of the Dorset Paleo-Eskimo population came to a halt.
2. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole?
  - A. It points out a flaw in a theory discussed earlier in the passage.
  - B. It demonstrates the need for additional research on a phenomenon mentioned earlier in the passage.
  - C. It underscores the importance of a trait mentioned earlier in the passage.
  - D. It supports an assertion made earlier in the passage.
  - E. It questions the evidence for a tradition mentioned earlier in the passage.

### Passage 35

In 1919 Britain experienced its largest ever reduction in industrial working hours, to 48 per week. In Dowie’s view the 48-hour week played a central role in Britain’s poor economic performance during the 1920s. Dowie argued that the reduction, together with rapid wage growth, drove up prices. However, Greasley and Oxley found that the First World War (1914-1918) constituted a more powerful negative macroeconomic shock to Britain’s competitiveness. And Scott argues that Dowie’s thesis ignores considerable evidence that hourly productivity improves when hours are reduced from a high base level. Crucially, Dowie’s thesis does not acknowledge that hours were reduced to around 48 hours a week for industrial workers in most industrialized nations at this time so far—undermining any potential impact of reduced hours on industrial productivity relative to other nations.

1. Which of the following, if true, provides the strongest support for Scott’s argument?
  - A. Companies have generally found that part-time employees are less productive than full-time ones.
  - B. When the total number of hours worked at a company increases owing to the addition of more employees, the usual result is improved productivity at the company.
  - C. When the total hours worked by all employees per week in two companies are equivalent, hourly productivity tends to be equivalent as well.
  - D. Companies whose employees usually work a high number of hours tend to have greater total costs than do similar companies whose employees work fewer hours.
  - E. Companies have found that total output per employee is not necessarily changed by reductions in the number of hours worked per employee.

2. It can be inferred from the passage that in the view of Greasley and Oxley
- A. a reduced workweek was ultimately beneficial to employees
  - B. the economic effects of the reduction in working hours in 1919 were brief
  - C. Britain became less economically competitive in the 1920s
  - D. reduced working hours were the primary cause of the economic changes observed by Dowie
  - E. the changes in economic performance in Britain in the 1920s were unforeseen

### Passage 36

The finding that there were rock-melting temperatures on asteroids for sustained periods is puzzling: asteroids' heat source is unknown, and unlike planet-sized bodies, such small bodies quickly dissipate heat. Rubin suggests that asteroids' heat could have derived from collisions between asteroids. Skeptics have argued that a single impact would raise an asteroid's overall temperature very little and that asteroids would cool too quickly between impacts to accumulate much heat. However, these objections assumed that asteroids are dense, solid bodies. A recent discovery that asteroids are highly porous makes Rubin's hypothesis more plausible. When solid bodies collide, much debris is ejected, dissipating energy. Impacts on porous bodies generate less debris, so more energy goes into producing heat. Heat could be retained as debris fall back into impact craters, creating an insulating blanket.

1. The passage suggests that one factor that has made it difficult to account for the temperatures once reached by asteroids is
- A. a miscalculation of the frequency of asteroid collisions
  - B. a misconception about asteroids' density
  - C. a mistaken assumption about what the heat source of the asteroids was
  - D. an underestimation of the rate at which small bodies lose heat
  - E. an erroneous view of how asteroids were formed

For the following question, consider each of the choices separately and select all that apply.

2. It can be inferred from the passage that Rubin disagrees with skeptics mentioned in the passage about which of the following?
- A. Whether porous bodies generate less debris when struck than do solid bodies
  - B. The temperatures asteroids would have to reach for their rocks to have melted
  - C. The likely effect of impacts on asteroids' temperatures

### Passage 37

Unlike herbivores and omnivores, predators have traditionally been thought not to balance nutrient intake because of the assumption that animal tissue as a food source varies little and is nutritionally balanced. But chemical analysis of invertebrate prey reveals remarkable variation in nutrient composition among species; even within species, nutrient composition may vary considerably. Greenstone suggested that predators may select food items according to their nutrient contents. Jensen *et al* (2011) have shown experimentally that even sit-and-wait invertebrate predators with limited mobility can work to address nutrient deficiencies. The wolf spider, for instance, has been shown to regulate nutrient intake by extracting more dry mass from a prey item if it contains a higher proportion

of a nutrient that was deficient in the previous prey.

1. The passage supplies information for answering which of the following questions?
  - A. Do invertebrate predators with full mobility address nutrient needs in the same fashion as sit-and-wait invertebrate predators with limited mobility?
  - B. Why would there be a considerable variation in nutrient composition within prey of a given species?
  - C. Is all of the nutrient content of invertebrate prey contained in the dry mass?
  - D. What would a wolf spider do if a fly it was eating contained a higher proportion of a certain nutrient than was present in the spider's recent prey?
  - E. How is a wolf spider able to determine that some prey it is eating contains a higher proportion of a nutrient that was deficient in the previous prey?
2. Which of the following best describes the organization of the passage as a whole?
  - A. A phenomenon is described, and an interpretation is offered.
  - B. A claim is made, and the corroborating evidence is evaluated.
  - C. A hypothesis is presented and undermined by recent findings.
  - D. A contrast is noted and shown to be specious based on recent findings.
  - E. A series of assumptions is presented and shown to be based on sound reasoning.

### Passage 38

Having a larger assortment to choose from increases consumers' expectations about matching their preferences. The heightened expectations seem logical, since assortments containing more or more varied items should increase the degree to which preferences can be matched. In practice, however, as assortment size increases, the degree to which consumers realize better preference matches often rises relatively little. Larger assortments may not actually offer more variety, the market may simply not supply an envisioned offering, or in the absence of sophisticated search tools, consumers may miss a better preference match even if it is available. Therefore, larger assortments can increase the likelihood that expectations will not be met, **leaving consumers less satisfied with options chosen from larger rather than smaller assortments.**

1. In the highlighted portion of the passage, the author assumes that
  - A. consumers' attitude toward the assortment of choices they are presented with depends almost exclusively on the size of the range
  - B. consumers who have clear preferences make their choices more quickly than those whose preferences are relatively vague
  - C. consumers' anticipation of meeting specific expectations directly affects their satisfaction with a selected option
  - D. consumers presented with an assortment of choices often adjust the preferences they had beforehand
  - E. consumers presented with a larger assortment of choices often make their decisions too quickly
2. Which of the following best describes the function of the first sentence in the author's argument as a whole?
  - A. It states a premise on which the author's conclusion is based
  - B. It provides information to support the inference made in the following sentence
  - C. It introduces a concept that the author proves is illogical
  - D. It summarizes a position that the author proceeds to dispute
  - E. It presents the phenomenon the argument is intended to explain

### Passage 39

Astronomers who study planet formation once believed that comets—because they remain mostly in the distant Oort cloud, where temperatures are close to absolute zero—must be pristine relics of the material that formed the outer planets. The conceptual shift away from seeing comets as pristine relics began in the 1970s, when **laboratory simulations** revealed there was sufficient ultraviolet radiation reaching comets to darken their surfaces and there were sufficient cosmic rays to alter chemical bonds or even molecular structure near the surface. Nevertheless, astronomers still believed that when a comet approached the Sun—where they could study it—the Sun's intense heat would remove the



corrupted surface layer, exposing the interior. **About the same time, though, scientists realized comets might contain decaying radioactive isotopes that could have warmed cometary interiors to temperatures that caused the interiors to evolve.**

1. According to the passage, astronomers recognize which of the following as being liable to cause changes to comets?

- A. cosmic rays
- B. radioactive decay
- C. ultraviolet radiation

2. According to the passage, astronomers' belief that comets are pristine relics was

- A. overturned by analysis of what happens when comets approach the Sun
- B. supported by what observations revealed about the composition of the outer planets
- C. based on consideration of the conditions that prevail where comets are located

3. The author suggests that the realization described in the final sentence of the passage had which of the following effects?

- A. It introduced a new topic for study by astronomers interested in planetary formation.
- B. It led astronomers to adopt a number of different strategies in trying to determine the composition of cometary interiors
- C. It called into question an assumption that astronomers had made about comets
- D. It cast doubt on astronomers' ability to study the interior parts of comets.
- E. It caused astronomers to revise their account of the composition of the outer planets.

For the following question, consider each of the choices separately and select all that apply.

4. It can be inferred that the author would agree with which of the following statements about the "laboratory simulations"?

- A. The simulations showed that despite the low temperatures in the Oort cloud, there was sufficient energy there to alter comet
- B. Astronomers were initially reluctant to accept what simulation showed about the composition of comets
- C. The simulations themselves did not eliminate the possibility that comets contain pristine relics of material from the early solar system.

#### Passage 40

Pueblo Bonito, the most impressive of the "great houses" at the prehistoric Chaco Canyon site in New Mexico, comprised over 600 rooms and 4 to 5 stories. Traditional interpretations have viewed the great houses as almost entirely residential, with some archaeologists estimating the population of Pueblo Bonito at 1,200. But Windes recently challenged this view by pointing out the paucity of hearths recorded during the excavation of Pueblo Bonito, which revealed only 3 upper-story hearths, in contrast to 59 ground-floor hearths: habitation rooms would have required hearths for cooking and heat. It is possible, however, that the collapse of upper-story floors disturbed evidence of upper-story hearths to such an extent that they were not revealed by early excavations such as those conducted by Pepper's field crews in the 1890s and Judd's in the 1920s. Additionally, reliance on room features for early population estimates is complicated by the Chacoan's later remodeling, especially given Judd's disinclination to destroy later structures and features to expose earlier ones. The failure of early excavations to strip off intact floors may have concealed evidence of hearths in upper-story rooms.

1. The author of the passage would be most likely to agree with which of the following statements about Windes' argument?

- A. It relies on evidence that is irrelevant to the examination of structures as large as Pueblo Bonito
- B. It fails to acknowledge crucial evidence from great houses other than Pueblo Bonito

- C. It fails to incorporate crucial evidence from excavations before the 1920s.
  - D. It is based on a false notion about the significance of hearths.
  - E. It is based on evidence that may be incomplete.
2. It can be inferred from the passage that Windes would be most likely to agree with which of the following statements about room usage in Pueblo Bonito?
- A. Upper-story rooms were rarely used as storage areas.
  - B. Rooms that were remodeled were most likely to have been residential rooms.
  - C. The majority of residential rooms were located on the ground floor.
  - D. Early excavations of Pueblo Bonito disturbed much of the evidence indication room usage.
  - E. Upper-story rooms with hearths were probably used for different purposes than were lower story rooms with hearths.
3. Which of the following can be inferred about the excavation work performed by Judd's field crew?
- A. It did not unearth many room features that existed prior to Chacoan remodeling.
  - B. It did not unearth any evidence of upper-story hearths.
  - C. It revealed only habitation rooms.
  - D. It resulted in the collapse of some room features and upper-story floors.
  - E. It confirmed traditional population estimates for Pueblo Bonito.

#### Passage 41

Many Anglo writers of the nineteenth and early twentieth centuries portrayed the area that eventually became New Mexico as virgin territory without traditions and roots. But for Fabiola Cabeza de Baca, this landscape meant a long tradition of Hispanic families not only tied to the land but nourished by it.

Cabeza de Baca's *We Fed Them Cactus* recounts the changes endured by her family because of their dependence on the land. Cabeza de Baca contrasts Anglo writers' perception of the "plains" with Hispanic families' perception of the land as "fields" of herbs and cactus, domesticated and accessible. Her family's relationship to land, weather, and landscape is all important. She writes, "Rain for us made history .... The droughts were as impressed on our souls as the rains. When we spoke of the Armistice of World War I, we always said, 'The drought of 1918 when the Armistice was signed.'"

- 1. The author of the passage is primarily concerned with
  - A. depicting a way of life
  - B. presenting a Hispanic writer's point of view
  - C. summarizing the plot of a literary work
  - D. appraising the work of a Hispanic writer
  - E. comparing dissimilar styles of writing
- 2. The author of the passage mentions "plains" and "fields" primarily in order to
  - A. provide a contrast between fictionalized and historical events.
  - B. illustrate the eccentricities of Cabeza de Baca's writing style.
  - C. contrast the land owned by Anglo settlers with that owned by Cabeza de Baca's family.
  - D. portray the differences between the attitudes of Anglo and of Hispanic writers toward the landscape
  - E. emphasize the changes that occurred to the landscape during Cabeza de Baca's lifetime.

#### Passage 42

Zora Neale Hurston's 1942 autobiography, *Dust Tracks on a road*, has received some of the most negative criticism of any of Hurston's books. Among critics' complaints—some from Hurston's warmest admirers—is the work's fragmentary nature, a nature which, while present in other Hurston texts, including the universally acclaimed novel *Their Eyes Were Watching God*, is particularly conspicuous in *Dust Tracks*. The complaints about *Dust Tracks* are valid if one insists on the cardinal conventions of autobiography: traditional autobiographical structure and formal organization, and a focused projection of the autobiographical persona. But *Dust Tracks* portrays a persona that resists reduction to a coherent unity—a person of many moods who is in tension with the world in which she

moves. In order to correspond better to this persona, *Dust Tracks* focuses on the fragmented life of Hurston's imagination: the psychological dynamics of her family, community stories, and characters of friends.

1. The primary purpose of the passage is
  - A. explain why *Dust Tracks* has been less well received than other similarly structured works by Hurston.
  - B. argue that a supposed deficiency in *Dust Tracks* actually contributes to the work's presentation of its subject.
  - C. compare the critical reaction to *Dust Tracks* with the critical reaction to *Their Eyes Were Watching God*.
  - D. point out specific similarities between the structure of *Dust Tracks* and the structure of Hurston's other works.
  - E. suggest that some critics' evaluations of *Dust Tracks* is influenced by their rejection of certain conventions of autobiography
2. The author of the passage suggests that critics' complaints about the structure of *Dust Tracks* are
  - A. not valid, because *Dust Tracks* should not be judged by the standards of conventional autobiography.
  - B. unjustified, because they have not been directed at other Hurston texts that are similarly structured.
  - C. justified, given the extent to which *Dust Tracks* is autobiographical.
  - D. inexplicable, given the critical response to *Their Eyes Were Watching God*
  - E. compelling, because Hurston's warmest admirers have complained the most strenuously.
3. Which of the following best describes the organization of the passage?
  - A. A situation is presented and an explanation of how that situation developed is offered.
  - B. Two opposing points of view are contrasted and their relative merits are evaluated.
  - C. An orthodox view is discussed, a challenge to it is analyzed, and the original view is affirmed.
  - D. A point of view is described and an analysis challenging that point of view follows.
  - E. A dispute is analyzed and several points of agreement between the two sides are identified.

### Passage 43

Irish traditional music has benefited from state-sponsored performance competition. Competitions promote music instruction, motivate young musicians to practice, and encourage informal gatherings where musicians learn from one another. Winning an All-Ireland championship carries great national and international prestige and can help launch a professional music career. However, some musicians express concern about competitions' **long-range effects**. Irish traditional music is based on diverse, individual interpretations of melodies, while objective judgment relies on constant, clearly defined standards. Competitions may have a homogenizing effect because competitors are required to perform certain nationally recognized types of tunes, such as jigs and reels, and are not allowed to play certain more obscure regional musical forms. Some also feel that competitions encourage performers to gravitate toward a flashy, performance-oriented style that is authentic only to certain regions.

1. It can be inferred that the "long-range effects" that some musicians see as cause for concern include which of the following?
  - A. The dilution of Ireland's musician's tradition through the introduction of modern musical influences.
  - B. The encouragement of idiosyncratic interpretations of tradition melodies
  - C. A weakening of the standards by which performances of traditional music are judged
  - D. A loss of interest in traditional music among young people
  - E. A decline in the diversity of Irish music
2. The passage suggests that some critics of state-sponsored competitions would probably endorse which of the following changes in the way competitions are conducted?
  - A. Amateur and professional musician would be allowed to compete for the same awards.
  - B. Judging standards would not favor a flamboyant performance of a particular tune if that style did not reflect the performance traditions of the tune's region of origin.
  - C. All competitors would be required to play the same set of tunes so that judges would not be influenced by individual's choice of pieces.
  - D. Competition judges would be required to have proficiency in the playing of several different

traditional Irish instruments.

E. Competitors would be evaluated less on their technical ability than on the expressiveness of their performance.

#### Passage 44

Benjamin Franklin is portrayed in American history as the quintessential self-made man. In “Self-reliance”, Emerson asks, “Where is the master who could have instructed Franklin...?” In fact, Franklin took instruction widely, and his scientific work was highly collaborative. Friends in England sent equipment needed for his electrical experiments, others, in Philadelphia, helped him set up his workshop there. Philip Syng constructed a device for generating electrical charges, while Tomas Hopkinson demonstrated the potential of pointed conductors. Franklin, in addition to being the group’s theoretician, wrote and published its results. **His fame as an individual researcher is partly a consequence of the shorthand by which when one person writes about a group’s discoveries, history sometimes grants singular credit for collective effort.**

1. Which of the following best describes the function of the highlighted sentence?

- A. It states a viewpoint about Franklin with which the author disagrees.
- B. It introduces new evidence about Franklin’s role in the collaborative process.
- C. It explains Franklin’s reputation in terms of a broad scholarly phenomenon.
- D. It emphasizes the extent to which Franklin relied on others in his workshop.
- E. It describes Franklin’s approach to writing scientific results.

2. Emerson is mentioned in the passage primarily to

- A. Identify the origin of a particular understanding of Franklin
- B. Elaborate on a view of Franklin that the author takes issue with
- C. Point to a controversial claim about Franklin’s historical legacy
- D. Introduce the question of who Franklin’s main scientific influences were
- E. Suggests that Franklin was resistant to collaboration with other scientists

#### Passage 45

Most twentieth-century critics read Melville’s *Pierre* as a parody of the sentimental novel. They point to its overblown prose and hyperbolic rendering of domestic manners to argue that *Pierre* is a barbed critique of bourgeois politesse. A variation of this reading stresses Melville’s strategic sentimentalism, positing the *Pierre*’s romantic-familial plot was meant to engage superficial readers, while the book’s deeper elements were aimed at his true audience. Both readings emphasize Melville’s aloofness and authorial control, imagining the writer **by turns mocking and hoodwinking a feckless readership**. Such a strategy, however, implies a cool detachment of the artist from his creation, when in fact Melville is never more personally involved or more in earnest than he is in *Pierre*.

For the following question, consider each of the choices separately and select all that apply.

1. According to the passage, twentieth-century critics cite which of the following in support of the idea that in *Pierre*, Melville is “by turns mocking and hoodwinking a feckless readership”?

- A. Melville’s personal involvement in his creation
- B. Melville’s use of an extravagant writing style
- C. Melville’s exaggerated depiction of bourgeois society

2. Select the sentence that presents a reason for questioning twentieth century reading of *Pierre*.

#### Passage 46

What accounts for the low-lying, flat surface of Mars’s north? On Earth’s surface higher and

lower lying areas have different types of crust, thin and dense, which is pulled toward Earth's center more strongly by gravity, and the planet's water naturally comes to sit over it, creating oceans. The processes that generate this oceanic crust drive plate tectonics.

Is Mars's north similarly characterized by a sort of crust different from other areas of the planet? Some researchers do see signs of tectonic activity surrounding the northern basin that suggest that it was created through the formation of new crust, like ocean basins on Earth. However, McGill points to northern bedrock structures that predate the features said to mark the start of the tectonic process. McGill instead believes that through some novel mechanism the ancient surface sank to its current depth as a single unit. This would explain why features around the basin's edge, which would have formed as the surface dropped, seem to be younger than structures at its floor.

The third possibility is that the northern lowlands result from impacts. Some researchers suggest they formed as a series of big overlapping impact craters. Others, arguing that the odds against such a pattern of impacts are large, postulate a single system now contains.

1. The primary purpose of the passages is to
  - A. explore an analogy between aspects of the geology of Mars and the geology of Earth
  - B. describe how a certain feature of Mars's surface formed
  - C. point out the effect that new data has had on a scientific investigation
  - D. summarize potential explanations of a large scale geological feature
  - E. present the rationale for a scientist's theory and expose some of its weakness
2. Which of the following can be inferred from the passage about geological features on Earth?
  - A. The relative elevation of the lowest-lying regions of the crust arises in part from forces generated within the planet.
  - B. The difference in elevation between the ocean basins and their surroundings is greater than the difference between Mars's northern basin and its surroundings.
  - C. The formation of low-lying areas proceeds by a different process than the one that created Mars's northern basin.
  - D. The weight of the oceans does not affect the depth of the ocean basins
  - E. The proportion of the crust that is oceanic crust is increasing.
3. As presented on the passage, McGill's account of the formation of Mar's northern basin differs from the others mentioned in that it alone
  - A. explain the formation of certain northern bedrock features
  - B. does not specify the force that caused the northern basin to be lower than its surroundings
  - C. takes the northern basin to be a landform that is not analogous to any found on Earth
  - D. denies that features around the northern basin are the result of tectonic activity
  - E. attributes the creation of the northern lowlands to processes occurring within the planet

#### Passage 47

The importance of the relatively docile eland (antelope) in the diet of Middle Stone Age (MSA) people contrasted with the increased importance of aggressive wild pigs to Late Stone Age hunters, a contrast that indicates that the MSA hunters were less proficient than LSA hunters. This has been used to support the view that neurological changes dramatically increased the behavioral sophistication of anatomically modern humans. However, alternative hypotheses have not been sufficiently examined to warrant this interpretation. The possibility that economic motives drove prey selection must first be excluded. Since eland are very storable, it would be a favored prey animal whether or not hunting strategies were sophisticated enough to tackle more aggressive prey.

1. The primary purpose of the passage is to
  - A. resolve a debate about the advantages and disadvantages of certain Stone Age prey
  - B. question a position on apparent changes in Stone Age hunting patterns
  - C. critique the work of various researchers of Stone Age hunters
  - D. suggest a reason that Late Stone Age hunters were more proficient than their predecessors
  - E. provide evidence of increased behavioral complexity in Stone Age hunters over time
2. Select the sentence in which the author explains an alternative to greater hunting proficiency as an explanation for prey selection.

## Passage 48

Victorian literature is much preoccupied with the social and moral effects of nineteenth-century capitalism, and literary critics long tended to address this preoccupation from an explicitly anticapitalist point of view, focusing particularly on Victorian novels' depictions of poverty, economic disparity, exploitation, and greed. However, in 1990s, scholars' inclination to take an explicitly critical stance toward capitalism in their studies of literature diminished, and a new body of scholarship emerged that is devoted to exploring, less polemically, the many ways in which literature reflects Victorian capitalism and its impact on individual lives.

This new work has caused some astonishment. In one essay, Rose remarked, "We are witnessing the emergence of something quite unprecedented—a capitalist criticism" and then suggested that literary criticism concerned with aspects of capitalism but not explicitly anticapitalist must be implicitly procapitalist. Yet Rose's response derives more from the assumption that an illuminating analysis of literature will, of necessity, entail a critique of capitalism than from evidence in the works Rose discusses, which treat capitalism simply as a fact of life. Insofar as we can define a new movement within literary studies, it would be misleading to call it capitalist criticism. Rather, much of this new work is looking to uncover neglected aspects of Victorian culture.

1. The author would be most likely to agree with which of the following statements about the "preoccupation"?

- A. It is an important aspect of Victorian literature that was largely neglected by scholars until the 1990s
- B. It is a less dominant aspect of Victorian literature than has been claimed by critics who take an explicitly anticapitalist position in their work
- C. It has been treated somewhat dismissively by critics who do not regard an examination of capitalism as an important aspect of literary criticism
- D. It is evident in a more diverse range of representations of capitalism in Victorian fiction than many critics have acknowledged.
- E. It has mistakenly been ascribed to some Victorian authors whose views of capitalism diverge from those of anticapitalist literary critics

2. Which of the following can be inferred from the passage about the "new body of scholarship"?

- A. It takes no interest in the social and moral effects of nineteenth-century capitalism.
- B. It is less methodologically sophisticated than the body of scholarship that it has superseded.
- C. It involved a reinterpretation of representations of economic disparity and poverty in Victorian literature.
- D. It emerged in response to the availability of new evidence about nineteenth-century economic conditions.
- E. It has resulted in a broader consensus among scholars of Victorian literature than had existed prior to the 1990s.

3. It can be inferred that Rose would disagree with the author of the passage about whether

- A. The movement that emerged in literary studies in the 1990s was motivated by anticapitalist sentiment
- B. Victorian authors displayed ambivalence about capitalism in their works
- C. recent literary criticism implicitly makes value judgments about Victorian capitalism
- D. literary representations of economic conditions offer reliable evidence about past social conditions
- E. literary critics should be concerned with the social conditions under which literary works are produced

## Passage 49

There have long been dead zones—water too low in oxygen to sustain most forms of life—in the Gulf of Mexico, which receives the waters of the Mississippi River. Scientists studied sediment cores from areas where the gulf's most recent dead zone occurred. The scientists dated the sediment and counted species of foraminifera (marine protozoans) in the sediment; these species thrive in low-oxygen waters. As far back as 1823, the foraminifera thrived especially during Mississippi River flood years (during which nutrients levels increase), suggesting that nutrients in floodwaters can trigger low-oxygen water. **The foraminifera in the core samples were most abundant after 1950, when farmers**

**began using some fertilizer, which is rich in nutrients.** Researchers believe that increased use of fertilizer leads to more-extreme dead zones.

1. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole?

- A. It reconciles two opposing theories that were discussed earlier in the passage.
- B. It suggests what the initial impetus was for the studies mentioned earlier in the passage.
- C. It undermines a hypothesis that was presented in the preceding sentence.
- D. It describes a problem with the methodology of the studies discussed in the passage.
- E. It provides evidence supporting the belief mentioned in the final sentence of the passage.

For the following question, consider each of the choices separately and select all that apply.

2. It can be inferred from the passage that the “researchers” would agree with which of the following statements about the use of fertilizer?

- A. If farmers near the Mississippi River decreased the amount of fertilizer that they used, the severity of the dead zones could be diminished.
- B. If farmers near the Mississippi River continue their dependence upon fertilizers, foraminifera population will eventually decline.
- C. If farmers near the Mississippi River stopped using fertilizers altogether, there would no longer be dead zones.

### Passage 50

Biologists know that some marine algae can create clouds by producing the gas dimethyl sulphide (DMS), which reacts with oxygen in air above the sea to form solid particles. These particles provide a surface on which water vapor can condense to form clouds. Lovelock contends that this process is part of global climatic-control system. According to Lovelock, Earth acts like a super organism, with all its biological and physical systems cooperating to keep it healthy. He hypothesized that warmer conditions increase algal activity and DMS output, seeding more clouds, which cool the planet by blocking out the Sun. Then, as the climate cools, algal activity and DMS level decrease and the cycle continues. In response to biologists who question how organisms presumably working for their own selfish ends could have evolved to behave in a way that benefits not only the planet but the organisms as well, cooling benefits the algae, which remain at the ocean surface, because it allows the cooled upper layers of the ocean to sink, and then the circulating water carries nutrients upward from the depths below. Algae may also benefit from nitrogen raining down from clouds they have helped to form.

1. According to the passage, which of the following occurs as a result of cooling in the upper layers of the ocean?

- A. The concentration of oxygen in the air above the ocean’s surface decreases.
- B. The concentration of DMS in the air above the ocean’s surface increases.
- C. The nutrient supply at the surface of the ocean is replenished.
- D. Cloud formation increases over the ocean.
- E. Marine algae make more efficient use of nutrients.

2. Which of the following is most similar to the role played by marine algae in the global climate control system proposed by Lovelock?

- A. A fan that continually replaces stale air in a room with fresh air from outside.
- B. A thermostat that automatically controls an air-conditioning system.
- C. An insulating blanket that retains heat.
- D. A filter used to purify water.
- E. A dehumidifier that constantly removes moisture from the air in a room.

3. The passage mentions the possible benefit to algae of nitrogen falling down in the rain most likely in order to

- A. Provide support for Lovelock’s response to an objection mentioned in the passage.
- B. Suggest that the climatic effects of DMS production have been underestimated.
- C. Acknowledge that Lovelock’s hypothesis is based in part on speculation.
- D. Demonstrate that DMS production alters the planet in more than one way.

- E. Assert that algae are the sole beneficiaries of DMS production.
4. Which of the following best describes the organization of the passage?
- A. A question is posed, and several possible answers to the question are introduced and evaluated.
  - B. A prediction is made, and certain factors that influenced that prediction are considered.
  - C. A sequence of events is outlined, and a possible cause for the sequence is offered.
  - D. A phenomenon is described, a theory about the significance of the phenomenon is offered, and a reservation about that theory is addressed.
  - E. A debate is summarized, the strengths and weaknesses of each position are described, and an assessment of the defensibility of each is made.
5. It can be inferred from the passage that Lovelock thinks that biologists who question his hypothesis about cyclical DMS output and algal activity make which of the following errors?
- A. They do not recognize the benefits that Earth receives from the activity.
  - B. They exaggerate the rate at which nitrogen falls from the clouds.
  - C. They assume that the algae remain near the ocean surface throughout the cycle.
  - D. They overlook the benefit that the algae receive from the formation of clouds.
  - E. They fail to recognize changes in surface water temperature that are caused by algae clouds.
6. The primary purpose of the passage is to
- A. explain the role played by temperature in the stimulation of DMS production by marine algae
  - B. outline the sequence of events that occurs during the process of cloud formation caused by algal activity
  - C. describe a dispute about the role played by marine algae in certain instances of cloud formation
  - D. propose a way in which scientists might be able to understand the effects of clouds on marine algae
  - E. discuss a theory regarding the function of DMS production by marine algae

### Passage 51

When Earth formed 4.6 billion years ago, the Sun burned only 70 percent as brightly as it does today. Yet Geologic record contains no evidence for widespread glaciation until 2.3 billion years ago. Sagan and Mullen suggested in the 1970s that ammonia, a greenhouse gas, warmed early Earth's atmosphere, but subsequent research showed that the Sun's ultraviolet rays rapidly destroy ammonia in an oxygen-free environment, such as that of early Earth. Many scientists now attribute much of the warming of early Earth to oxygen-intolerant microbes—methanogens—that produce the greenhouse gas methane. **The methanogen hypothesis could help to explain the first global ice age: 2.3 billion years ago, Earth's atmosphere began to fill with oxygen produced by other microbes—cyanobacteria—causing methanogens to decline rapidly.**

1. Which of the following best describes the function of the highlighted sentence?
- A. It refutes the possibility of a connection between two events previously thought to be related.
  - B. It describes how a hypothesis might account for the timing of a phenomenon described earlier in the passage
  - C. It presents evidence that casts doubt on a statement made in the first sentence of the passage
  - D. It clarifies a distinction between two related hypotheses
  - E. It introduces findings that challenge a dominant explanation for a particular phenomenon
2. Which of the following can be inferred from the passage about methanogens?
- A. Methanogens must have appeared on Earth later than 2.3 billion years ago.
  - B. Methanogens must have been much more prevalent in some regions of the early Earth than in others.
  - C. Methanogens produce a greenhouse gas that is more susceptible to destruction by the Sun's ultraviolet rays than is ammonia.
  - D. Methanogens could not have thrived in early Earth's atmosphere without the presence of ammonia.
  - E. Methanogens would have had a less significant effect on early Earth's atmosphere if they had evolved after the appearance of cyanobacteria.



## Passage 52

Some researchers claim that cetaceans—whales and dolphins—have culture, which the researchers define as the ability to learn from one another. Skeptics, however, demand clear evidence that cetaceans can acquire new behaviors through some form of social learning, preferably clear-cut instances of imitation or teaching. But such evidence is difficult to obtain. While few people doubt that captive cetaceans are adept at imitation or that they reproduce behaviors taught by researchers, biologists seeking insight into cetaceans' behavior in their natural habitats must rely on deduction rather than experiments. **If members of a particular group share behaviors that do not result from genetic inheritance or environmental variation, then they have almost certainly learned them by watching, following, or listening to other animals.**

1. Which of the following best describe the function of the highlighted sentence?
  - A. It identifies a factor that complicates biologists' ability to draw conclusions about the behavior of cetaceans in their natural environments.
  - B. It illustrates the kind of deduction mentioned in the preceding sentence.
  - C. It explains why skeptics have remained unpersuaded by evidence that has been put forward in support of the claim that cetaceans have culture.
  - D. It introduces a claim that would be dismissed by both supporters and opponents of the view that cetaceans have culture.
  - E. It notes a previously overlooked factor that might shed light on the question of whether cetaceans have culture.
2. The passage suggests which of the following about captive cetaceans?
  - A. Whether they are engaged in social learning is a subject of disagreement among biologists.
  - B. Their ability to imitate new behaviors is more extensive than that of noncaptive cetaceans.
  - C. They exhibit few behaviors that have not also been observed in cetaceans in their natural habitats.
  - D. They appear to adopt new behaviors more quickly than noncaptive cetaceans.
  - E. They exhibit tendencies that suggest a capacity for the kind of behavior that qualifies as cultural.

## Passage 53

Hotter and more massive than the Sun, stars called “stragglers” are puzzling to astronomers because such rapidly burning stars would not be expected to persist in ancient star clusters. **Some researchers believe that the typical blue stragglers formed when two ancient, lower-mass stars collide and merge form more massive, hotter star.** Peter Leonard theorizes alternatively that in low density globular clusters, where mergers between single stars occur too infrequently to account for the observed quantity of blue stragglers, these stragglers are created instead by a group of stars. He suggests that a pair of stars already orbiting each other presents a **larger target** for a third star or another pair. Once this new grouping forms, close encounters between the stars could prompt any two to merge as a blue straggler. Leonard's model predicts that each blue straggler has a distant orbiting companion—as appears true of many blue stragglers in the M67 cluster of the Milky Way galaxy.

1. The reference to a “larger target” serves primarily to suggest why a
  - A. blue straggler would be more likely to collide and merge with another star than would be a lower-mass star
  - B. pair of stars would be more likely to encounter other stars than would the typical blue straggler
  - C. pair of stars would be more likely to interact with other stars than would a single star
  - D. blue straggler would be more likely to interact with a pair of stars than it would with a third star
  - E. third star would be more likely to encounter a pair than it would to encounter a blue straggler
2. Information presented in the passage suggests which of the following about blue stragglers?
  - A. They originate from stars that are hotter and more massive than the Sun.
  - B. They are burning more rapidly than other types of stars observed in ancient star clusters.
  - C. They are older than most other types of stars within the same star cluster.
  - D. They are less numerous in low-density globular clusters than are pairs of stars.
  - E. They generally originate from the oldest stars among those found in ancient star clusters.

3. The passage cites which of the following as evidence undermining the theory presented in the second sentence?

- A. A discrepancy between the number of mergers between single stars in certain low-density globular clusters and that in other low-density globular clusters
- B. A discrepancy between the heat and mass of blue stragglers formed by one type of process and the heat and mass of blue stragglers formed by another type of process
- C. A discrepancy between the frequency of star mergers in low-density globular clusters and those in high-density globular clusters
- D. A discrepancy between the amount of heat and mass of ancient single stars and that of blue stragglers
- E. A discrepancy between the number of mergers between single stars in certain star clusters and the number of blue stragglers in those clusters

#### Passage 54

Most seismologists assume that following a major earthquake and its aftershocks, the fault (a break in Earth's crust where pressure can trigger an earthquake) will remain quiet until stresses have time to rebuild, typically over hundreds or thousands of years. Recent evidence of subtle interactions between earthquakes may overturn this assumption, however. According to the stress-triggering hypothesis, faults are unexpectedly responsive to subtle stresses they acquire as neighboring faults shift. Rather than simply dissipating, stress relieved during an earthquake travels along the fault, concentrating in sites nearby; even the smallest additional stresses may then trigger another quake along the fault or on a nearby fault. Although scientists have long viewed such subtle interactions as nonexistent, the hypothesis has explained the location and frequency of earthquakes following several destructive quakes in California, Japan, and Turkey.

1. According to the passage, which of the following is an assumption that may be invalidated by recent seismological evidence?

- A. Earthquakes are caused by stresses building up in faults within Earth's crust.
- B. Most major earthquakes can be predicted with reasonable accuracy.
- C. Faults are highly responsive to even minor stresses in neighboring faults.
- D. Most major earthquakes are followed by predictable aftershocks.
- E. A fault that has resulted in a major earthquake becomes quiet for a long period.

For the following question, consider each of the choices separately and select all that apply.

2. The passage suggests that most seismologists believe which of the following about fault stresses?

- A. They are dissipated when they result in an earthquake.
- B. They are transferred between neighboring faults.
- C. They will not cause a major earthquake along the same fault in the space of a few years.

#### Passage 55

MacArthur and Wilson suggested that the biodiversity of an island will vary in direct proportion to a function of the island's size (i.e., larger islands can support a greater number of species) and in inverse proportion to a function of its distance from the mainland (i.e., many remote islands will tend to support fewer species). Reduced biodiversity in an island context is likely to require significant adaptation on the part of colonizing human populations. Evans argues that this limitation makes islands ideal laboratories for the study of human adaptations to the natural environment, whilst Renfrew and Wagstaff, in the introduction to their study of Melos, focus on this limitation in biodiversity as a "significant characteristic of the island ecosystem." For human communities, however, this limitation may potentially be offset by other factors. The reduced biodiversity of an island ecosystem applies only to terrestrial resources: the resources of the sea will be as rich as on any other coastal area, and may be equally important to human communities. A small island such as Malta or Melos allows all communities direct access to the sea, providing an important nutritional "safety net," as well as an element of dietary diversity, which may actually give island communities an advantage over their landlocked counterparts. Islands may also have specific nonbiological resources (such as obsidian on

Melos), which may be used in exchange with communities on other islands and adjacent mainlands.

1. The primary purpose of the passage is to
  - A. evaluate two contrasting approaches to island biodiversity
  - B. discuss the relevance of certain data pertaining to island biodiversity
  - C. call into question a particular understanding of island biodiversity
  - D. consider various reasons for reduced biodiversity on islands
  - E. contrast large and small islands in terms of overall biodiversity

For the following question, consider each of the choices separately and select all that apply.

2. According to the author, factors of potential importance to human communities on islands include
  - A. the accessibility of the sea's resources
  - B. a diet superior in some respects to the diet of landlocked communities
  - C. nonbiological resources that can be exploited
3. The author suggests that in considering the biodiversity of islands, Evans
  - A. focuses too exclusively on terrestrial resources
  - B. misunderstands the relationship between an island's size and its terrestrial resources
  - C. misinterprets the work of MacArthur and Wilson
  - D. is wrong to assume that more remote islands support fewer species
  - E. downplays the ways that human communities adapt to island biodiversity

### Passage 56

Eighteenth-century women played a significant part in British political life. Up and down the social scale they performed a variety of political acts, everything from purchasing political artifacts such as plates, handkerchiefs, and fans to penning political pamphlets, starving in civic processions, sponsoring boycotts, arguing over public issues in their own debating societies, rioting, and uttering seditious words. Whereas historians used to see female political involvement in this century as isolated or aberrant, they now stress the continuity and normalcy of such activity, especially for aristocratic women. Given the familial nature of aristocratic politics, noble women were actually expected to act as political advisors and agents for their husbands, to canvass in elections, to serve as political hostesses, to seek and dispense political patronage. They did so routinely long before the eighteenth century and deep into the nineteenth century. Patrician women had such far reaching political influence, it has been argued recently, that they actually stood to lose by expansion of the electorate to include women. Fruitful as this new historiography has been, however, it has also been criticized for its focus on the machinations of high politics and its inattention to ideology. Given the widespread hostility to "public" women in the eighteenth century, was female political activity quite so unproblematic as these new studies tend to assume? **Anna Clark has pointed out that celebration of elite politicizing neglects both the condition of ordinary women and the nitpicking contemporary attacks on just this sort of upper-class influence peddling.**

1. The author would most likely agree with which of the following statements about political acts performed by eighteenth-century women?
  - A. They had little influence on the outcome of elections
  - B. They were aimed largely at the expansion of the electorate
  - C. They probably were discouraged by men with political aspirations
  - D. They represented a new development in British society
  - E. They were sometimes perceived as being negative
2. The author suggested which of the following about the "expansion of the electorate to include women" in the eighteenth-century Britain?
  - A. It might have reduced women's incentives to engage in such political activities as boycotts and riots.
  - B. It might have reduced the political power of some people who had exerted great influence.
  - C. It would have been unlikely to overturn the aristocracy's political control of the country.
  - D. It would likely have extended the vote only to aristocratic women.
  - E. It was not an issue addressed by men who were engaged in politics.
3. Which of the following statements best describes the function of the highlighted sentence?

- A. It reinterprets an explanation originated by historians who contributed to the “new historiography”
- B. It questions the accuracy of evidence presented in the service of the “new historiography”
- C. It identifies issues that have been overlooked by the “new historiography”
- D. It highlights claims of the “new historiography” that have been neglected
- E. It defends the “new historiography” against an unwarranted criticism

### Passage 57

A critical consensus has emerged that Mary McCarthy will be remembered primarily as an essayist rather than as a novelist. But despite her formidable gifts as a polemical and **discursive** writer, and for all her reputation as an intellectual who sacrificed feeling to intelligence, what powers McCarthy’s best essays are her fictional rather than strictly intellectual gifts. She makes her points by telling stories or by way of vivid description, arresting images and subtle characterization. And for all her exacting sense of fact, McCarthy’s greatest contribution was to blur the distinctions between different kinds of prose writing: to show how fiction could be opened up to the thinking mind and how essays could profit from the techniques of fiction.

For the following question, consider each of the choices separately and select all that apply.

1. The author of the passage suggests that Mary McCarthy’s writing is characterized by
  - A. The use in her essays of devices more typical in works of fiction
  - B. A narrowing of the differences between narrative and expository prose
  - C. Careful attention to factual accuracy.
2. In the context in which it appears, “discursive” most nearly means
  - A. Prolific
  - B. Sophistic
  - C. Rambling
  - D. Analytical
  - E. Circuitous

### Passage 58

One reason researchers have long believed that Mars never enjoyed an extensive period of warm and wet climate is that much of the surface not covered by wind-borne dust appear to be composed of unweathered material. **If water flowed for an extended period, researchers reasoned, it should have altered and weathered the volcanic minerals, creating clays or other oxidized, hydrated phases (minerals that incorporate water molecules in their crystal structure).**

It turns out, though, that the scientists were not looking closely enough. New high-resolution mapping data and close-up surface studies have revealed clays and other hydrated minerals in many regions. The clay deposits are scattered all over, in ancient volcanic surfaces and heavily cratered highland regions, some of which have apparently been exposed by erosion only recently.

1. According to the passage, scientists are able to discover weathered material on the Martian surface because they have benefited from which of the following?
  - A. A new method to analyze volcanic craters created on the Martian surface
  - B. An improved ability to detect hydrated materials on the Martian surface
  - C. A more sophisticated understanding of the effect of wind-borne dust on the Martian surface
  - D. A decision to look for water primarily in heavily cratered highland regions
  - E. A better understanding of how erosion might affect clay deposits

For the following question, consider each of the choices separately and select all that apply.

2. It can be inferred from the passage that the author would agree with which of the following statements regarding the reasoning discussed in the highlighted sentence?
  - A. It provides the basis for an explanation of why water on Mars has been difficult to find until recently.

- B. It correctly identifies a consequence of water flowing on the Martian surface.
- C. It depends on a false assumption about how water and volcanic materials interact on Mars.

### Passage 59

Some archaeologists speculate that the Americas might have been initially colonized between 40,000 and 25,000 years ago. However, to support this theory it is necessary to explain the absence of generally accepted habitation sites for that time interval in what is now the United States. Australia, which has a smaller land area than the United States, has many such sites, supporting the generally accepted claim that the continent was colonized by humans at least 40,000 years ago. Australia is less densely populated (resulting in lower chances of discovering sites) and with its overall greater aridity would have presented conditions less favorable for hunter-gatherer occupation. Proportionally, at least as much land area has been lost from the coastal regions of Australia because of postglacial sea-level rise as in the United States, so any coastal archaeological record in Australia should have been depleted about as much as a coastal record in the United States. Since there are so many resource-rich rivers leading inland from the United States coastlines, it seems implausible that a growing population of humans would have confined itself to coasts for thousands of years. If inhabitants were present 25,000 years ago, the chances of their appearing in the archaeological record would seem to be greater than for Australia.

1. The passage is primarily concerned with doing which of the following?
  - A. Presenting an objection to a claim
  - B. Accounting for an apparent anomaly
  - C. Outlining an alternative interpretation
  - D. Correcting a particular misconception
  - E. Questioning the validity of a comparison
2. The author of the passage implies which of the following about 25,000 years ago?
  - A. The coastline of the region that is now the United States is longer than it was 40,000 years ago.
  - B. Rivers in what is now the United States were numerous than they are now.
  - C. Australia was less densely populated at that time than was the region that is now the United States.
  - D. Australia's climate was significantly drier than it is now.
  - E. Global sea level was lower than it is now.
3. The author of the passage implies that, in what is now the United States, archaeological evidence of inhabitation in the period from 40,000 to 25,000 years ago is lacking because that region is
  - A. had its oldest habitation sites inundated following a postglacial rise in sea level
  - B. has many resource-rich rivers that facilitated the dispersal of early inhabitants from an initial concentration in coastal areas
  - C. was sparsely populated until about 25,000 years ago
  - D. was colonized less than 25,000 years ago
  - E. was inhabited only by hunter-gatherers until 25,000 years ago

### Passage 60

For years, the leading theory for what caused the Younger Dryas (a dramatic reversal, about 12,900 years ago, in a global warming trend) was a release of water from Glacial Lake Agassiz. The theory posited that this meltwater flooded into the North Atlantic, lowering the salinity and intensity of surface waters enough to prevent them from sinking. Ocean currents were changed in such a way that northward transport of heat in the ocean diminished, and the North Atlantic regions plunged back into near-glacial conditions. However, evidence has emerged that the Younger Dryas began long before freshwater flooded the North Atlantic. Additionally, the temperature changes included by a shutdown in the North Atlantic heat conveyor system are too small to explain the Younger Dryas.

1. The author of the passage implies which of the following about the release of water from glacial Lake Agassiz?
  - A. The notion that the release occurred has been challenged by more recent findings.

- B. The release probably occurred much earlier than scientists have generally assumed.
- C. The release would not have been sufficient to cause any temperature change in the North Atlantic.
- D. The timing of the release is such that it probably did not trigger the onset of the Younger Dryas.
- E. The release was probably unrelated to the global warming trend that was taking place.

2. The passage is primarily concerned with
- A. presenting evidence that undermines an explanation
  - B. explaining the nature of a climatological phenomenon
  - C. questioning the timing of a particular event
  - D. discussing a new explanation for a phenomenon
  - E. suggesting revisions to a popular theory

### Passage 61

Animals live longer when their calorie intake is restricted to two-thirds of what is considered normal for their species. Animals so restricted are also generally healthier: most disease, including cancer, diabetes, and neurodegenerative illness, are forestalled. <sup>Q2</sup>**This phenomenon was long attributed to a simple slowing of metabolism** (cells' production of energy from fuel molecules) and consequent reproduction of its toxic by-products in response to less food. In fact, however, calorie restriction does not slow mammalian metabolism, and <sup>Q1</sup>**in yeast and worms, metabolism is both sped up and altered**. Some scientists now theorize that calorie restriction is a biological stressor that, like natural food scarcity, induces a more complex defensive response, which in mammals includes changes in cellular defenses and repair.

1. In the passage, the function of the highlighted portion is to
- A. Provide specific examples of organisms whose longevity does not increase in response to calorie restriction.
  - B. Illustrate the probable means by which organisms placed on a calorie-restriction diet compensate for the reduction in available food-based level.
  - C. Suggest the mechanism that is responsible for prolonging the life of organism whose calorie intake is significantly reduced.
  - D. Give an example that explain why scientists' thinking about the physiological effects of calorie restriction changed.
  - E. Distinguish the different ways that mammalian and non-mammalian metabolisms respond to significant reductions in calorie intake

For the following question, consider each of the choices separately and select all that apply.

2. The passage implies which of the following about the explanation mentioned in the highlighted text?
- A. There are empirical findings that conflict with a presumption of the explanation.
  - B. The explanation predicts that the effect of calorie restriction on longevity will be the greatest for the species with the highest rate of metabolism.
  - C. The explanation predicts that the effects of calorie restriction will be uniformly positive.

### Passage 62

Astronomers studying a certain kind of supernova (exploding star) were surprised to find the supernovas were fainter than expected. Seeking explanations, they discounted the possibility that cosmic dust might be screening out some of the light, because it would filter out blue light more than red, causing the supernovas to appear redder than they really are. Also, unless spread very smoothly throughout space, the dust would introduce large variations in the **measurements**. Another possibility is gravitational lensing, the bending of light rays as they skirt galaxies *en route*. Such lensing occasionally causes brightening, but most often it contributes to the dimness of distant supernovas. Calculations show, however, that this effect becomes important only for sources more distant than the supernovas studied.

1. According to the passage, the astronomers rejected gravitational lensing as an explanation for their

findings because

- A. gravitational lensing can cause supernovas to appear brighter than they really are
  - B. their calculations showed a negligible effect of gravitational lensing for light rays from distant sources.
  - C. light rays traveling from the supernovas studied did not have to skirt galaxies.
  - D. the effect of gravitational lensing on the appearance of supernovas is unpredictable.
  - E. the supernovas studied were too near for gravitational lensing to have the observed dimming effect.
2. The passage implies which of the following about the measurements made by the astronomers?
- A. There were small calculation errors in their measurements.
  - B. There were no large variations in their measurements.
  - C. Their measurements were skewed by unevenly spread cosmic dust.
  - D. Their measurements were incomplete because cosmos dust screened out some of the light.
  - E. It was possible to take more measurements of red light than of blue light.

### Passage 63

The “deindustrialization” thesis of Bluestone and Harrison asserts that the replacement of domestic with foreign manufacturing begun by United States corporations in the late 1960s resulted in a “hollowing out” of American industry, whereby workers displaced from manufacturing jobs through massive plant closings found themselves moving more or less permanently into lower-paying, less secure jobs or into unemployment. Critics of the deindustrialization thesis have argued that new service and high-technology sectors of the United States economy have recently created a substantial number of jobs. While these critics do not deny the painful aspects of this transition from an industrial to a service- and information-based economy, they argue that it will be short-term, and a necessary evil if the United States is to have long-term increases in living standards. **Critics** of the emerging economy, however, point to disturbing evidence of an “hourglass” effect: a shrinking middle tier of managerial and blue-collar unionized workers and consequent polarization of incomes. The emergence of a technical and financial elite, they argue, has brought forth a host of low-wage jobs to service the new economy, and it is this service sector that many ex-industrial workers must seek.

1. The purpose of the passage is to
- A. analyze the events that contributed to an economic phenomenon
  - B. present different views on the nature and impact of an economic phenomenon
  - C. distinguish between the short-term and long-term effects of an economic phenomenon
  - D. challenge a dominant theory about how to solve the problems created by an economic phenomenon
  - E. present new evidence to suggest that an economic phenomenon is more complex than had previously been believed
2. Which of the following, if true, would most tend to weaken the deindustrialization thesis of Bluestone and Harrison?
- A. a survey of the spouses of former industrial workers reveals a significant increase in the number of working spouses since the mid-1960s.
  - B. data from the most recent United States census show that fewer individuals list their occupation as industrial worker than in the census from ten years earlier.
  - C. a random survey of United States consumers indicates that a majority of those surveyed would prefer to buy United States-manufacturing goods if given the opportunity.
  - D. A recent study indicates that large numbers of former industrial workers have retrained and found employment as skilled, highly-paid computer workers.
  - E. Interviews with representatives at major agencies for temporary employment in the United States suggest that they value the skills of former industrial workers.
3. It can be inferred from the passage that the highlighted “critics” believe which of the following about “hourglass” effect?
- A. It involves the relegation of industrial workers to less desirable jobs.
  - B. It requires that workers make short-term sacrifices to achieve long-term gains.
  - C. It affects non-unionized workers more strongly than it does unionized workers.
  - D. It represents an increase in unemployment for those in the service sector.
  - E. It threatens the status of the technological and financial elite.

## Passage 64

Some historians have recently challenged the “party period paradigm,” the view, advanced by McCormick and others, that political parties—especially the two major parties—in the United States between the years 1835 and 1900 evoked extraordinary loyalty from voters and dominated political life. Voss-Hubbard cites the frequency of third-party eruptions during the period as evidence of popular antipathy to the two-party regime. He correctly credits third parties with helping generate the nineteenth-century’s historically high rates of voter turnout by forcing major parties to bolster supporters’ allegiance, lest minor parties siphon off their votes, and with pushing policy demands that the major parties ignored. Formisano stresses the pervasive record of nonpartisan and antiparty governance at the local level, and women’s frequent participation in nineteenth-century public life, prior to their enfranchisement, in nonpartisan and antiparty ways as evidence of the limitations of the party period paradigm. Yet McCormick would deny that the existence of antiparty sentiment during the period undermines the paradigm, since he has always acknowledged the residual strength of such sentiment during the nineteenth century. In any case, the strength of the paradigm is its comparative thrust: the contrast it draws between the period in question and later political eras.

1. The primary purpose of the passage is to
  - A. correct a common misconception about a historical period.
  - B. identify a feature of a historical period that has often been overlooked.
  - C. challenge the validity of evidence used to support a claim.
  - D. discuss certain challenges to a particular view.
  - E. account for a particular feature of a historical period.
2. Select the sentence in the passage that describes how a historian might reply to attempts to call his theory into question.
3. In the context in which it appears, “evoked” most nearly means
  - A. elicited
  - B. recalled
  - C. cited
  - D. suggested
  - E. elaborated

## Passage 65

Some historians question the widely held belief that continually improving education led to gradual African American empowerment in the southern United States from the late nineteenth century through the mid-twentieth century. They note that the development of Black educational institutions in the segregated South was never rapid or steady: disparities between Black and White schools sometimes grew in the early decades of the twentieth century. And African Americans’ educational gains did not bring commensurate economic gains. Starting in the 1940s, even as Black and White schools in the South moved steadily toward equality, Black southerners remained politically marginalized and experienced systematic job discrimination. Although Black schools had achieved near parity with White schools in per capita spending and teachers’ salaries by 1965, African Americans’ income still lagged behind that of Whites. **Nonetheless, educational progress did contribute toward economic and political empowerment.** African Americans’ campaigns to support Black schools fostered a sense of community, nurtured political determination, and often increased literacy. More significantly, politically outspoken Black newspapers achieved record circulation during the 1940s, just as the literacy rate among African Americans approached 90 percent. Finally, the leadership of the Civil Rights movement of the 1960s was composed largely of graduates of Black colleges.

1. The author of the passage refers to the fact that “disparities between Black and White schools sometimes grew in the early decades of the twentieth century” most likely in order to
  - A. support the argument that the economic struggles of southern Blacks were largely due to educational inequalities
  - B. give an example of the differences between Black schools in the early part of the twentieth century



and Black schools starting in the 1940s

- C. illustrate the unevenness of the progress made by Black schools in the southern United States
- D. help explain why Black remained politically marginalized and experienced systematic job discrimination in the segregated South
- E. provide evidence that educational progress was a precondition for economic progress in the segregated South

2. Which of the following best describes the purpose of the highlighted sentence?

- A. It clarifies a point introduced in the preceding sentence.
- B. It reiterates a point introduced in the first sentence of the passage.
- C. It questions the accuracy of some of the evidence used to support the argument of the historians.
- D. It introduces a perspective that runs contrary to the view of those who endorse the “belief.”
- E. It qualifies the interpretation made by the historians.

3. The passage suggests which of the following about the Civil Rights movement?

- A. It gave rise to a rapid increase in the number of Black newspapers published in the South.
- B. Its political effectiveness was greatly enhanced by the increased circulation of Black newspapers.
- C. Its leadership benefited from improvements in education for African Americans.
- D. It was the force primarily responsible for increasing per capita spending in Black schools.
- E. It was responsible for changing many historians’ view of the relation between education and African American empowerment.

## Passage 66

Supernovas in the Milky Ways are the likeliest source for most of the cosmic rays reaching Earth. However, calculations show that supernovas cannot produce ultrahigh-energy cosmic rays (UHECRs), which have energies exceeding 10<sup>18</sup> electron volts. It would seem sensible to seek the source of these in the universe’s most conspicuous energy factories: quasars and gamma-ray bursts billions of light-years away from Earth. But UHECRs tend to collide with photons of the cosmic microwave background—pervasive radiation that is relic of the early universe. The odds favor a collision every 20 million light-years, each collision costing 20 percent of the cosmic ray’s energy. Consequently, no cosmic ray traveling much beyond 100 million light-years can retain the energy observed in UHECRs.

For the following question, consider each of the choices separately and select all that apply.

1. It can be inferred that the author of the passage would agree with which of the follow about the origin of UHECRs that reach Earth?

- A. The origin is something other than supernovas in the Milky Way.
- B. The origin is most likely something other than very distant quasars or gamma-ray bursts.
- C. The origin is most likely no more than a little over 100 million light-years away from Earth.

2. In the context of the author’s argument, the last sentence performs which of the following functions?

- A. It explains a criterion that was employed earlier in the argument.
- B. It shows that an apparently plausible position is actually self-contradictory.
- C. It is a conclusion drawn in the course of refuting a potential explanation.
- D. It overturns an assumption on which an opposing position depends.
- E. It states the main conclusion that the author is seeking to establish.

## Passage 67

Scientific consensus is that humans first began to have a warming effect on Earth’s climate within the past century, after coal-burning factories, power plants, and motor vehicles began releasing carbon dioxide (CO<sub>2</sub>) and other greenhouse gases in significant quantities into the air. **However, evidence suggests that human agricultural activities may have had such an effect much earlier: concentrations of CO<sub>2</sub> started rising about 8000 years ago, even though natural trends indicate they should have been dropping; methane levels rose similarly about 3,000 years later.** Without these rises, however, current temperatures in northern parts of North America and Europe would be

cooler by three to four degrees Celsius—enough to inhibit agriculture—and an ice age would probably have begun several thousand years ago in northeastern Canada.

1. Which of the following best describes the function of the highlighted sentence?
  - A. It undermines the assumption that human activity has had a significant impact on Earth's climate
  - B. It supports the assumption that Earth's temperatures have risen appreciably over the past 100 years
  - C. It questions the assumption that greenhouse gases have had a warming effect on Earth's climate
  - D. It challenges the assumption that human activity began to affect Earth's climate after the advent of industrialization
  - E. It supports the assumption that greenhouse gases are a direct by-product of industrial activities
2. The author mentions "natural trends" most likely in order to
  - A. propose a possible explanation for why current temperatures in North America and Europe are not as low as they might otherwise be
  - B. explain why levels of methane in Earth's atmosphere began to rise approximately 5,000 years ago
  - C. suggest that Earth's climate would have become even warmer without the advent of human agricultural activities
  - D. identify factors that may have contributed to the rise of greenhouse gases in Earth's atmosphere approximately 8,000 years ago and again some 3,000 years later
  - E. support the claim that human activity may have played a role in the rise in CO<sub>2</sub> and methane levels in the atmosphere thousands of years ago

### Passage 68

An influential early view held that ecosystems contain niches for a limited number of species and that competition for resources among species—whether native or nonnative invading ones—determines ecosystems' species composition. However, factors other than competition often help explain invading species' success. For example, the American grey squirrel, often cited as a classic example of competitively superior invading species, was introduced in England in 1876 and now thrives, while the native red squirrel population has declined. Although scientists have found gray squirrels to be more efficient foragers than red ones, they also note that even before the gray squirrel's arrival, Britain's red squirrel populations had a periodic tendency to die out, only to be subsequently reintroduced. Furthermore, many gray squirrels are silent carriers of a disease fatal to red squirrels.

1. It can be inferred that the author of the passage mentions the efficiency with which gray squirrels forage primarily in order to
  - A. identify a factor that explains a certain phenomenon
  - B. call attention to an inconsistency in a particular theory
  - C. suggest that competition cannot be the factor responsible for a particular outcome
  - D. acknowledge a fact that appears to support a view that the author intends to qualify
  - E. cite evidence that is not consistent with an early influential view about species competition
2. It can be inferred that the author of the passage would be most likely to agree with which of the following statements about the "early view?"
  - A. It reflects a mistaken assumption about the means by which nonnative species are introduced into ecosystems.
  - B. Its basic premise is shown to be valid by the effect of American gray squirrels on Britain's red squirrel population.
  - C. It presents a simplistic picture of the means by which species composition within ecosystems is determined.
  - D. It can effectively explain the formation of ecosystems that contain few species but cannot adequately account for the formation of complex ecosystems.
  - E. It understates the importance of competition as a factor determining species composition within ecosystems.

### Passage 69

Historian Colin Calloway argues that in the late colonial period preceding the American Revolution (1775-1783), the British government sought to seal off territory west of the Appalachian Mountains from the encroachment of land-hungry White settlers, to negotiate with Native American peoples as independent foreign states, and to guarantee the integrity of traditional Native American hunting grounds. By contrast, White Americans, released by the outbreak of the Revolution from the constraints of Britain's allegedly benevolent policies, are portrayed by Calloway as ruthless land-grabbers whose new national government endorsed their rapacity. Bernard Bailyn argues, however, that the "Americans" who encroached on Native American land during the Revolution had been British only a few years before. When, during and after the Revolution, White Americans seized Native American land by any available means, they were continuing a tradition dating back to the earliest years of English settlement in North America. And, according to Bailyn, the British government's prewar efforts to preserve the trans-Appalachian west for Native Americans resulted not from humanitarian virtue or ethnic tolerance but from British merchants' desire to maintain their lucrative trade with Native Americans and the government's desire to control immigration and avoid costly conflict between Whites and Native Americans over land.

1. The primary purpose of the passage is to
  - A. suggest that two different arguments about a particular historical period are both questionable
  - B. present historical evidence that undermines a widely accepted viewpoint
  - C. defend a revisionist historian's thesis against traditionalist criticism
  - D. outline opposing interpretations of a particular historical phenomenon
  - E. resolve a dispute among historians over a controversial historical episode
  
2. The reference to "the earliest years of English settlement in North America" serves primarily to emphasize the point that
  - A. Calloway has exaggerated the ruthlessness and rapacity of White settlers in their relations with Native Americans prior to the American Revolution
  - B. seizure of Native American lands by White settlers had increased dramatically throughout the time of British colonial rule
  - C. at one time White settlers had negotiated with Native American peoples as independent foreign states
  - D. White settlers had no legitimate grounds for claiming title to land they seized west of the Appalachian Mountains
  - E. aggression by White settlers against Native Americans during and after the American Revolution was not a new phenomenon
  
3. It can be inferred that both Bailyn and Calloway would probably agree with which of the following assertions regarding the relations between White Americans and Native Americans concerning the trans-Appalachian West
  - A. The American Revolution unleashed an unprecedented wave of expropriation of Native American land by White settlers.
  - B. The British government's prewar policy towards the Native Americans was determined largely by the interests of British merchants who traded with the Native Americans.
  - C. The British government tried to keep White settlers out of the trans-Appalachian west primarily in order to prevent disputes over land between those settlers and Native Americans.
  - D. The new national government created by the American Revolution had less incentive than did the British colonial government to negotiate with Native American peoples as independent foreign states.
  - E. One objective of the British government's land policy prior to the American Revolution was to prevent White settlers from moving to the western side of the Appalachian Mountains.

## Passage 70

An Irish newspaper editorial encouraging women to participate in the non-importation movement launched in Ireland in 1779 appears consistent with a perception that the political use of the consumer boycott originated in North America and spread eastwards across the Atlantic to Ireland. This is a view that most historians have concurred with. For example, T.H. Breen argued that the consumer boycott was a brilliantly original American invention. **Breen did acknowledge that a few isolated boycotts may have taken place in other countries.** However, Mary O'Dowd argues that from the late seventeenth century, Irish political discourse advocated for the nonconsumption of imported goods and support for home manufactures by women in ways that were strikingly similar to those used later in

North America.

1. The passage is primarily concerned with
  - A. resolving a dispute
  - B. advocating a course of action
  - C. tracing the evolution of a practice
  - D. citing competing views of an issue
  - E. chronicling a series of events
2. In the context of the passage, the highlighted sentence serves to
  - A. qualify a point made in the preceding sentence
  - B. correct an erroneous assumption
  - C. provide evidence in support of a perception cited in the opening sentence
  - D. provide a rationale for the view expressed in the following sentence
  - E. establish the popularity of a point of view

### Passage 71

Before feminist literary criticism emerged in the 1970s, the nineteenth-century United States writer Fanny Fern was regarded by most **critics** (when considered at all) as a prototype of weepy sentimentalism—a pious, insipid icon of conventional American culture. Feminist reclamations of Fern, by contrast, emphasize her nonsentimental qualities, particularly her sharply humorous social criticism. Most feminist scholars found it difficult to reconcile **Fern's sardonic social critiques with her elusive celebrations of many conventional values**. Attempting to resolve this contradiction, Harris concludes that Fern employed flowery rhetoric strategically to disguise her subversive goals beneath apparent conventionality. However, Tompkins proposes an alternative view of sentimentality itself, suggesting that sentimental writing could serve radical, rather than only conservative, ends by swaying readers emotionally, moving them to embrace social change.

1. The passage suggests which of the following about the contradiction mentioned in the highlighted sentence?
  - A. It was not generally addressed by critics before the 1970s.
  - B. It is apparent in only a small number of Fern's writings.
  - C. It has troubled many feminist critics who study Fern.
2. It can be inferred from the passage that Tompkins would be most likely to agree with which of the following about the critics mentioned in the passage?
  - A. They accurately characterize the overall result Fern is aiming to achieve.
  - B. They are not as dismissive of Fern as some feminist critics have suggested.
  - C. They exaggerate the extent to which Fern intended her writing to serve a social purpose.
  - D. They wrongly assume that sentimental must be a pejorative term.
  - E. They fail to recognize that sentimental rhetoric plays to readers' emotions.
3. It can be inferred that the author of the passage mentions Fern's "sharply humorous social criticism" primarily in order to
  - A. contrast Fern's apparent intentions with the impression her writing made on Harris
  - B. suggest that many feminist critics have attributed to Fern intentions that she may not have had
  - C. identify an aspect of Fern's writing that strikes some scholars as incompatible with other attributes of her writing
  - D. help account for the effect Fern's writing had on critics of her own time
  - E. identify the aspects of Fern's writing for which she was primarily known prior to the 1970s
4. In the context in which it appears, "reclamations" most nearly means
  - A. reformations
  - B. rehabilitations
  - C. recapitulations
  - D. retractions
  - E. reiterations

## Passage 72

Biologists have long debated about whether egg production in birds is biologically highly costly, some theorizing that egg production is energetically or nutritionally demanding. Lack, however, suggested that clutch size—the number of eggs a bird lays per breeding cycle—is far below the potential limit of egg production. He suggested that clutch size had instead evolved in relation to the number of young that the parents could successfully rear. Subsequently, most studies focused on limitations operating during chick rearing, particularly among altricial species (species in which the parents feed their young in the nest). Lack later recognized that in precocial species (species in which young feed themselves), clutch size might be explained by different factors—the availability of food for egg-laying females, for example.

1. The passage suggests that biologists who say egg production in birds is biologically highly costly would agree that clutch size is determined primarily by
- A. The nutritional and energy demands of egg production.
  - B. The number of young that the parents can rear successfully.
  - C. Reproductive limitations operating during chick rearing.
  - D. The availability of food for newly hatched chicks.
  - E. The differences between altricial and precocial species.

For the following question, consider each of the choices separately and select all that apply.

2. The passage suggests that Lack would agree with which of the following statements about factors affecting clutch size in birds?
- A. In altricial species, clutch size is determined primarily by factors operating after eggs are laid.
  - B. In precocial species, clutch size is determined primarily by factors operating after eggs are laid.
  - C. In many bird species, clutch size generally remains well below the potential limit of egg production.

## Passage 73

Because the subject matter was so personal, the work of several prominent mid-twentieth century poets has been termed “confessional” poetry. But confession is a bad metaphor for what those poets did. The motive for confession is penitential or therapeutic—by speaking openly about personal guilt and suffering, the poet hopes to make them easier to bear. But these poets always approached their writing as artists, and their motive was aesthetic. Writing from experiences like madness, despair, and lust, their aim was to make effective art, not to cure themselves. To treat their poems mainly as documents of personal experience is not to diminish the poets’ achievement, but to ignore their unanimous disdain for the idea of confessional poetry.

For the following question, consider each of the choices separately and select all that apply.

1. The author of the passage suggests that applying the term “confessional” to the work of the poets discussed
- A. is mistaken in what it seems to imply about the poets’ motivation
  - B. might seem superficially appropriate given the subject matter of the poems
  - C. is an error arising from the absence of any other convenient term

For the following question, consider each of the choices separately and select all that apply.

2. The passage implies that the poets discussed did NOT
- A. Think that a poet’s motivation for writing was relevant in evaluating that poet’s work
  - B. Experience any relief of their personal suffering as a result of writing
  - C. Apply to their own work the label by which it has subsequently been known

## Passage 74

From 1880s to the 1930s, the textile industry in Japan employed over half of all workers, most of them in the three major branches of silk reeling, cotton spinning, and weaving. Because the branches were highly diverse—in scale, skill requirements, and technology—historians traditionally have analyzed them separately. However, the workforces of all three were drawn primarily from the same population: young, mostly rural women aged 10 to 25. Noting this commonality, Hunter argues that a consideration of the three branches of production together is long overdue: examining elements common to the different branches of textile production may, she asserts, permit the identification of gender-based factors that may have influenced the operation of the Japanese female labor market as a whole.

1. Which of the following does the passage cite as an explanation for historians' traditional analysis of the Japanese textile industry?

- A. A common workforce population across all branches of textile manufacturing
- B. Similarities in the skills required for silk reeling, cotton spinning, and weaving
- C. The importance of the textile industry to the Japanese economy as a whole.
- D. The high number of female factory workers employed within the textile industry
- E. Differences in the technology used in the three major branches of textile production

Consider each of the choices separately and select all that apply

2. It can be inferred that Hunter regards which of the following to be a shortcoming of historians' traditional analyses discussed in the passage?

- A. Their failure to examine factors common to the three different branches of Japanese textile production
- B. Their separation of the Japanese textile industry into three major branches based on differences in scale, skill requirements, and technology
- C. Their failure to acknowledge the contribution made by rural women to the different branches of the textile industry

## Passage 75

Among many historians a belief persists that Cotton Mather's biographies of some of the settlers of the Massachusetts Bay Colony (published 1702) are exercises in hagiography, endowing their subjects with saintly piety at the expense of historical accuracy. Yet modern studies have profited both from the breadth of information that Mather provides in, for example, his discussions of colonial medicine and from his critical observations of such leading figures as Governor John Winthrop. Mather's wry humor is demonstrated by his detailed descriptions of events such as Winthrop's efforts to prevent wood-stealing is overlooked by those charging Mather with presenting his subjects as extremely pious. The charge also obscures Mather's concern with the settlers' material, not just spiritual, prosperity. Further, this pejorative view underrates the biographies' value as chronicles: Mather amassed all sorts of published and unpublished documents as sources, and his selection of key events shows a marked sensitivity to the nature of the colony's development.

1. The primary purpose of the passage is to

- A. Argue against a theory universally accepted by historical researchers
- B. Call attention to an unusual approach to documenting a historical era
- C. Summarize research on a specific historical figure
- D. Counter a particular view about the work of a biographer
- E. Point out subtle differences among controversial historical reports

2. The author of the passage implies that an argument for the historical accuracy of Mather's works is most strongly supported by which of the following?

- A. Surviving documents that corroborate Mather's detailed descriptions of his subjects
- B. Mather's firsthand personal acquaintance with those about whom he wrote
- C. Mather's frank and straightforward accounts of the lives and times of people about whom he had conducted extensive research

- D. Mather's ability to detail important historical events in the religious context of which they were a part
- E. The quantity and nature of the sources from which Mather obtained his information.

3. Information in the passage best supports which of the following statements about Mather's biographies of the settlers of the Massachusetts Bay Colony?

- A. Annals written by Mather and others were censored by later historians, thus detracting from their value as full and accurate accounts of the period.
- B. Mather's description of Governor Winthrop includes all of Winthrop's shortcomings, such as a tendency toward levity at inappropriate times.
- C. Mather's descriptions of the Massachusetts Bay colonists were based primarily on firsthand experiences.
- D. Many historians believe that Mather's biographies are poor sources of historical information because biography is an inherently unreliable genre of historical writing.
- E. Mather's writings reflect an interest in the degree of economic success achieved by early Massachusetts Bay colonists.

4. It can be inferred from the passage that many historians believe that Mather's biographies primarily

- A. disclose important historical data from the settlers' private diaries
- B. glorify the early colonists of the Massachusetts Bay Colony
- C. provide a fuller picture of the multifaceted characters of such historical figures as John Winthrop
- D. indicate the salutary effects of the settlers' religious practices on colonial life
- E. reveal that the settlers considered their lives to be similar to those of the saints

#### Passage 76

Buell's study of village sketches (a type of fiction popular in the United States in the 1830s and 1840s) provides a valuable summary of sketches that portray the community as homogenous and fixed, but it ignores those by women writers, which typically depicted the diversity that increasingly characterized actual village communities at that time. These women's geographical mobility was restricted (although women writers of the time were not uniformly circumscribed in this way), and their subject matter reflected this fact. Yet their texts were enriched by what Gilligan, writing in a different context, has called the ability to attend to voices other than one's own. To varying degrees, the women's sketches portray differences among community members: all stress differences among men and among women (particularly the latter) as well as differences between the sexes, and some also depict cultural diversity. These writers represent community as dynamic, as something must be negotiated and renegotiated because of its members' divergent histories, positions, expectations, and beliefs.

For the following question, consider each of the choices separately and select all that apply.

1. According to the passage, village sketches written by women in the United States in the 1830s and 1840s typically reflected

- A. The negotiations that characterized trade relationships between villages
- B. The fact that these women did not often travel very far beyond their own village
- C. The plurality of experiences and ideas that existed among the residents of a village

2. Select the sentence in the passage that contrasts how men and women depict life in village communities.

3. The passage indicates that when Gilligan spoke of "the ability to attend to voices other than one's own," she

- A. did not consider that ability to be a desirable psychological characteristic
- B. did not believe that individuals differ greatly with respect to that ability
- C. was implying that that ability enhances a sense of belonging in communities
- D. was assuming that good writers are able to depict diverse characters
- E. was not discussing the women who wrote village sketches

### Passage 77

Historian Sheilagh Ogilvie challenges the view that training by European craft guilds from 1560 to 1760 was necessary. Her main evidence, however, is based only on female employment in one guild. Like most other guilds, the Wildberg weaver's guild banned women from becoming masters; however, it exempted master's widow. Indeed, widows accounted for 14 percent of all masters. Ogilvie claims that these "untrained" widow prove "the irrelevance of training." But Wildberg master-widows were not untrained for, as Ogilvie notes elsewhere, wives and children worked with masters; their training may have been informal, but it existed nevertheless. **At least 80 percent of widows were married to masters for longer than the standard six-year apprenticeship; an unknown proportion of the remainder had grown up in weaving families.**

1. In context, the primary function of the final sentence of the passage is to
  - A. provide evidence to undermine a central claim in Ogilvie's argument
  - B. summarize the most important aspects of the data Ogilvie cites to support her analysis.
  - C. illustrate how the Wildberg weavers' guild differed from other craft guilds of the period.
  - D. quantify the amount of formal training typically received by Wildberg master weavers.
  - E. clarify an ambiguity in the status of master-widows as guild members.
2. The author's evaluation of Ogilvie's argument focuses primarily on Ogilvie's
  - A. overgeneralization of a study of an atypical industry
  - B. failure to differentiate between formal apprenticeship training and subsequent practical experience
  - C. assumptions that certain guild members had no training
  - D. insufficient acknowledgement of certain exceptions to a guild's rules
  - E. attempt to impose an artificial uniformity on an extended period in history

### Passage 78

The relevance of the literary personality—a writer's distinctive attitudes, concerns, and artistic choices—to the analysis of a literary work is being scrutinized by various schools of contemporary criticism. Deconstructionists view the literary personality, like the writer's bibliographical personality, as irrelevant. The proper focus of literary analysis, they argue, is a work's intertextuality (interrelationship with other texts), subtexts (unspoken, concealed, or repressed discourses), and metatexts (self-referential aspects), not a perception of a writer's verbal and aesthetic "fingerprints". New historicist also devalue the literary personality, since, in their emphasis on a work's historical context, they **credit a writer with** only those insights and ideas that were generally available when the writer lived. However, to readers interested in literary detective work—say scholars of classical (Greek and Roman) literature who wish to reconstruct damaged texts or deduce a work's authorship—the literary personality sometimes provides vital clues.

1. The passage is primarily concerned with
  - A. discussing attitudes toward a particular focus for literary analysis.
  - B. describing the limitations of two contemporary approaches to literary analysis
  - C. pointing out the similarities among seemingly contrasting approaches to literary analysis.
  - D. defending the resurgence of a particular focus for literary analysis.
  - E. defining a set of related terms employed in literary criticism.

Consider each of the following choice separately and select all that apply.



2. It can be inferred from the passage that on the issue of how to analyze a literary work, the new historicists would most likely agree with the deconstructionists that
- A. the writer's insights and ideas should be understood in terms of the writer's historical context.
  - B. the writer's literary personality has little or no relevance
  - C. the critic should primarily focus on intertextuality, subtexts, and metatexts.
3. In the context in which it appears, "**credit a writer with**" most nearly means
- A. trust a writer with
  - B. applaud a writer for
  - C. believe a writer created
  - D. presume a writer had
  - E. accept a writer for

### Passage 79

Attempts to identify New Guinean's hunter-gatherers face the well-known difficulty of defining what constitutes a hunter-gather group. According to the **common** definition, hunter-gathers are those who subsist by hunting wild animals and gathering wild plants. Yet those criteria beg numerous questions, including the issue of what constitutes "wild". The very presence on a landscape of humans who are consumers affects food resources, blurring the lines between wild and domesticated and, hence between hunting and pastoralism, and between gathering and cultivation. Moreover, it is unclear how groups should be classified that are hunter-gatherers in their procurement strategies but that make use of pastoralism and cultivation in their consumption patterns—subsisting, for example, by trading wild foods to neighbors in return for domesticated crops.

1. The primary purpose of the passage is to
- A. suggest that there are not as many hunter-gathers in New Guinea as is commonly thought
  - B. explain why identifying New Guinean's hunter-gathers is not a straightforward process
  - C. point to certain difficulties in establishing what constitute a wild plant and a wild animal
  - D. establish new, more relevant criteria for what constitutes a hunter-gather group
  - E. discuss the implication of an inappropriate definition of pastoralism
2. Replacement of the word "**common**" with which of the following results in the LEAST change in meaning to the passage?
- A. trite
  - B. mutual
  - C. unexceptional
  - D. collective
  - E. conventional

### Passage 80

Sleep in preindustrial communities remains largely unstudied. Historians have been influenced by modern attitudes that associate sleep with indolence and inactivity, wherein daily lives are seen as monotonous, and uneventful—qualities unlikely to spark the interest of historians dedicated to charting change across time. Historical indifference has also stemmed in part from a seeming shortage of sources and the misguided notion that contemporaries rarely reflected upon a state of existence hidden from the waking world. In truth, however, buried within such disparate evidence as diaries, **medical books**, and legal depositions are regular references to sleep, often terse but nevertheless revealing. Far from being ignored, the subject frequently absorbed people’s thoughts.

For the following question, consider each of the choices separately and select all that apply.

1. The author suggests that sleep in preindustrial communities remains largely unstudied in part because
- A. historians view sleep as not exhibiting change across time.
  - B. the rare references to sleep in diaries and legal documents are too obscure to serve as historical evidence.
  - C. people in preindustrial communities viewed sleep as an entirely separate state of existence from waking life.

For the following question, consider each of the choices separately and select all that apply.

2. The author of the passage mentions **medical books** in order to
- A. support the notion that shortage of sleep in preindustrial communities was treated as medical condition.
  - B. provide support for the argument that people in preindustrial communities were not indifferent to the subject of sleep.
  - C. counter the notion that lack of historical sources prevents research on sleep in preindustrial communities.

### Passage 81

What causes size variation in bumblebee workers? In pollen-storing species larvae develop in individual nest cells and are fed directly by adults. Thus, adults probably **determine** the size attained by each larva. Bumblebee larval cells are not as neatly organized as are those of honeybees, and larvae at the periphery of the brood may receive less care than those in the center. However, it seems implausible that a ten-fold variation in worker mass results from the accidental neglect of some larvae. Given that larvae are reared in a controlled environment by specialized nest workers, it seems more likely that this size variation has an adaptive function and that the colonies benefit from rearing

workers of a range of sizes.

1. It can be inferred that the author of the passage considers the variation in bumblebee workers to be
  - A. serendipitous
  - B. unpredictable
  - C. inconsequential
  - D. advantageous
  - E. unfortunate
2. In the context in which it appears, “**determine**” most nearly means
  - A. order
  - B. discover
  - C. control
  - D. decipher
  - E. terminate

## Passage 82

Global fishery resources are facing a number of threats, which have principally been attributed to commercial fishing. However, current analyses seem to ignore the potential role of recreational fishing in creating such threats. Although many fish captured by recreational fishers are released, there can be subtle negative post-release effects on the fish’s growth and fitness. Additionally, environmental degradation from fishing was once attributed primarily to commercial fishing activities, but the recreational sector is now understood to have its fair share of responsibility for such degradation. Discarded fishing lines and hooks can harm or kill birds and marine mammals; also, the accumulation of lead sinkers used in fishing can result in mortality for waterbirds.

For the following question, consider each of the choices separately and select all that apply.

1. It can be inferred from the passage that the author would support which of the following statements about fish captured and released in recreational fishing?
  - A. They tend to be less fit prior to capture than other fish.
  - B. Their growth can be affected by being captured and released.
  - C. Their overall fitness can be affected by being captured and released.

For the following question, consider each of the choices separately and select all that apply.

2. It can be inferred from the passage that the author would support which of the following statements about threats to global fishery resources?
  - A. Although commercial fishing contributes significantly to environmental degradation, such fishing has little impact on fish growth and fitness.
  - B. Although commercial fishing is known to be a source of threats to global fisheries, recreational

fishing has been largely overlooked as a potential source of such threats.

C. Recreational fishing now represents a greater threat to global fisheries than commercial fishing does.

### Passage 83

Before the 1970s, researchers investigating Earth's climatological history concentrated on taking core samples from alpine and polar ice. These were relatively accessible, and researchers thought that ice from equatorial mountains would not be informative: the tropics were seen as unvarying from year to year and hence climatologically dull. Beginning in the 1970s, however, Thompson and colleagues began perfecting the process of drilling long, thin cores from remote glaciers in the equatorial mountains of such countries as Peru and Ecuador. Thompson's analysis of these samples suggests that changes in tropical regions—which account for half the world's surface—drive the process of climatological change. This analysis conflicts with other research that seems to show that events in the North Atlantic were the chief cause of rapid climate change in the past.

1. According to the passage, Thompson's analysis conflict with the "other research" in that Thompson's findings
  - A. cast doubt on a widely held assumption about Earth's climate during various periods of history
  - B. demonstrate that the temperature in certain regions has varied widely in the past
  - C. challenge scientists' assumption about the relative stability of tropical temperatures
  - D. undermine the claim that events in the North Atlantic have been largely responsible for changes in Earth's climate
  - E. call into question the notion that accurate inferences about Earth's climatological history can be drawn from ice core sampling

### Passage 84

Recent studies of the gender gap in the history of United States politics tend to focus on candidate choice rather than on registration and turnout. This shift in focus away from gender inequality in political participation may be due to the finding in several studies of voting behavior in the United States that since 1980, differences in rates of registration and voting between men and women are not statistically significant after controlling for traditional predictors of participation. However, Fullerton and Stern argue that researchers have overlooked the substantial gender gap in registration and voting in the South. While the gender gap in participation virtually disappeared outside the South by the 1950s, substantial gender differences persisted in the South throughout the 1950s and 1960s, only beginning to decline in the 1970s.

1. Select the sentence in the passage that offers a possible explanation for a trend.
2. According to the passage, which of the following is true about recent studies of the gender gap in

United States politics?

- A. They inaccurately depict voter preference in the South prior to 1980.
  - B. They have been unduly influenced by changes in voter preferences.
  - C. They fail to recognize important factors affecting levels of voter participation.
  - D. They do not pay sufficient attention to the effect regional differences have on voter preference.
  - E. They are more concerned with the choices that male and female voters make than with the frequency with which they vote.
3. The author of the passage cites “several studies of voting behavior in the United States” to A. suggest that rates of change in political participation have moderated  
B. provide a possible explanation for a propensity among certain researchers  
C. indicate an area of research that is particularly promising  
D. speculate about the implications of a change  
E. suggest that a particular area of study has not been very productive
4. The passage is primarily concerned with  
A. establishing the chronology of a transition  
B. discussing a perceived oversight  
C. explaining the reasons for a change  
D. evaluating an underlying assumption  
E. confirming the merits of a claim

### Passage 85

In *The Life of Charlotte Bronte* (1857), the first and most celebrated biography of novelist Charlotte Bronte, Elizabeth Gaskell promoted the long-persisting romantic view of Bronte as having no connection with the rest of English society at a time when industrialization was causing much turbulence, but as having sprung naturally, like so much purple heather, out of the English countryside. Gaskell also portrayed Bronte as irreproachably proper, incapable of “unladylike” feelings or dangerous views; this was at variance with the subversive spirit Matthew Arnold accurately discerned, albeit with distance, deep within Bronte’s fiction. While correcting many of Gaskell’s errors and omissions at last, even Winifred Gerin’s *Charlotte Bronte: The Evolution of Genius* (1967) failed to discard Gaskell’s viewpoint. Feminists have introduced new interpretations of Bronte’s life, but it is primarily Juliet Barker who takes into account the larger world that impinged on that life—the changing England in which old divisions of class and gender were under pressure.

1. The primary purpose of the passage is to  
A. Consider similarities in several studies of Charlotte Bronte’s life  
B. Defend a particular view of Charlotte Bronte’s life  
C. Discuss a change in perspective on Charlotte Bronte’s life  
D. Depict the social environment in which Charlotte Bronte lived  
E. Portray Charlotte Bronte as an early feminist writer
2. The passage suggest that Matthew Arnold disapproved of Charlotte Bronte’s fiction insofar as he believed that it  
A. Overly romanticized the English countryside  
B. Contained dangerous ideas buried within it  
C. Perpetuated outmoded social distinctions  
D. Failed to represent industrialized society realistically  
E. Reflected an excessive concern with propriety
3. The passage suggests that Gaskell’s biography of Charlotte Bronte advanced the idea that Bronte was

- A. One of the most celebrated of the romantic novelists
- B. An outspoken advocate of social change
- C. Opposed to the industrialization of England
- D. Strongly influenced by the social upheaval of the times
- E. Chiefly the product of a rustic environment.

### Passage 86

Although the term “Palace” is widely used and deeply ingrained in Minoan archaeology, Dries Sen has remarked that the term has been used to describe a number of quite different things and that there is no consensus on what the term signifies. The debate usually centers on the presumed functions of the buildings. Evans assumed that the buildings known as the Palaces had several roles, including royal residences, administrative centers, economic centers, manufacturing centers, and cult centers. Over the years, each of those functions has been called into question. For example, I. Schoep notes, **“The use of the term Palace carries with it a whole host of perhaps unhelpful baggage, which consciously or unconsciously encourages interpretation of the “Palace” as the residence of a royal elite, occupying supreme position within a hierarchical social and political structure. She suggests, using the more neutral term “court-centered building” instead.** The problem, however, comes not from the architectural label one applies, but from making unwarranted assumptions about how the Palaces were used. I used the word “Palaces” (capitalized to signal its arbitrariness) not to imply a range of functions but to refer to a group of buildings that share a set of formal elements.

1. Select the sentence in the passage that summarizes the author’s primary opposition to a particular approach taken by Minoan archaeologists.
2. The author would most likely agree with which of the following as a response to I. Schoep’s argument for using “a more neutral term?”
  - A. The term that I. Schoep favors would exclude some sites that ought to be included in the category.
  - B. Given the profusion of terms that archaeologists have applied to the buildings that have been called Palaces, it is redundant to introduce another one.
  - C. If a new term is introduced, it should be based on the known functions of the buildings that have been called Palaces, rather than on their formal architectural features.
  - D. It is possible to use the term “Palace” without being committed to the term’s functional implications.
  - E. It is not true that the buildings that have been called Palaces are the only evidence for a hierarchical social structure in Minoan society.
3. The author would most likely agree with which of the following statements about the use of the term “Palace” in Minoan archaeology?
  - A. It is useful largely as a matter of convention.
  - B. It should be replaced by a more neutral term.
  - C. It is the correct term for most of the Minoan buildings to which it has been applied.
  - D. It has only recently become popular among archaeologists.
  - E. It has been used to describe buildings that are formally dissimilar to one another.
4. The author would most likely agree with which of the following statements about the buildings discussed in the passage?
  - A. They possess a discernible architectural cohesiveness as a group.
  - B. They probably all had the same or a similar function.
  - C. They almost certainly were not used as royal residences.
  - D. They were more likely to be used as administrative centers than as manufacturing centers.
  - E. They are architecturally similar to a number of other buildings on Crete.
5. The author of the passage suggests which of the following about the term “Palace” in Minoan archaeology?
  - A. It is used by many Minoan archaeologists.
  - B. It is a term that I. Schoep recommends replacing.
  - C. There is little agreement as to the function of the buildings designated by the term.
6. The highlighted quotation from I. Schoep serves in part to

- A. suggest that the debate surrounding the Palaces' function has been misguided
- B. caution against a particular understanding of the Palaces' function
- C. articulate a hypothesis about the Palaces' function that the author goes on to critique
- D. explain why the Palaces were probably not used as residences by a royal elite
- E. support a claim by the author that the term "Palace" should no longer be used

### Passage 87

Late-eighteenth-century English cultural authorities seemingly concurred that women readers should favor history, seen as edifying, than fiction, which was regarded as frivolous and reductive. **Readers of Marry Ann Hanway's novel *Andrew Stewart, or the Northern Wanderer*, learning that its heroine delights in David Hume's and Edward Gibbon's histories, could conclude that she was more virtuous and intelligent than her sister, who disdains such reading.** Likewise, while the naïve, novel-addicted protagonist of Jane Austen's *Northanger Abbey*, Catherine Morland, finds history a chore, the sophisticated, sensible character Eleanor Tilney enjoys it more than she does the Gothic fiction Catherine prefers. Yet in both cases, the praise of history is more double-edged than it might actually appear. Many readers have detected a protofeminist critique of history in Catherine's protest that she dislikes reading books filled with men "and hardly any women at all." Hanway, meanwhile, brings a controversial political edge to her heroine's reading, listing the era's two most famous religious skeptics among her preferred authors. While Hume's history was generally seen as being less objectionable than his philosophy, there were **widespread doubts** about his moral soundness even as a historian by the time that Hanway was writing, and Gibbon's perceived tendency to celebrate classical paganism sparked controversy from the first appearance of his history of Rome.

1. The author's primary purpose is that
  - A. the evidence used in support of a particular argument is questionable
  - B. a distinction between two genres of writing has been overlooked
  - C. a particular issue is more complex than it might appear
  - D. two apparently different works share common features
  - E. two eighteenth-century authors held significantly different attitudes toward a particular
2. According to the passage, which of the following is true of Hume's reputation in the late eighteenth century?
  - A. He was more regarded as a historian than Gibbon
  - B. His historical writing, like his philosophical writing, came to be regarded as problematic
  - C. He was more well-known for his historical writing than for his philosophical writing
  - D. His historic writing came to be regarded as morally questionable because of his association with Gibbon
  - E. His views about classical paganism brought him disapproval among the general reading public
3. The highlighted sentence exemplifies which of the following?
  - A. Cultural authorities' attempt to use novels to support their view about the value of reading fiction
  - B. Eighteenth-century women authors' attempts to embody in their work certain cultural authorities' views about reading
  - C. A point about the educational value of reading books about history
  - D. An instance in which a particular judgment about the value of reading history is apparently presupposed
  - E. A challenge to an assumption about eighteenth-century women's reading habits
4. The author mentions the "widespread doubts" in order to
  - A. support a point about the scholarly merit of Hume's writings
  - B. contrast Hume's philosophical writing with his writing on historical subjects
  - C. suggest that Hanway did not understand the implicit controversy depicting her heroine as reading Hume
  - D. identify an ambiguity in Hanway's depiction of the philosopher in *The Northern Wanderer*
  - E. illustrate a point about a way eighteenth-century fiction sometimes represented historians

## Passage 88

Until recently, the minimum number of human genes was estimated at 90,000, since each gene was known to encode a unique protein that performs a specialized cellular function, and humans make approximately 90,000 **distinct** proteins. It was also assumed that humans would have far more genes than would simpler organisms, such as the roundworm (19,500 genes) or corn (40,000). In 2001, however, geneticists calculated the total number to be between 30,000 and 35,000, a number subsequently revised to under 25,000. This unexpectedly low number may, however, be an indicator of human complexity. By means of “alternative splicing,” a mechanism whose significance was fully understood only recently, single genes in complex organisms can encode multiple proteins, thus allowing such organisms to make highly versatile use of relatively few genes.

1. According to the passage, prior to 2001, the minimum number of human genes was estimated at 90,000 because
  - A. scientists had overestimated the number of proteins made by the human body
  - B. scientists had attempted to account for the effects of alternative splicing
  - C. it was assumed that there would be a one-to-one correlation between proteins and genes in the human body
  - D. it was believed that the human body would have at least twice the number of genes as certain simpler organisms
  - E. it was assumed that in some cases, multiple genes performed the same specialized cellular function
2. In the context in which it appears, “distinct” most nearly means
  - A. probable
  - B. discrete
  - C. notable
  - D. unquestionable
  - E. easily perceived

## Passage 89

George Milner cites three primary problems with the labeling of Cahokia, the large archaeological site by the Mississippi River, as a state rather than a chiefdom. First, finds at Cahokia are essentially similar to finds at other Mississippian chiefdoms, except that the amount of earth moved in building the mounds at Cahokia was greater than elsewhere. Second, fewer people lived at Cahokia than is commonly estimated (Milner estimates that there were only a few thousand inhabitants, more common estimates are 10,000 or 20,000 inhabitants); therefore, extensive taxes, trade, and tribute were not necessary to support them. Finally, while there is evidence of extensive earth movement, craftwork, trade, and elite at Cahokia, this does not indicate that Cahokia was politically centralized, economically specialized, or aggressively expansionistic.

1. The primary purpose of the passage is to
  - A. underscore a characterization
  - B. outline a challenge
  - C. point out an ambiguity
  - D. discuss an oversimplification



E. define a category

2. The passage implies that political centralization is a feature that
- A. has not historically tended to emerge in centers with fewer than 20,000 inhabitants
  - B. distinguished other Mississippian chiefdoms from Cahokia
  - C. is considered characteristic of state but not of chiefdoms
  - D. often results from aggressive expansionism and economic specialization
  - E. has historically been necessary for extensive trade to occur

### Passage 90

Most musicologists agree that the key to expression in music is some sort of deviation from exactitude of rhythm or tone. Yet the implications of this have sometimes been missed. There are countless examples of academics commenting on the poor pitch or rhythm of ostensibly untrained folk musicians, unaware that they are hearing a deliberate style of tremendous emotional nuance. Bela Bartok, with his interest in the traditional music of his native Hungary and its environs, was one of the first to recognize this. He noticed that folk singers would often sing notes “off-key” according to standard Western tuning, but that they would do so systematically and reproducibly. Rather than just random errors caused by poor technique, these were intentional musical interjections.

1. Based on the passage, the author would criticize the “academics” for which of the following?
- A. Overemphasizing the importance of emotional nuance in music
  - B. Applying certain musical standards in cases where such standards were inappropriate
  - C. Evaluating folk music and classical music according to different musical criteria
  - D. Misunderstanding the significance of Bartok’s musicological investigations
  - E. Ignoring important difference between particular folk traditions
2. The passage suggests that which of the following led Bartok to conclude that certain features of traditional music were “intentional musical interjections”?
- A. Bartok’s studying these features in the context of standard Western tuning
  - B. Bartok’s recognition of the technical training required to produce these features
  - C. The wide range of emotion that these features conveyed
  - D. The consistency with which musicians were able to produce these features
  - E. The similarities between these features and certain features of classical compositions

### Passage 91

The structure referred to as Internal Labor Markets (ILM) illustrates how the impact of organizational structure on inequality in earnings between male and female employees can be difficult to predict. ILM firms are characterized by clusters of hierarchically arranged jobs, internal promotion, and structured career paths. Some research suggests that the wages of women in ILM firms, because such firms practice internal promotion, may actually be suppressed because these women may be disproportionately assigned to paths that reach only low levels of the hierarchy. These findings run counter to the theory that the formalized employment policies (written job descriptions and personnel evaluations) associated with ILM’s should promote gender equality because they reduce managers’ discriminatory behavior by forcing them to document their actions.

Firm size is an aspect of organizational structure with similarly counterintuitive effects on earnings. Large organizations are more visible and therefore might be expected to discriminate less because of greater government scrutiny. However, bureaucratization, which is positively correlated with firm size, may lead to greater gender inequities. Some researchers suggest that bureaucratization enables organizations to establish detailed divisions of labor that often relegate women to lower-echelon jobs.

1. The primary purpose of the passage is to
- A. argue that more needs to be done to remedy inequality in earnings between men and women

- B. compare opposing viewpoints about the primary reason for inequality in earnings between men and women
  - C. question the viability of proposed solutions to the problem of inequality in earnings between men and women
  - D. discuss the effect of organizational structure on inequality in earnings between men and women
  - E. articulate a concern about the reliability of the studies examining the effect of organizational structure on inequality in earnings between men and women
2. Which of the following is an aspect of ILM firms that the author argues may be expected to promote gender equality?
- A. Clearly defined career paths
  - B. Broadly defined job responsibilities
  - C. Increased bureaucratization
  - D. Formalized employee evaluations
  - E. Formalized training programs
3. It can be inferred that the author of the passage believes which of the following about government scrutiny of employment practices?
- A. Small businesses are less likely to be subject to such scrutiny than are large firms.
  - B. Such scrutiny is less efficient for the government when it is applied to small firms than when it is applied to large firms.
  - C. The goal of such scrutiny is to detect organization wide pattern of discrimination rather than isolated instances of discrimination.
  - D. Such scrutiny is based on the premise that detailed divisions of labor can exacerbate the problems of discrimination.
  - E. Such scrutiny is intended primarily to examine the fairness of personnel evaluations to women.

## Passage 92

The manuscripts of the eight extant Latin tragedies identify the plays as the *Marci Lucii Annei Senecae Tragoediae*. Since nobody of that name is known, modern scholars believe the dramas to be the work of Lucius Annaeus Seneca the Younger, the well-known philosopher, orator, and politician. Clearly, the tragedies were written during Seneca's lifetime: internal references to earlier poets, most notably Ovid, indicate that the dramas cannot have been composed prior to the second decade C.E., and the plays must have been written by 96 C.C., when Quintilian quotes Medea, one of the tragedies.

It is remarkable, however, that Seneca himself never mentions the plays, since there are certainly passages in them that could be used to illustrate points of his philosophy. There are at least two possible explanations. In the early Roman Empire, playwrights were sometimes exiled or executed for lines construed as directed against the emperor; thus, Seneca's silence may be simple prudence. But if anyone could safely attach his name to dramas, surely it would be Seneca, the emperor's tutor. And although Herrmann offers Seneca's modesty as an explanation, Seneca is not averse to referring to his other writings. The evidence for equating Seneca with the author of the tragedies seems circumstantial.

1. The author mentions Medea primarily in order to
- A. Given an example of a play in which references to certain authors can be used to determine when the *Marci Lucii Annei Senecae Tragoediae* were composed.
  - B. Acknowledge the possibility that the *Marci Lucii Annei Senecae Tragoediae* may have been written by Quintilian rather than Seneca.
  - C. Suggest that certain of the *Marci Lucii Annei Senecae Tragoediae* may have been written near the end of Seneca's lifetime.
  - D. Argue that Marci may have been one of the last of the eight plays in the *Marci Lucii Annei Senecae Tragoediae* to be written.
  - E. Indicate how the latest possible date for the time period during which the *Marci Lucii Annei Senecae Tragoediae* were composed might be established.
2. The author of the passage makes which of the following claims about the eight extant Latin tragedies?
- A. There is only circumstantial evidence that the plays were all written by the same author.
  - B. Scholars have persistently attributed the plays to Seneca despite evidence that some of them may have been composed prior to his lifetime.

- C. Evidence in the manuscripts of the plays identifies them as having been written by Lucius Annaeus Seneca the Younger.
  - D. The plays contain some lines that have been construed as being directed against the emperor.
  - E. The plays contain material that could illustrate certain aspects of Seneca's philosophy.
3. The author of the passage would most likely agree that if Seneca had in fact written the tragedies, then Seneca probably would have
- A. Used the plays as platforms for his philosophical ideas.
  - B. Referred to the plays in some of his other writings.
  - C. Been in danger of exile or execution for certain lines in the plays.
  - D. Avoided attaching his name to the plays out of modesty.
  - E. Written the plays during the latter portion of his lifetime.
4. The author implies which of the following about Seneca's status as the emperor's tutor?
- A. It enabled Seneca to illustrate points of his philosophy to the leaders of the early Roman Empire.
  - B. It had more of an effect on Seneca's career as a dramatist than it did on his career as a philosopher, orator, and politician.
  - C. It might have offered Seneca some protection from certain dangers playwrights typically faced.
  - D. It required Seneca to avoid making references to his various writings.
  - E. It required that Seneca take particular care that his writings could not be construed as being directed against the emperor.
5. Each of the following assertions consistent with Seneca's authorship of the plays appears in the passage EXCEPT
- A. There is no known author by the name to which the plays are attributed.
  - B. Playwrights in the early Roman Empire were politically vulnerable.
  - C. There are references in the play to Ovid.
  - D. There are references in the plays to Seneca's philosophical works.
  - E. There are quotations from the plays in the works of Quintilian.

### Passage 93

**Recent studies** of the Philippine fruit bat fauna have confirmed some previous hypotheses regarding bats on oceanic islands: for example, species richness (the number of different species in a particular area) and abundance are generally highest in the lowlands and decrease with increasing elevation. **With few exceptions, each endemic species (species native to a particular place) is restricted to the modern islands that made up a single island during periods of low sea level, and genetic differentiation has been influenced by the ecology of the species and the current and past geographic and geological conditions.** However, far more previous hypotheses have been overturned than supported. Some endemic Philippine species use disturbed habitat as extensively as nonendemic species that are widespread in Southeast Asia. Levels of genetic variation within all species are high, not low, and rather than showing evidence of an intrinsic vulnerability to extinction from natural causes, independent lineages of these bats have persisted in rather small areas for very long periods of time (often millions of years) in spite of frequent typhoons and volcanic eruptions. While colonization from outside areas has clearly contributed to the high species richness, speciation within the archipelago has contributed at least a quarter of the total species richness, including many of the most abundant species.

1. The primary purpose of the passage is to
- A. Draw on studies of the Philippine fruit bat in proposing a new theory regarding bats on oceanic islands
  - B. Show how recent research on the Philippine fruit bat reflects debates about bats on oceanic islands.
  - C. Argue for the relevance of certain new evidence pertaining to the Philippine fruit bat for the study of bats on oceanic islands
  - D. Discuss recent investigations of the Philippines fruit bat in light of conventional wisdom regarding bats on oceanic islands
  - E. Explain why the Philippine fruit bat is atypical among bats on oceanic islands in terms of genetic variation

2. The primary function of the highlighted text is to
- A. Identify a finding from the Philippine fruit bat studies that will have a significant impact on how oceanic bats generally are viewed
  - B. Point out a hypothesis that has been the subject of considerable disagreement among researchers studying oceanic bats
  - C. Present evidence that is difficult to reconcile with other recent findings regarding the Philippine fruit bat
  - D. Illustrate a widely held view about oceanic bats generally that was confirmed by the Philippine fruit bat studies
  - E. Identify a feature of the Philippine fruit bat that does not appear to apply to oceanic bats generally
3. Which of the following can be inferred from the passage about the “recent studies”?
- A. They point to the need for a significantly revised perspective on oceanic island bats generally.
  - B. They were undertaken with the assumption that Philippine fruit bats were somewhat atypical among oceanic bats.
  - C. They remain somewhat controversial among researchers because of the number of standard hypotheses that they tested.
  - D. They have largely confirmed what scientists thought about the Philippine fruit bat.
  - E. They suggest that bats on oceanic islands are more vulnerable to extinction than previously thought.

### Passage 94

Recent studies of ancient Maya water management have found that the urban architecture of some cities was used to divert rainfall runoff into gravity-fed systems of interconnected reservoirs. In the central and southern Maya Lowlands, this kind of water control was necessary to support large populations throughout the year due to the scarcity of perennial surface water and the seasonal availability of rainfall. Some scholars argue that the concentration of water within the urban core of these sites provided a centralized source of political authority for Maya elites based largely on controlled water access. Such an argument is plausible; however, it is less useful for understanding the sociopolitical implications of water use and control in other, water-rich parts of the Maya region.

1. The author of the passage implies which of the following about the political importance of the type of urban water management system described in the passage?
- A. Because the system was centralized, it allowed political control over a widely scattered population
  - B. The knowledge required to design and maintain the system became the pretext for Maya elites' political authority
  - C. By selectively limiting access to water, Maya elites used the system to curb challenges to their authority
  - D. The system is not sufficient to explain the sources of centralized political power in all parts of the Maya region
  - E. The system's continued maintenance required political authorities to exert control over an increasing proportion of economic resources.

For the following question, consider each of the choices separately and select all that apply.

2. According to the passage, which of the following is true of the water management systems in the central and southern Maya Lowlands?
- A. They were implemented in part because of the prevailing pattern of rainfall.
  - B. They were an integral part of lowland cities' architecture
  - C. They were needed because of insufficient resources such as ponds, rivers, and lakes in the lowlands.

### Passage 95

Much recent work has examined the claim that women encounter increasing obstacles relative to men as they move up the organizational ladder in business. This **proposition**, which we term the increasing-disadvantage model, is a core element of the popular glass ceiling metaphor. Despite continued widespread public acceptance of the glass ceiling idea and some consistent findings, most

research to date has failed to support the increasing-disadvantage model. Indeed, several studies based on private-sector firms find that women's mobility prospects improve, rather than decline, as they climb upward in corporate hierarchies. In the public sector, researchers have found either no sex differences in mobility or a larger female disadvantage in lower grades.

Comparing cross-sectional national samples of workers, Baxter and Wright found no evidence in the United States, and only limited evidence in Sweden and Australia, that women's probability of being located in a higher versus a lower hierarchical level declined relative to men's at higher levels. Taken together, these findings suggest that the glass ceiling may be a myth. Women's scarcity in top organizational ranks may simply represent the cumulative effect of a constant-or even decreasing-disadvantage at successive hierarchical levels.

1. The primary purpose of the passage is to
  - A. compare two explanations for a recurring problem
  - B. summarize evidence relevant to a hypothesis
  - C. point out inconsistencies in a set of findings
  - D. account for the persistence of a point of view
  - E. reconsider the origins an ongoing issue
2. Based on the passage, which of the following is true of the "limited evidence" from Sweden and Australia?
  - A. It lends support to the increasing-disadvantage model
  - B. It correlates with findings on women's mobility from most other countries.
  - C. It suggests important cultural similarities between these countries.
  - D. It points to a phenomenon not widely recognized in these countries.
  - E. It helps explain the persistence of the glass ceiling
3. The author of the passage and those accepting the "proposition" would most likely agree with which of the following?
  - A. Lower down on the organizational ladder, women tend to experience fewer disadvantages than they do at higher levels
  - B. Women experience no more disadvantages in moving up the organizational ladder than do men
  - C. The degree of disadvantage experienced by women remains constant as women move up the organizational ladder
  - D. The obstacles to women's advancement vary significantly from country to country
  - E. Women face some disadvantage at each stage of the organizational ladder

#### Passage 96

In various writings from the 1940s on popular culture, George Orwell examined commercial texts such as comics and crime novels, seeking out political meanings that ran counter to what he considered an inherent tendency toward socialism in the English common people. The public, he concluded, was often being duped by a covert patrician conservatism, conveyed through commercial culture, that restrained the people's radical instincts. These works constituted some of Orwell's greatest writing, yet those who see him as a lone precursor to today's cultural studies, a field in which scholars examine the ideological implications of popular culture, are mistaken. A number of left-wing writers in the 1930s, many of them associated with the Communist Party, saw the need to take popular culture seriously.

1. The passage suggests which of the following about George Orwell?
  - A. He regarded commercial texts as vehicles for the views of ordinary people.
  - B. He regarded many commercial texts as having an insidious effect on readers.
  - C. He considered commercial texts such as comics to be unworthy of serious analysis.
  - D. He initiated a new direction in scholarship by taking popular culture seriously.
  - E. He regarded commercial texts as inappropriate vehicles for political ideas.

#### Passage 97

In the 1960s, population geneticists with a theoretical bent found female mate choice fascinating for its possible role in the process of speciation, the splitting of a single interbreeding population into two reproductively isolated populations. Why? On one hand, zoologists such as Mayr argued that all speciation must start with geographic isolation. Conversely, theoretical biologists argued that if part of a population were to suddenly change its mating behavior, then a previously unified population might split into two independently breeding populations without any physical separation, a process known as “sympatric speciation.” How might such a change occur? Changes in female choice represented one of the most likely mechanisms and provided an avenue for biologists to conceive of speciation without geographic isolation.

1. The primary purpose of the passage is to
  - A. discuss the prevalence of female mate choice
  - B. present two different perspectives on female mate choice
  - C. consider an alternative theory of speciation
  - D. examine the likelihood of significant changes to mating behavior
  - E. explain the conditions that must be present for speciation to occur
2. Female mate choice is presented in the passage primarily as
  - A. a means by which a proposed phenomenon might occur
  - B. a theorized behavior whose existence remains controversial
  - C. an observed occurrence that remains difficult to explain
  - D. a type of empirical data that validates a new theory
  - E. a cause of a frequently observed behavior

## **Passage 98**

Dorothy Mermin’s 1989 discussion of the ballads in Elizabeth Barrett Browning’s *Poems* (1844) reflects an anti-sentimental bias common among twentieth-century scholars. Mermin notes that modern readers tend to find the ballads uncomfortably mawkish. Forced to admit the ballads’ popularity with **Barrett Browning’s contemporaries**, Mermin dismissively remarks that “[their] main appeal is to the feelings.” Mermin’s aesthetic principles are revealed in her description of some of Barrett Browning’s political writings as “aesthetically more attractive” than the ballads because they are detached, analytical, and complex. Acknowledging that Barrett Browning took “the essence of poetry to be feeling,” aesthetic value might arise from their sentimentality. Yet Victorian critics recognized in these sentimental verses both poetic force and intellectual power.

1. Which of the following most accurately represents the author’s central point in the passage?
  - A. Twentieth-century scholars tended to give disproportionate emphasis to only one part of Barrett Browning’s literary output.
  - B. An essential virtue of poetry is its ability to appeal strongly and directly to the feelings of readers.
  - C. A lack of sympathy for certain literary qualities may limit a critic’s assessment of Barrett Browning’s work.
  - D. Barrett Browning has been unfairly dismissed by critics who fail to recognize the sentimentality of the ballads in *Poems* (1844).
  - E. Twentieth-century scholars and Victorian critics disagree about whether the ballads in *Poems* (1844) are representative of Barrett Browning’s aesthetic goals.
2. The author mentions “Barrett Browning’s contemporaries” partly to
  - A. criticize their evaluation of the ballads in *Poems* (1844).
  - B. call into question the objectivity of some of Mermin’s views about the literary tastes of Victorian readers.
  - C. qualify an assertion made earlier in the passage about an anti-sentimental bias shared by many twentieth-century scholars.
  - D. demonstrate Mermin’s strategy for responding to facts that might appear to be at odds with her argument.
  - E. establish that literary taste cannot be fully understood unless situated in a historical context.

## Passage 99

In the nineteenth century, numerous lines of evidence threatened theories that viewed Earth's continents as static. Scientists noticed that fossil organisms in certain regions reflected ecosystems with widely varying climates, ranging from cold and dry to lushly tropical. Some argued that the position of Earth's polar latitudes had shifted through various continents over time. **However, it was also noticed that prior to the Cretaceous period, similar or identical fossils were found on continents separated by deep oceans.** During and after the Cretaceous, these biological linkages largely disappeared. The idea of temporary land bridges was advanced to account for non-marine organisms' dispersal across continents. However, it soon became evident that the continents' splitting apart and drifting away from a **common** supercontinent could explain both observations.

1. Which statement best explains the function of the highlighted sentence?
  - A. It contradicts the idea that the position of Earth's polar latitude had shifted over time.
  - B. It presents evidence that does not easily fit theories that viewed continents as static.
  - C. It calls into question the idea that fossil organisms in a given region could reflect varying climates.
  - D. It explains why certain biological connections disappeared during the Cretaceous.
  - E. It suggests that a common supercontinent could not have split apart during the Cretaceous period.
2. In the context in which it appears, "common" most nearly means.
  - A. elementary
  - B. ordinary
  - C. shared
  - D. widespread
  - E. natural

## Passage 100

Since the 1970s, archaeological sites in China's Yangtze River region have yielded evidence of sophisticated rice-farming societies that predate signs of rice cultivation elsewhere in East Asia by a thousand years. Before this evidence was discovered, it had generally been assumed that rice farming began farther to the south. This scenario was based both on the geographic range of wild or free-living rice, which was not thought to extend as far north as the Yangtze, and on archaeological records of very early domestic rice from Southeast Asia and India (now known to be not so old as first reported). Proponents of the southern-origin theory point out that early rice-farming societies along the Yangtze were already highly developed and that evidence for the first stage of rice cultivation is missing. They argue that the first hunter-gatherers to develop rice agriculture must have done so in this southern zone, within the apparent present-day geographic range of wild rice.

Yet while most strands of wild rice reported in a 1984 survey were concentrated to the south of the Yangtze drainage, two northern outlier populations were also discovered in provinces along the middle and lower Yangtze, evidence that the Yangtze wetlands may fall within both the present-day and the historical geographic ranges of rice's wild ancestor.

1. Which of the following, if true, would most clearly undermine the conclusion that the author makes based on the 1984 survey?
  - A. Areas south of the Yangtze basin currently have less wild-rice habitat than they once did.
  - B. Surveys since 1984 have shown wild rice populations along the upper Yangtze as well as along the middle and lower Yangtze.
  - C. The populations of wild rice along the Yangtze represent strains of wild rice that migrated to the north relatively recently.
  - D. Early rice-farming societies along the Yangtze were not as highly developed as archaeologists once thought.
  - E. In East Asia, the historical geographic range of wild rice was more extensive than the present-day geographic range is.
2. Based on the passage, skeptics of the idea that rice cultivation began in the Yangtze River region pointed to which of the following for support?

- A. Lack of evidence supporting the existence of rice-farming societies along the Yangtze at an early date
- B. Lack of evidence regarding the initial stages of rice cultivation in the Yangtze region
- C. Recent discoveries pertaining to the historical geographic range of rice's wild ancestor
- D. New information regarding the dates of very early domestic rice from Southeast Asia
- E. New theories pertaining to how hunter-gatherers first developed rice agriculture in East Asia

3. Which of the following can be inferred from the passage about the “southern-origin theory?”

- A. The theory is based on an unconventional understanding of how hunter-gatherers first developed rice agriculture.
- B. The theory fails to take into account the apparent fact that evidence for the first stage of rice cultivation in the north is missing.
- C. The theory was developed primarily in response to a 1984 survey of wild rice's geographic range.
- D. Reassessment of the dates of some archaeological evidence has undermined support for the theory.
- E. Evidence of sophisticated rice-farming societies in the Yangtze region provides support for the theory.

### Passage 101

The disappearance of Steller’s sea cow from the Bering and Copper islands by 1768 has long been blamed on intensive hunting. But its disappearance took only 28 years from the time Steller first described the species, a remarkably short time for hunting alone to depopulate the islands, especially given the large populations initially reported. However, by 1750, hunters had also targeted nearby sea otter populations. Fewer otters would have allowed sea urchin populations on which the otters preyed to expand and the urchins’ grazing pressure on kelp forests to increase. Sea cows were totally dependent on kelp for food, and within a decade of the onset of otter hunting Steller noted that the islands’ sea cows appeared malnourished.

1. Which of the following can be inferred from the passage about kelp forests in the Bering and Copper islands between 1750 and 1768?

- A. They were reduced significantly.
- B. They disappeared entirely from the region.
- C. They were the primary food source for sea otters.
- D. They were harvested in record numbers by humans
- E. They increased pressure on sea urchin populations.

2. According to the passage, it is likely that during the mid-1700s, sea urchin populations near the Bering and Copper islands

- A. were diminished by sea cow predation
- B. experienced substantial increases
- C. migrated to waters with more plentiful food supplies
- D. were reduced by the pressures of hunting
- E. appeared to be malnourished

### Passage 102

African American painter Malvin Gray Johnson (1896-1934) grew up in urban environments, including New York City, but in 1934 visited and painted scenes from the small town of Brightwood, Virginia. Some critics have celebrated the Brightwood paintings, which depict a vibrant natural landscape and close-knit Black community, as Johnson’s discovery of an “authentic” African American life in the rural South. This view, which reflects a common tendency to regard African American artists’ imagery as unmediated documentation of direct experience, overlooks Johnson’s interpretive thinking. In truth, Johnson’s conceptualization of the South was largely formed before he left New York, where he had studied the French expressionist Paul Cézanne. **Johnson’s Brightwood paintings reflect Cézanne’s stylistic influence and tendency to present rural life as an idyllic alternative to modern industrialism.**



1. The primary purpose of the passage is to
  - A. contest a particular interpretation of Johnson's Brightwood paintings
  - B. compare Johnson's Brightwood paintings to French Expressionist art
  - C. use information about Johnson's historical context to illuminate the social significance of his Brightwood paintings
  - D. explain why the work of African American painters is sometimes misunderstood
  - E. call attention to an aspect of Johnson's technique that has been largely overlooked

For the following question, consider each of the choices separately and select all that apply.

2. The highlighted sentence has which of the following functions in the passage?
  - A. It expands upon a point made in the previous sentence.
  - B. It helps explain a common tendency described earlier in the passage
  - C. It identifies a way in which Johnson sought to differentiate his work from that of other artists.

### Passage 103

Ecologists had assumed that trees in the consistently warm tropics grew at a slow but steady rate, unvarying from year to year. However, a study at La Selva, Costa Rica, showed that trees grew less in hotter years and more in cooler ones: between 1984 and 2000, dramatic differences occurred in the six species of trees studies, with trees adding twice as much wood in some cooler years as they did in the scorching El Nino year of 1997-1998. Because tree growth is an index of the balance between photosynthesis, in which trees absorb carbon dioxide (CO<sub>2</sub>) from the atmosphere and release oxygen, and respiration, in which the opposite occurs, the La Selva data were the first hint that rapidly rising global temperatures, driven by human-generated emissions of CO<sub>2</sub>, may be pushing tropical forests to release more CO<sub>2</sub>, thereby intensifying global warming. This raised serious questions about a popular theory that tropical forests act as a sponge, soaking up much of the excess CO<sub>2</sub> that humans pump into the atmosphere. The La Selva data are consistent with a model of global CO<sub>2</sub> flux developed by Keeling, who concluded that the amount of CO<sub>2</sub> taken up in tropical landmasses rose in cooler years and fell in hotter ones, accounting for year-to-year changes in the amount of CO<sub>2</sub> that stays in the atmosphere.

1. The primary purpose of the passage is to
  - A. present additional evidence to support a popular theory
  - B. show the underlying similarities of two seemingly contradictory theories
  - C. point out the implications of a particular study for two related theories
  - D. provide an alternative explanation for a well-documented phenomenon
  - E. reconcile two competing theories that explain a phenomenon
2. The passage supports which of the following statements about the trees in the La Selva study?
  - A. During the El Nino year, they added considerably less wood than they did in cooler years during the period of 1984-2000.
  - B. During the El Nino year, they typically had higher rates of photosynthesis than they did in other years during the period of 1984-2000.
  - C. During the El Nino year, they released considerably more oxygen than they did in cooler years during the period of 1984-2000.
  - D. During the El Nino year, they took up considerably more CO<sub>2</sub> than they did in cooler years during the period of 1984-2000.
  - E. The amount of CO<sub>2</sub> that they absorbed remained constant throughout the entire period of 1984-2000.
3. The passage suggests that as temperatures rise, trees in the tropical regions
  - A. continue to grow at a slow but steady rate
  - B. grow less and intensify photosynthesis
  - C. emit more CO<sub>2</sub> and oxygen
  - D. increase overall respiration and decrease overall photosynthesis
  - E. grow more and absorb more CO<sub>2</sub>

## Passage 104

*Hard Times*, Charles Dickens' shortest novel, was written and published in 1854. Despite the sensational success of its two immediate predecessors, *David Copperfield* and *Bleak House*, and its immediate successors, *Little Dorritt* and *A Tale of Two Cities*, *Hard Times* seems to have been Dickens' least popular novel during his own lifetime and subsequently. One critic speculated that editorial cuts imposed on the novel for serialization were responsible. However, as Jane Jacobs points out, *Hard Times* was serialized in *Household Words*, a periodical that Dickens not only founded but edited. Part of the reason for the book's relative unpopularity may have been its despairing message, its depiction of pervasive emptiness in almost everything life has to offer, from marriage and family to success and community. Jacobs also suggests that the book's structure may have played a role: action is slow and scant throughout, and descriptions and conversations during the first two thirds of the book are repetitious. While the book's tone changes abruptly in the last section, when Dickens, the master storyteller, jogs his characters into life by enmeshing them in convoluted coils of plot, the reader must first endure the tedious way in which Dickens establishes the novel's settings and characters.

1. The passage suggests which of the following about the last section of *Hard Times*?
  - A. The last section compares unfavorably with the first part of the book in terms of literary quality.
  - B. In the last section the settings are presented in a more tedious fashion than is the case in other Dickens' works mentioned in the passage.
  - C. In the last section the characters tend to be more optimistic than they are in the first part of the book.
  - D. The last section is atypical of Dickens' general storytelling style.
  - E. The last section would be more likely to appeal to readers than would the first part of the book.
2. The author of the passage mentions *David copperfield*, *Bleak House*, *Little Dorritt*, and *A Tale of Two Cities* most likely in order to
  - A. provide a context that helps to explain the public and critical reaction to *Hard Times*
  - B. present examples of other works by Dickens that were not initially commercially successful
  - C. suggest that *Hard Times*' lack of popularity was an anomaly during this period in Dickens' career
  - D. imply that the quality of Dickens' writing improved over time
  - E. question the idea that the novels immediately preceding and following *Hard Times* were extraordinarily successful
3. Each of the following is mentioned in the passage as a possible reason for the relative unpopularity of *Hard Times* EXCEPT for the
  - A. repetitive conversations throughout most of the book
  - B. novel's depiction of marriage and family
  - C. novel's despairing message
  - D. convoluted plot development in the last part of the book
  - E. way that the novel establishes its characters

## Passage 105

The early twentieth century saw an effort among White Americans in the United States to promote American Indian arts and crafts, particularly in the Southwest. Some scholars see this effort as part of the broader arts and crafts movement active in Britain and the United States at the time, whose adherents sought a sense of authenticity in works of preindustrial cultures and production modes as a reaction against mass industrialization. Other scholars have argued that the proponents of American Indian arts and crafts consciously attempted to transform the Southwestern economy from one known primarily for ranching, agriculture, and mining to one known for its picturesque scenery and native culture. While insightful, these explanations neglect two significant aspects of the American Indian arts and crafts movement: it was almost exclusively a women's phenomenon, and it was highly heterogeneous.

1. It can be inferred that one of the fundamental differences between the two groups of scholars mentioned in the passage is their view of
  - A. the extent to which White Americans consciously sought to promote American Indian arts and crafts

in the Southwest

- B. the extent to which a reaction against mass production motivated adherents of the turn-of-the-century arts and crafts movement in Britain and the United States
- C. the extent to which the American Indian arts and crafts movement in the Southwest during the early twentieth century was characterized by heterogeneity
- D. how the British and United States arts and crafts movements at the turn of the twentieth century differed from one another
- E. what motivated the effort to promote American Indian arts and crafts in the Southwest in the early twentieth century

2. With which of the following statements about the explanations discussed in the passage would the author most likely agree?

- A. Neither one attempts to explain why there was an effort to promote American Indian arts and crafts in the United States during the early twentieth century.
- B. Both are unusual in that they recognize the heterogeneity of the American Indian arts and crafts movement.
- C. Each offers a valuable perspective on the early twentieth century movement to promote American Indian arts and crafts.
- D. Neither one acknowledges the extent to which the American Indian arts and crafts movement was influenced by the larger arts and crafts movement.
- E. Although both acknowledge that women played an important role in the movement to promote American Indian arts and crafts, they disagree on the extent of that role.

### Passage 106

Instances of “galactic cannibalism”—mergers in which large galaxies completely consume smaller ones—may be fairly common. Tidal forces produced by the Milky Way’s powerful gravity, for example, appear to be dismantling and engulfing a dwarf galaxy in the constellation Sagittarius, producing **large clumps and streamers of stars** connecting the two galaxies. Astronomers have also observed two dense clusters of stars and gas at the heart of the Andromeda galaxy, an apparent “double nucleus” that may contain the remnant of a cannibalized dwarf galaxy. But this twin-lobed appearance could also be created by two parts of a single nucleus bisected by a lane of dust. Scientists believe that only about 25 percent of such apparent double nuclei actually represent galactic cannibalism. Many of the rest result from the illusion of proximity that occurs when objects at different distances appear along the same line of sight; others consist of debris from galactic “collisions,” in which one galaxy has passed through another without merging, causing waves of new star formation.

- 1. The primary purpose of the passage is to
  - A. suggest that galactic cannibalism occurs more commonly than previously supposed
  - B. indicate the difficulty of determining whether galactic cannibalism actually occurs
  - C. demonstrate flaws in the evidence used to prove that galactic cannibalism actually occurs
  - D. outline the process by which galactic cannibalism takes place
  - E. present evidence that galactic cannibalism has occurred in a given instance
- 2. The “large clumps and streamers of stars” represent observational data cited by the author of the passage as an example of
  - A. the star configuration typical of a dwarf galaxy
  - B. galactic cannibalism that is still in progress
  - C. waves of new star formation resulting from a galactic collision
  - D. debris from a galactic collision coalescing into a double nucleus
  - E. material connecting the two nuclei of a galaxy formed by galactic cannibalism
- 3. According to the passage, a true double nucleus may be produced by the
  - A. collision of two dwarf galaxies
  - B. incorporation of a dwarf galaxy into a larger galaxy
  - C. merging of two galaxies of approximately equal size
  - D. separation of a single nucleus into two parts by a lane of dust
  - E. waves of new star formation resulting from an instance of galactic cannibalism

### Passage 107

The ability to recognize specific individuals has profound implications for the evolution of complex social behaviors such as reciprocal altruism. Many researchers assumed that recognition of individuals, a phenomenon predominantly observed in laboratory studies of fish, might also operate extensively in free-ranging fish populations, where it could underpin these complex interactions. In fact, evidence of individual recognition in free-ranging fish populations is equivocal. The possibility exists that for many species, individual recognition observed in the laboratory might be an artifact of experimental designs, which enforce prolonged interaction between individuals and which prevent the diluting effects on social structure of immigration into and emigration from the shoal, factors that in nature would erode group stability and prevent the learning of individual identities.

1. Click on the sentence in the passage that speculates about the effect of human intervention on an observation.

For the following question, consider each of the choices separately and select all that apply.

2. The author would likely agree with which of the following statements about the prevalence of specific individual recognition that occurred in fish in the laboratory studies discussed?

- A. It suggests that the laboratory studies were well designed to simulate the natural habitats of the fish studied.
- B. It might have been inflated due to continued exposure to the same individuals.
- C. It does not provide reliable evidence about the behavior of free ranging fish.

### Passage 108

Scholars often attribute the emergence of a new conception of women writers as literary artists to elite, male-dominated venues like the *Atlantic Monthly*, which gained influence during the 1860s and 1870s. The careers of Mary Gibson and other women writing during the 1850s, however, suggest a different account of the transformation of American female authorship—pushing its inception into the antebellum period and locating its origins in more popular venues. Far from waiting for the elite imprimatur of the *Atlantic*, writers like Gibson took advantage of the opportunities for publication provided by midcentury story papers (periodicals containing popular fiction). Women supplied much of the material for story papers and, in the process, presented striking images of female authorship and artistry to thousands readers.

1. The author of the passage would most likely agree with which of the following statements about writers like Gibson?

- A. They were the primary audience for midcentury story papers.
- B. They were inspired by the female authors who wrote prior to the antebellum period.
- C. They were publicly committed to advancing the image of female writers as literary artists.
- D. They were less dependent on elite publications than many accounts of female authorship suggest.
- E. They read more widely than most scholars of antebellum female authorship tend to acknowledge.

2. Which of the following can be inferred from the passage regarding the *Atlantic Monthly*?

- A. It resisted the changing conception of women as literary artists.
- B. It declined in importance following the antebellum period.
- C. It featured female writers despite being dominated by males.
- D. Its audience was similar to that of midcentury story papers.
- E. Its standing among female writers was greater than that of midcentury story papers.

### Passage 109

The conventional story of the American colonists' revolt against Britain holds

that the founders of the United States established a form of government that, although flawed by its leaders' failure to recognize the rights of women and African Americans, was nevertheless unsurpassed in its promise of human equality. There is, however, a cynical counterstory, which details the founders' lust for property and their crass manipulation of the colonial population, and characterizes leaders like Thomas Jefferson as having wielded promises of equality merely as deceptive tools, discarded once the Revolution was won, and as having deliberately allowed the United States to be governed by a small, powerful elite. Both of these stories assume that a homogeneous revolutionary leadership employed an equally homogeneous egalitarian discourse to justify its actions. Even a cursory examination of the public discourse from the period, however, makes it clear that the leadership was anything but homogeneous in its discourse, and that **overall the relative emphasis placed on the words "liberty" and "property" was far greater than that placed on "equality"**.

1. The author of the passage implies that an examination of public discourse from the Revolutionary period shows that the
  - A. revolutionary leadership was homogeneous in its attempts to justify its actions.
  - B. revolutionary leaders were more concerned with liberty and property than with equality.
  - C. revolutionary leaders initially desired to provide freedom and wealth for all colonial citizens.
  - D. colonial population was cynically manipulated into supporting the revolutionary leadership.
  - E. conventional story that the revolutionary leadership ignored the rights of women and African Americans is wrong.
2. According to the passage, which of the following best summarizes the primary difference between two accounts the American Revolution?
  - A. The first account acknowledges the failure of the revolutionary leaders to recognize the rights of women and African Americans, while the second does not address the issue of equal rights.
  - B. The first account claims that the government succeeded in its goal of providing equal rights for all of the colonists, while the second reports that the new nation was governed by a small, powerful elite.
  - C. The first account employs traditional historical scholarship and sources, while the second reports that new nation was governed by a small, powerful elite.
  - D. The first account suggests that the revolutionary leaders sincerely promised equality, while the second reports that the leaders' false promises of equality were a deceptive means of gaining colonists' support
  - E. The first account does not address the issue of public discourse, while the second describes how public discourse shaped the outcome of the Revolutionary War.
3. A subsequent research uncovered the following materials, which of them would most clearly call into question the position taken by the author in the highlighted portion
  - A. A speech given by Thomas Jefferson during the Revolutionary War in which he

speaks about the Revolution's goal of providing all citizens with equal access to property.

B. Written statements by British leaders of the Revolutionary period revealing that the British monarchy continually warned its colonial subjects that the revolutionary leaders were making false promises of liberty and equality in order to gain support

C. Unpublished essays by major revolutionary leaders contradicting one another with regard to the Revolution's position on human equality

D. The diaries of revolutionary leaders revealing that the goals of the revolution were defined differently by different people and the leaders of the new government embraced many different ideals and principles.

E. A series of leaflets written by various revolutionary leaders and distributed widely among the colonial population detailing the Revolution's consistent dedication to the principles of human equality.

### Passage 110

The revival of mural painting that has occurred in San Francisco since the 1970s, especially among the Chicano population of the city's Mission District, has marked differences from its social realist forerunner in Mexico and the United States some 40 years earlier. Rather than being government sponsored and limited to murals on government buildings, the contemporary mural movement sprang from the people themselves, with murals appearing on community buildings and throughout college campuses. Perhaps the biggest difference, however, is the process. In earlier twentieth-century Mexico, murals resulted from the vision of individual artists. But today's murals are characteristically the products of artists working with local residents on design and creation.

Such community engagement is characteristic of the Chicano art movement as a whole, which evolved from the same foundations as the Chicano civil rights movement of the mid-1960s. Both were a direct response to the needs of Chicanos in the United States, who were fighting for the right to adequate education, political empowerment, and decent working conditions. Artists joined other cultural workers in making political statements and played a key role in taking these statements to the public. They developed collectives and established **cultural centers** that functioned as the public-relations arm of the Chicano sociopolitical movement.

1. The primary purpose of the passage is to
  - A. argue for the superiority of a style of art
  - B. consider the impact of an art movement
  - C. describe the political content of a certain works of art
  - D. detail the characteristic style of an art movement
  - E. place an art movement in its historical context
2. According to the passage, which of the following statements about the "cultural centers" is true?
  - A. They were the venue where many later leaders of the Chicano civil rights movement first became politically active.
  - B. Though later widespread, they originated in San Francisco area.
  - C. Springing up in a number of communities, they initially had largely apolitical goals centered on art instruction.
  - D. They constituted the nucleus from which the Chicano civil rights movement originated.
  - E. Founded by artists, they provided support for the Chicano civil rights movement.
3. Which of the following best describes the relationship between the first paragraph and the second paragraph of the passage?
  - A. The first focuses on the mural artists as individuals; the second, on their actions as a group.
  - B. The first compares the mural revival with an earlier artistic movement; the second describes the context contemporary to the revival
  - C. The first defines the revival by distinguishing it from an earlier artistic movement; the second addresses the political goals of both the revival and its forerunner
  - D. The first presents an apparently plausible account of the relationship between the revival and its forerunner, the second calls that account into question
  - E. The first is concerned with the artistic aims and ambitions behind the San Francisco murals; the second considers their political significance

### Passage 111

Founder mutations are a class of disease-causing genetic mutations, each derived from its own ancestral "founder" in whom the mutation originated. While most disease-causing mutated are found in humans at a rate of one in a few thousand to one in a few million people, founder mutation can occur at much higher rates. This apparent anomaly is partially explained by the fact that most founder mutations are recessive: only a person with copies of the affected gene from both parents becomes ill. Most people with only one copy of the gene—"carriers"—survive and pass the gene to offspring. Furthermore, the single copy of a founder mutation often confers a survival advantage on carriers. For example, the **hereditary hemochromatosis mutation** protects carriers from iron-deficiency anemia because the mutated gene allows increased efficiency of iron absorption.

For the following question, consider each of the choices separately and select all that apply.

1. The passage indicates which of the following about founder mutations?
  - A. Carriers of founder mutation may receive certain benefits from the mutated gene.
  - B. People who inherit founder mutations from both parents can become ill as a result.
  - C. Founder mutations are less likely than other mutations to be passed to offspring.
2. The author of the passage mentions the “**hereditary hemochromatosis mutation**” primarily in order to illustrate
  - A. the circumstances under which a founder mutation fails to cause a disease.
  - B. how difficult it is to predict the effects of founder mutations on carriers.
  - C. the difference between harmful founder mutation and those that are beneficial.
  - D. how a single copy of a founder mutation can benefit a carrier.
  - E. a challenge to a particular theory about the transmission of founder mutations.

### Passage 112

Although Elizabeth Stuart Phelps’ novel *Doctor Zay* (1882) dominates critical discussion of Phelps’ interest in woman doctors, preceding it were many little-known writings by Phelps. These writings underscored the achievements of already established women doctors, the imperative of medically educating and training women in the face of pernicious resistance, and the medical woman’s symbolic value as an agent of healing in post-Civil War America. An exploration of this largely overlooked early prose demonstrates that Phelps played an instrumental role in legitimizing the American medical woman during a crucial earlier period when the number of women doctors in the United States increased substantially, but the woman doctor remained perhaps the most controversial new presence on the nation’s occupational landscape.

For the following question, consider each of the choices separately and select all that apply.

1. It can be inferred that the author of the passage would be likely to agree with which of the following statements about Phelps’ writing?
  - A. While Phelps’ earlier works did a great deal toward legitimizing the figure of the American woman doctor, her novel *Doctor Zay* did not.
  - B. Critics have tended to underestimate the impact Phelps’ earlier work had in helping to legitimize the figure of the American woman doctor during an important period.
  - C. The substantial increase in the number of woman doctors in post-Civil War America was a more significant factor than was Phelps’ writing in helping to legitimize woman doctors in post-Civil War America.

For the following question, consider each of the choices separately and select all that apply.

2. The passage provides information on which of the following?
  - A. The public response to the emergence of women doctors during Phelps’ lifetime
  - B. How Phelps’ earlier works advanced the cause of American women doctors
  - C. The relative fame of *Doctor Zay* in comparison with Phelps’ other writings

### Passage 113

A bird’s plumage, while contributing to structural integrity and participating in aerial locomotion, completely obscures a bird’s internal activity from human view, greatly impeding our attempts to understand birds as functioning animals. Plumage has even made it difficult to describe bird movement. When describing the movement of mammals, writers turn to well-worn clichés like “grace in motion.” A mammal’s rippling muscles slide smoothly over one another in eye-catching ways. With a mammal, whether a mouse or hippopotamus, we recognize that the underlying body parts are similar to our own and we know these parts will act predictably. Not so with a bird. For centuries, we knew little more about a bird’s movement than that it was a mystery that seemed to be based on the flapping of wings.



For the following question, consider each of the choices separately and select all that apply.

1. The passage mentions which of the following as an effect of bird plumage?
  - A. It contributes to a bird's ability to fly.
  - B. It hides the inner workings of birds.
  - C. It contributes to the structural soundness of birds.
2. The author implies which of the following about the "underlying body parts" of nonhuman mammals?
  - A. They are more similar to humans' underlying body parts than most people assume.
  - B. They are more predictable in their workings than are the underlying body parts of humans.
  - C. Their smooth and graceful actions belie how complicated they actually are.
  - D. They work in much different ways than do the underlying body parts of most birds.
  - E. They are easier to observe and understand than are underlying parts of birds.

#### Passage 114

Early life insurers in the United States found themselves facing the problem of obtaining reliable information, as they needed to rely on applicants themselves to provide truthful, complete answers to a standard set of questions. In an attempt to personalize the relationship between insurers and their individual applicants, firms selected highly respected local citizens to act as their agents. These agents were expected to evaluate the appearance of candidates, unearth evidence of unhealthy family histories or questionable habits, and attest to the respectability of the people writing testimonial letters on an applicant's behalf. In short, the initial purpose of the agency system was not to actively solicit customers, but, rather, to recreate the glass-bowl mentality associated with small towns or **city neighborhoods**.

1. The primary purpose of the passage is to
  - A. explain the original function of life insurance agents
  - B. evaluate the effectiveness of early life insurance agents
  - C. describe how life insurance was first introduced
  - D. illustrate how the life insurance agency system changed over time
  - E. compare the strategies used by life insurance in cities and in small towns
2. The author suggests which of the following about "city neighborhoods?"
  - A. They were places where family histories were difficult to establish
  - B. They were places where unhealthy behaviors had been successfully addressed
  - C. They were locations that were well suited for recruiting insurance agents
  - D. They offered a high degree of transparency about a resident's personal history and character
  - E. They offered potentially fruitful markets for the life insurance industry

#### Passage 115

Despite the **extravagant colors** of the flowers bees visit, until the early 1900s it was commonly thought that bees were entirely color-blind. To test this, zoologist Karl von Frisch set out an array of dishes on cards. The dish on one card, the only blue card among varying grays, contained sugar water. Once bees learned to visit this card and dish combination, he varied its position in the matrix. Next, he replaced all the cards and dishes with a new set of identical materials, only now leaving the blue card's dish empty. The bees nonetheless returned to the blue card. If their vision were monochromatic, they would likely have found at least some of the gray cards indistinguishable from the blue.

1. The author of the passage refers to "extravagant colors" primarily to
  - A. validate a view about bees' color vision that was once commonly accepted
  - B. suggest why it might be surprising that bees were thought to be color-blind
  - C. complicate the debate about bees' color vision
  - D. point out a reason for bees' visual limitations

- E. anticipate an objection to the methodology of the experiment described in the passage
2. It can be inferred from the passage that by setting out new cards when replacing the dish of sugar water with an empty one, von Frisch
- A. was able to record accurately any changes in color that resulted from spills or drops
  - B. could subtly alter the color of the card on which the sugar water was placed in each iteration of the experiment
  - C. introduced new clues relevant to finding the sugar water's location
  - D. succeeded in proving that bees see in only a limited spectrum of color
  - E. was able to rule out the possibility that the bees had somehow marked the blue card in previous trials

### Passage 116

In the 1920s, Gerstmann described a set of problems found in people who have suffered damage to the brain's left parietal lobe, problems that include being unable to understand arithmetic and having difficulty identifying one's fingers. There is still no agreement on whether the symptoms Gerstmann noticed constitute a syndrome, but **the parts of the brain used for storing facts about numbers and for representing the fingers are close to each other**. Mental representations of numbers and of fingers may therefore be functionally connected. A 2005 experiment had people perform some tasks requiring dexterity and others involving matching pairs of numbers, while an area of their parietal lobes—the left angular gyrus—was stimulated by a magnetic field. Facility at both sets of tasks was impaired.

1. The author of the passage would most likely agree that the highlighted statement suggests
- A. a flaw in the experiment conducted in 2005
  - B. a means by which dexterity might compensate for a loss of arithmetic ability
  - C. an explanation for some of Gerstmann's observations
  - D. an anomaly in some of Gerstmann's results
  - E. a reason to doubt damage to the left parietal lobe as a causal factor in certain symptoms
2. The author of the passage describes the "2005 experiment" and its results primarily in order to
- A. establish the proximity between the part of the brain used for storing numerical information and the part used for representing the fingers
  - B. illustrate the implications that Gerstmann's work may have for experimental research
  - C. cast doubt on the idea that damage to the left parietal lobe causes the set of problems that Gerstmann described
  - D. support a hypothesis about a significant association between parts of the brain related to fingers and to numbers
  - E. suggest that the problems Gerstmann noted in relation to numbers and fingers have a different cause than the other problems associated with parietal lobe damage

### Passage 117

The border decoration in medieval manuscripts referred to as pen flourishing reached great artistic heights in the northern Netherlands in the 1400s. The regional variants in form that evolved make flourishing a useful tool for localizing and roughly dating manuscripts. When the first printed books appeared in that region, many copies were still traditionally decorated by hand with such flourishing. Since books' publication can usually be dated with far more accuracy than manuscripts, studying these decorations in early printed books might lead to a more precise dating of the penwork in manuscripts. It is of less help in localizing the flourishing. **Upon completion, copies of printed books were often sold unadorned, to be decorated elsewhere as commissioned by their buyers.**

1. Which of the following best describes the function of the highlighted sentence?
- A. It points out a difficulty involved in studying pen flourishing
  - B. It restates an assertion about the first printed books
  - C. It corrects a misconception regarding the decoration of manuscripts
  - D. It provides support for a claim about the dating of printed books
  - E. It summarized an argument about how to interpret certain type of penwork.

2. According to the passage, pen flourishing in manuscripts can provide historians with valuable information about
- A. who commissioned the manuscript
  - B. the source from which the manuscript was copied
  - C. the value placed on the contents of the manuscript
  - D. where the manuscript was produced
  - E. the collaborative process used to produce the manuscript

### Passage 118

Although social learning (the acquisition of specific behaviors by observing other individuals exhibiting those behaviors) is well documented among fish, few studies have investigated social learning within a developmental context in these taxa. Rather than investigating the development of a particular skill, Chapman, Ward, and Krause investigated the role of group density during development in later foraging success in laboratory-housed guppies. When raised with a small number of conspecifics (members of the same species), guppies were quicker to locate food by following a trained adult guppy than were guppies raised in large groups. This counterintuitive finding is explained by the fact that guppies reared in the high-density condition were less likely to shoal (swim in a group) with others and, therefore, were less likely to learn the benefits of social learning. Instead, fish reared in high-density situations may learn that conspecifics are to be viewed as competitors, rather than as potential sources of adaptive information. This finding suggests that at least for guppies, the early social environment may have an effect on the capacity for social learning, if not on the socially learned behaviors themselves.

1. The primary purpose of the passage is to
- A. note a flaw in a scientific finding
  - B. describe a particular scientific study
  - C. present an interpretation of a finding
  - D. note a difference between two scientific findings
  - E. contrast two conditions in which a particular phenomenon has been observed
2. Regarding research on fish, it can be inferred from the passage that
- A. research studies of the acquisition of important skills by fish have only recently begun to document the role of conspecifics in the learning process
  - B. research on social learning in guppies suggests that guppies differ in important ways from most other fish in the means by which they learn particular skills
  - C. research on social learning in fish has generally focused on the acquisition of skills other than foraging
  - D. research has established that social learning occurs in some fish species without investigating the developmental context in which it occurs.
  - E. research to investigate social learning has been done more extensively on fish than on other aquatic animals.
3. Which of the following can be inferred about the study by Chapman, Ward, and Krause?
- A. It was initially designed to investigate something other than social learning
  - B. It required researchers to observe individual guppies at multiple points in their life spans.
  - C. It pointed to the possibility that population density may have little to do with guppies' social learning
  - D. It required the observation of guppies under conditions that closely mimicked the conditions of guppies in the wild.
  - E. It indicated that guppies gain adaptive information from being reared with a relatively large number of conspecifics.

### Passage 119

In the 2,000-year period immediately before European contact, many native groups of the

Northern Plains of North America specialized in big-game hunting, subsisting primarily on bison. Bison routinely became fat-depleted in the spring, reducing their nutritional value, yet these groups did not supplement their diets with the nutritious, fat-rich fish that were abundantly available. Malainey *et al.* find a possible explanation in late-eighteenth- and early-nineteenth century accounts from three frontiersmen who had adapted to lean-meat diets during extended periods in the plains. Each had an opportunity to consume fish after extended meat dependence and upon eating it, became weak and ill. Malainey notes that prolonged lean meat dependence renders the body incapable of digesting lipids (fats), perhaps explaining native hunters' fish avoidance.

1. The author of the passage mentions accounts from three white frontiersmen primarily in order to
  - A. show how the frontiersmen's dietary choices were influenced by the native groups with whom they came into contact.
  - B. suggest that these frontiersmen had not adapted well to a diet composed primarily of lean meat.
  - C. indicate what kind of diet was habitually followed by native big-game hunters of the Northern Plains.
  - D. identify evidence for a hypothesis regarding native hunters' fish avoidance.
  - E. call into question an assumption about the effects of fish consumption on people who have adapted to a lean-meat diet.
2. Select the sentence that describes the phenomenon that the passage is concerned with finding an explanation for.

### Passage 120

Migratory songbirds breeding in Eurasia's temperate forests depend on a summer flush of insects, particularly caterpillars, to feed themselves and their offspring. In some places, these caterpillars are emerging earlier in responses to rising global temperatures. **In theory, the songbirds could simply push up their departure from their winter quarters to catch the earlier flush of insect prey.** If, however, the birds rely on a fixed cue such as increasing day length to begin flying north, they may be unable to adjust the timing of their migration. Precisely this disruption in the emergence of insects relative to the timing of songbird migration has been identified as the cause of a significant decline in populations of pied flycatchers in the Netherlands.

1. The primary function of the highlighted sentence is to
  - A. refute the legitimacy of an earlier claim.
  - B. hypothesize about a response to a particular situation.
  - C. point out a distinction between two theories.
  - D. present an explanation for a shifting environment.
  - E. illustrate a problem by providing an example.
2. According to the passage, populations of insects preyed upon by pied flycatchers.
  - A. are finding less food as temperatures rise in the Eurasian forests that they inhabit
  - B. are endangered because of global warming
  - C. have recently experienced changes in the timing of their life cycles relative to the calendar
  - D. have recently begun inhabiting cooler climates largely unfrequented by pied flycatchers.
  - E. have increased significantly because of lack of predation.

### Passage 121

Analyzing levels of proportional representation of American Indians in state and local government jobs is important for several reasons. First, the basic idea underlying the theory of representative bureaucracy is that the demographic composition of bureaucracy should mirror the demographic composition of the general public. This is because in addition to its symbolic value, increased access to managerial position may lead to greater responsiveness on the part of policy makers to the policy interests of traditionally disadvantaged groups such as American Indians. Second, the focus on higher level jobs in bureaucracies (as opposed to non-managerial positions) is especially important because managerial positions represent a major source of economic progress for members of traditionally

disadvantaged groups, as these jobs confer good salaries, benefits, status, security, and mobility. Third, it is important to know if there has been growth in the American Indian share of more desirable public sector positions over the last two decades. For instance, Peterson and Duncan argue that the population and power of American Indians have been growing in certain states. **Peterson and Duncan also suggest that this growth may reflect the possibility that American Indian population are becoming more active in nontraditional areas of politics, assimilating into mainstream culture, and securing with greater frequency leadership positions in non-tribal government.**

1. The primary purpose of the passage is to
  - A. Summarize a demographic trend over time
  - B. Present findings on a demographic group
  - C. Analyze the demographic composition of a type of job
  - D. Explain the need for particular social research
  - E. Argue for the implementation of a social policy
2. Which of the following best describes the function of the highlighted sentence in the context of the passage as whole?
  - A. It hypothesizes a phenomenon that might explain a point made in the preceding sentence.
  - B. It provides evidence that undermines that assertion made in the first sentence.
  - C. It offers a projection regarding the development of a trend mentioned earlier in the passage.
  - D. It presents an interpretation of a discrepancy noted earlier in the passage.
  - E. It proposed an implementation of a policy mentioned in the preceding sentence.
3. The passage suggests which of the following regarding “access to managerial positions” for disadvantaged groups?
  - A. This access is only significant when the percentage of disadvantaged group members in managerial positions mirrors the percent of that group in the general public.
  - B. This access is largely the result of policy decisions made in response to interest of those groups.
  - C. This access has meaning apart from any policy benefits it confer on those groups.
  - D. This access often creates increased access to non-managerial position for those groups.
  - E. The extent of this access tends to be similar across different disadvantaged groups.

## Passage 122

The significance of the end of the Cold War is obviously greatest for people in Eastern Europe, who experienced socialism’s failures first hand. In Western Europe, by contrast, the exhaustion of the socialist project is obviously less wrenching. But it does change the political landscape in those societies and effectively removes what once provided both a compelling vision and an occasionally inspiring political rhetoric. It must also change, sooner or later, the intellectual framework within which both scholars and the public operate. In discussing society, Western scholars often act as if trapped in discourses that derive from the past, and they fail to take recent history seriously.

1. According to the passage, the source of the “compelling vision” and “inspiring political rhetoric” was
  - A. the end of the Cold War.
  - B. scholar’s intellectual framework
  - C. discourses that derive from the past
  - D. the socialist project
  - E. changes in the political landscape
2. Which of the following statements about Western European scholarly activity can be inferred from the passage?
  - A. Western scholars will no longer be inspired by political rhetoric
  - B. Western scholars will eventually modify their framework for evaluating the political landscape
  - C. Western scholars no longer hold the Cold War to be a subject worthy of study.
  - D. Western scholars have a poorer understanding of recent history than do people in Eastern Europe.
  - E. Western scholars have not attempted to explain socialism’s failures.

### Passage 123

One way to assess *This is the American Earth*, a collection of photographs selected and arranged by Nancy Newhall, is to apply Newhall's own criteria for judging photographic art. Does this photographic essay achieve results impossible in other media? By contrasting the small with the vast—for example, placing a photo of a rock pool next to one of a spiral galaxy—Newhall exploits the camera's ability to manipulate the size of an object, thereby challenging viewers to question their conventional concepts of size. However, a similar result could be achieved in the medium of painting.

Does the work bear its creator's imprint, and does it draw viewers' interest even after repeated viewings: Newhall's second and third criteria? Indeed, Newhall's work bears her unmistakable imprint in the juxtaposition of the photos and in the rhythmic prose accompanying them, but the individual viewer must decide whether Newhall's work evokes, as it did for this reviewer, new experiences upon subsequent viewings.

1. The author of the passage suggests which of the following about Newhall's third criterion?
  - A. Its satisfaction may depend on the reactions of individual viewers.
  - B. It cannot be applied by the individual viewer on the basis of his or her own experience.
  - C. It is easier to apply than are Newhall's other criteria
  - D. It is the most important criterion to consider when judging photographic art.
  - E. Its application may be more difficult when a photographic essay rather than another form of photographic art is being evaluated.
2. According to the passage, which of the following is a way in which *This is the American Earth* satisfies Newhall's criteria for judging photographic art?
  - A. It takes advantage of one of the camera's unique abilities.
  - B. It leaves viewers with a particularly strong visual impression.
  - C. It contains elements identifying it as a particular person's work.
  - D. It consistently evokes an emotional response from viewers.
  - E. It successfully destroys an overemphasis on humans' concept of size.
3. According to the passage, one of the criteria Newhall uses in making judgments about photographic art is the degree to which the art
  - A. provides viewers with an experience that will encourage subsequent viewings.
  - B. challenges viewers to question their preconceptions
  - C. evokes similar experiences for different viewers in different circumstances
  - D. achieves results that have not been realized by earlier works of photographic art
  - E. produce results that can only be achieved in the medium of photography

### Passage 124

Early in the twentieth century, San Francisco was the main venue for African American jazz musicians on the West Coast of the United States. Musical activity was centered in a district known as the Barbary Coast, where an abundance of nightclubs provided ample work opportunities for local players and drew musicians and other entertainers, many of them African American, from throughout the country. In 1921, as part of its Prohibition-era efforts, the government closed the Barbary Coast. This closure was the decisive event that established Los Angeles as the premier center for jazz on the West Coast. Once the Barbary Coast was shut down, it became far harder for jazz musicians to make a living in San Francisco; thus, many headed south to Los Angeles.

Yet even before that closing, the center of jazz activity had begun to swing southward. With the largest and fastest growing African American urban community in the West, as well as the growing movie industry and an emerging recording industry, Los Angeles was already a magnet for jazz musicians from other parts of the country, especially New Orleans, where jazz players suffered a devastating blow with closing of the Storyville district in 1917.

1. The primary purpose of the passage is to
  - A. point out the parallel effects on jazz music of governmental actions in San Francisco and New Orleans
  - B. offer an alternative to the standard explanation for the decline of San Francisco as a jazz center

- C. argue for the importance of Californian cities in the development of jazz
  - D. present and refute an argument about the reasons for a demographic shift in jazz activity
  - E. outline the factors that contributed to a change in the Geographical locus of jazz activity
2. The passage cites which of the following as a factor helping to explain San Francisco's preeminence as a center for jazz music on the West Coast early in the twentieth century?
- A. The number of job opportunities for musicians in San Francisco's nightclub district
  - B. The efforts by the government to enforce Prohibition in San Francisco
  - C. The existence of venues for many different types of jazz in the San Francisco area
  - D. The relative accessibility of San Francisco, as compared to Los Angeles, for musicians from elsewhere in the country
  - E. The fact that San Francisco at that time had a larger African American population than Los Angeles
3. It can be inferred from the passage that, for African American musicians, which of the following became an advantage of Los Angeles over San Francisco only after 1921?
- A. It became easier to travel to Los Angeles than to San Francisco
  - B. Prohibition had less impact on the availability of work opportunities in Los Angeles
  - C. Nightclubs in Los Angeles offered better pay to jazz musicians than did nightclubs in San Francisco
  - D. The movie industry in Los Angeles became an important source of employment for jazz musicians
  - E. The African American community in Los Angeles began to expand rapidly

### Passage 125

Some attine ants carry vegetation into their nests and add fungal material, thereby creating “gardens” in which fungal food for the ants grow. Because the ants play the behaviorally active role, it seems compelling to say that they cultivate and control the passive fungi. But even if that is true, the symbiotic association has existed for so long that cultivar traits may have evolved in the fungi that benefit the fungi but not necessarily the ants. Furthermore, many microorganisms have developed sophisticated mechanisms to **manipulate** the physiology and behavior of their symbiotic animals. It is not implausible, therefore, that the ants' fungi have evolved chemical and physiological schemes that alter ant behavior to serve the fungus' reproductive interests, possibly even compromising the reproductive interests for the ant hosts.

1. The passage points out which of the following in order to explain the appeal of the notion that some attine ants cultivate and control fungus?
- A. The ants play the behaviorally active roles in the symbiotic relationship.
  - B. The ants purposefully carry vegetation into their nests for their own consumption.
  - C. Fungus is physiologically a passive substance.
  - D. Other organisms are able to manipulate their symbiotic partners.
  - E. The chemical and physiological properties of the fungus are subject to ant influence.
2. In the context in which it appears, the word “manipulate” most nearly means
- A. influence
  - B. oversee
  - C. coerce
  - D. deceive
  - E. outmaneuver

### Passage 126

Paintings of property—anything that was possessed—such as those created by eighteenth-century British painter George Stubbs were condemned by several of Stubbs's contemporaries since “individualized” objects would appeal to our appetite to own and enjoy them, whereas “generalized” objects in other paintings were no longer merely things but abstract ideas. To collect or commission **paintings displaying lofty unconcern with materiality** was considered by these commentators a mark of taste and civic virtue, the ability to subordinate private material interests to the abstract, public interest. It was because the “public” man or woman already owned enough that he or she was presumed

to be free from the urge to own more. Political power and status were thus based on the ownership of property, while at the same time they were legitimated by the claim that the avaricious behavior associated with the acquisition of property was somehow transcended by those who had already acquired it.

1. The primary purpose of the passage is to
  - A. examine the origins of a particular style of painting
  - B. analyze the paintings of a particular school
  - C. point out the weakness that underlies a criticism
  - D. compare two different approaches to the painting of objects
  - E. rebut a criticism of a particular painter's integrity
2. According to the passage, which of the following is true about the painting of property as it is described in the passage?
  - A. It was typified in the work of George Stubbs
  - B. It was usually commissioned by persons who had great political power
  - C. It was regarded in the eighteenth century as a mark of good taste
  - D. It was at its most popular in eighteenth-century Britain
  - E. It was advocated primarily by those who owned a great deal of property
3. With which of the following statements about "paintings displaying lofty unconcern with materiality" would the author be most likely to agree?
  - A. Only the property-rich collector could appreciate paintings of this type
  - B. Such paintings demonstrated the collector's degree of taste and civic virtue
  - C. Such paintings were often collected by people who were quite property-rich
  - D. Collectors of such paintings often displayed them for the public's benefit
  - E. Collectors of such paintings were, as a class, the most avaricious members of their society
4. Which of the following best describes the relationship of the first sentence to the passage as a whole?
  - A. It introduces a topic that is then placed in historical context.
  - B. It introduces two contradictory approaches that are ultimately reconciled.
  - C. It presents an argument that is then strengthened by evidence.
  - D. It argues in favor of a position that is subsequently modified.
  - E. It describes a viewpoint whose inconsistencies are later probed.

#### Passage 127

In Western Europe, the Renaissance's new emphasis on realistic depiction in art posed a problem for painters of that era. The constraints imposed on the painter both by convention and by limitations in materials created a discontinuity between the desire to paint nature faithfully and the ways and means of capturing its colors. Although pigments such as vermilion and ultramarine became gradually less prohibitively expensive and therefore less revered in unadulterated form, the previous era's taboo against mixing pigments remained strong. As a consequence, until the introduction of oil-painting methods made mixing both more feasible for them, Renaissance painters possessed a range of colors scarcely broader than that of medieval artists while facing a new need for accuracy in their use.

1. It can be inferred from the passage that compared to Renaissance painters, medieval artists
  - A. were more likely to adhere to prevailing artistic conventions
  - B. more frequently grew frustrated by the limitations of their materials
  - C. were not as concerned with realistic portrayals of nature
  - D. were less inclined to use unadulterated pigments in their art
  - E. were less constrained by economic considerations in their choice of materials
2. The author suggests that Renaissance attitudes toward mixing pigments
  - A. had little effect on later era's attitudes
  - B. derived in part from non-European artistic traditions
  - C. remained constant throughout the era
  - D. were influenced in part by the cost of ingredients
  - E. led painters to abandon the goal of realistic depiction



## Passage 128

Globally, the combination of reforestation and afforestation activities could reduce atmospheric CO<sub>2</sub> concentration by as much as 30 parts per million (ppm) this century. However, this potential mitigation is limited by many factors. One is the vulnerability of forests to increased disturbances, including those caused by pathogens, droughts, fires, and storms. For example, the mountain pine beetle is projected to convert 374,000 square kilometers (km<sup>2</sup>) of pine forest from a small net carbon sink to a large carbon source in Alberta alone, liberating 1 billion tCO<sub>2</sub>e to the atmosphere.\*\* Climate change is another factor that could limit the potential for carbon sequestration in forests. The mountain pine beetle in Alberta is thriving in part because of warmer minimum temperatures in the winter and warmer and drier summers. A third potential limitation is landowner behavior in private-sector forestry, including **decisions on what species to plant** and how intensely to manage forests. Private forestry competes economically with agriculture, urban development, and other land uses. Landowner decisions will therefore dictate the success of some climate policy efforts.

\* afforestation: planting a forest where one did not previously exist

\*\* tCO<sub>2</sub>e: tons of CO<sub>2</sub> equivalent—a measure for describing how much global warming a given type and amount of greenhouse gas

1. The passage suggests which the following about afforestation?
  - A. It is a factor that could limit the potential of certain CO<sub>2</sub> mitigation strategies
  - B. It can produce forests that are less vulnerable than existing forests to fire and other disturbances
  - C. It will not help reduce atmospheric CO<sub>2</sub> concentrations in the long term
  - D. It could play a role in making discernible changes to the atmosphere
  - E. It benefits certain wild animals at the expense of others
2. The passage suggests which of the following about mountain pine beetles?
  - A. They probably do less damage to forests where summers are cool and moist rather than warm and dry
  - B. They were not found in Alberta before climate change raised minimum winter temperatures there
  - C. They are responsible for liberating more sequestered CO<sub>2</sub> than any other disturbance
  - D. Their presence can influence landowner behavior in private-sector forestry
  - E. Their presence is believed to hamper afforestation efforts regardless of locale
3. According to the passage, which of the following can be influenced by landowner's "decisions on what species to plant"?
  - A. The total number of public forests
  - B. The amount of CO<sub>2</sub> that is sequestered in a forest
  - C. The success of public reforestation and afforestation projects
  - D. The interest of farmers in taking on private forestry projects
  - E. The profitability of key urban development projects
4. The primary purpose of the passage is to
  - A. outline the potential drawbacks of a research program
  - B. consider the possible limitations of a strategy
  - C. advocate for a particular course of action
  - D. describe the cause of a significant problem.
  - E. explain why an issue deserves increased attention.
5. The author mentions "agriculture" primarily in order to
  - A. highlight a significant benefit associated with afforestation.
  - B. identify a factor that may influence landowner decision.
  - C. provide support for a theory about the destructiveness of certain pathogens.
  - D. dismiss a possible objection to certain climate policy efforts.
  - E. outline another way for landowners to contribute to the success of CO<sub>2</sub> mitigation efforts.
6. The passage suggests which of the following about Alberta?
  - A. If certain projections are accurate, damage to its forests will indirectly contribute to increased concentrations of atmospheric CO<sub>2</sub>
  - B. If certain projections are accurate, its forests will be less vulnerable to some pathogens in the future.
  - C. Its forests will play an important role in future climate policy decisions.

- D. Its forests have benefited from the warmer weather associated with climate change.
- E. Its forests are primarily controlled by private-sector forest managers.

### Passage 129

As of late 1980s, neither theorists nor large-scale computer climate models could accurately predict whether cloud systems would help or hurt a warming globe. Some studies suggested that a four percent increase in stratocumulus clouds over the ocean could compensate for a doubling in atmospheric carbon dioxide, preventing a potentially disastrous planetwide temperature increase. On the other hand, an increase in cirrus clouds could increase global warming.

That clouds represented the weakest element in climate models was illustrated by a study of fourteen such models. Comparing climate forecasts for a world with double the current amount of carbon dioxide, researchers found that the models agreed quite well if clouds were not included. But when clouds were incorporated, a wide range of forecasts was produced. With such discrepancies plaguing the models, scientists could not easily predict how quickly the world's climate would change, nor could they tell which regions would face dustier droughts or deadlier monsoons.

1. The author of the passage is primarily concerned with
  - A. confirming a theory
  - B. supporting a statement
  - C. presenting new information
  - D. predicting future discoveries
  - E. comparing points of view
2. It can be inferred that one reason the fourteen models described in the passage failed to agree was that
  - A. they failed to incorporate the most up-to-date information about the effect of clouds on climate
  - B. they were based on faulty information about factors other than clouds that affect climate
  - C. they were based on different assumptions about the overall effects of clouds on climate
  - D. their originators disagreed about the kinds of forecasts the models should provide
  - E. their originators disagreed about the factors other than clouds that should be included in the models
3. The information in the passage suggests that scientists would have to answer which of the following questions in order to predict the effect of clouds on the warming of the globe?
  - A. What kinds of cloud systems will form over the Earth?
  - B. How can cloud systems be encouraged to form over the ocean?
  - C. What are the causes of the projected planetwide temperature increase?
  - D. What proportion of cloud systems are currently composed of cirrus clouds?
  - E. What proportion of the clouds in the atmosphere form over land masses?

### Passage 130

The Icelandic sagas transmit tales of Viking exploration a thousand years ago. In Erik the Red's saga, Gudrid Thorbjarnardottir and her husband, Thorfinn Karlsefni, journey to North America and return to Thorfinn's family estate in Reynisnes, Iceland. In the Saga of the Greenlanders, they return to Iceland, but settle at Glaumbaer, where archaeologists recently found remains of a large longhouse. Aside from this longhouse's grand scale, which ties it to people of Gudrid and Thorfinn's stature, other evidence links it to the North American expedition. Its straight walled design differs from the bowed-wall construction typical of Icelandic longhouses, but strongly resembles Norse structures uncovered in Newfoundland. Moreover, it is unlikely that any other family could have built such a significant longhouse without being mentioned in the sagas.

1. The passage is structured to lead to the conclusion that
  - A. the status of Gudrid and Thorfinn in Iceland was enhanced by their journey to North America.
  - B. the Norse structures uncovered in Newfoundland were probably constructed by Gudrid and Thorfinn or the people who journeyed with them
  - C. the longhouse whose remains were found at Glaumbaer was influenced by structures that the Norse

first encountered in North America

D. archaeological evidence in part supports the account of Gudrid and Thorfinn given in the Saga of the Green landers over that in Erik the Red's saga.

E. there is archaeological corroboration that Gudrid and Thorfinn's journey to North America described in the sagas really did take place.

For the following question, consider each of the choices separately and select all that apply.

2. Regarding the longhouse that archaeologists found in Glaumbaer, it can be inferred from the passage that

A. if it is not the longhouse constructed by Gudrid and Thorfinn on their return from North America, then it is not mentioned in the sagas.

B. it has design features that have been found in the Norse structures uncovered in Newfoundland and not in any other longhouses

C. it is the only dwelling of Gudrid and Thorfinn's time that archaeologists have found at Glaumbaer.

### Passage 131

Ralph Ellison was passionately interested in the visual arts. He immersed himself in Harlem's art scene in the 1930s, even apprenticing with sculptor Richmond Barthe for a time. Yet he was wary of projects aiming to provide a visual rendering of his novel *Invisible Man*. He reluctantly allowed Franklin Library to publish two illustrated versions of the novel but found the results disappointing and repeatedly rejected proposed film versions of the book. Despite his involvement in visual arts, Ellison insisted that only language could capture the complexity of American identity. This complexity consisted of the tension arising from the collision of the United States' written ideals, as outlined in the founding documents, and the historical and contemporary experiences molding the national consciousness.

1. It can be inferred that the author mentions Ellison's apprenticing with Richmond Barthe primarily in order to

A. show that Ellison drew upon some aspects of the visual arts in developing his ideas for *Invisible Man*.

B. show that Ellison's claim for the superiority of language derived from his experience with other art forms.

C. establish that Ellison had experience with an art form that interested many leading figures of the 1930s Harlem arts scene.

D. suggest that in the 1930s the Harlem art scene provided an environment in which artists were likely to work in several media.

E. qualify Ellison's reservations about visual renderings of his work by showing that he was not indifferent to visual art.

2. Which of the following can be inferred from the passage about the "tension"?

A. It partly resulted from social injustices that Ellison worked to alleviate

B. It came to Ellison's attention partly as a result of experience with proposed film versions of *Invisible Man*.

C. Ellison thought that it could not be adequately represented by sculpture.

D. Ellison believed that it arose from contradictions within the United States' founding ideals.

E. Ellison felt that it was an issue that could not adequately be addressed through the depiction of fictional characters.

### Passage 132

Since 1989, the size of Porcupine caribou herd in Alaska has undergone a steady downward trend, declining at a rate of 3 to 4 percent a year. Just why this is happening is not clear. Biologists have not observed marked changes in birthrate or calf survival, nor has there been an increase in the number of predators. Consequently, some biologists have turned their attention to global warming. The rise in spring temperatures may be changing conditions along the migration route in ways that make life

difficult for caribou. For example, prematurely soggy snow might force the animals up onto windswept ridge tops, where they are easier prey for wolves.

1. The primary purpose of the passage is to
  - A. consider possible causes of the decrease in the size of the Porcupine caribou herd since 1989.
  - B. propose a solution to one of the problems faced by the Porcupine caribou herd as a result of global warming
  - C. advocate a hypothesis about the nature of the Porcupine caribou herd prior to 1989.
  - D. discuss how different migration routes affect the Porcupine caribou herd.
  - E. predict changes to the Porcupine caribou herd that will occur as a result of global warming.

Consider each of the choices separately and select all that apply

2. The passage suggests which of the following about the migration of the Porcupine caribou herd in Alaska?
  - A. Prior to 1989, the herd had not been preyed upon by wolves during migration
  - B. Prior to the rise in spring temperatures, the herd typically did not travel along windswept ridge tops while migrating.
  - C. The herd has altered its migration pattern in response to predation.

### Passage 133

Large spiral-shaped galaxies have giant clouds of molecular hydrogen that can readily form stars. The spiral-arm pattern of these galaxies is maintained by density waves, which continually form new stars by compressing the molecular clouds that they pass through. In contrast, dwarf galaxies are dormant for billions of years, then erupt in furious short-lived bursts of star formation before becoming dormant again. These galaxies have little molecular hydrogen. They do have abundant atomic hydrogen — that is, hydrogen atoms floating freely rather than bound into two atom molecules. Because clouds of atomic hydrogen are less dense than clouds of molecular hydrogen, they are less likely to lapse gravitationally and produce stars. Furthermore, because dwarf galaxies lack density waves and other organized gas motions that can cause clouds to collapse, they are mostly quiescent.

1. The paragraph is primarily concerned with
  - A. explaining how spiral-arm patterns are formed in large galaxies.
  - B. explaining why large and dwarf galaxies differ in density
  - C. suggesting that the shape of a galaxy is likely to have as great an effect on the number of stars it forms as does its chemical makeup.
  - D. providing information that might be useful in understanding differences in the pace at which stars are formed in different galaxies.
  - E. relating discoveries made about differences in the gravitational forces that exist among galaxies.

Consider each of the choices separately and select all that apply

2. Which of the following does the passage identify as a factor affecting the rate at which stars are produced by a galaxy?
  - A. The form of hydrogen contained in the galaxy.
  - B. The density of hydrogen clouds contained in the galaxy.
  - C. The age of the galaxy.

### Passage 134

The recently announced discovery of the first known planet orbiting a pulsar (the ultradense, pulsating remnant off the supernova explosion of a star) turned out to be based on faulty data. Had this discovery been confirmed, theorists would have had difficulty accounting for the existence of such a planet. The supernova would certainly have destroyed any preexisting planets. This particular pulsar is relatively young, allowing little time for a new planet to have coalesced, and it rotates relatively slowly, implying that it has not interacted with any nearby star since the supernova.

But newer evidence of a different pulsar with planets is more promising. This is a rapidly spurring “millisecond pulsar” thought to be a much older object that has pulled gaseous material from a stellar neighbor, causing its rotational speed to increase. Leftover, unconsumed gas around such a pulsar could, in theory, coalesce into planets. Or the pulsar’s radiation might have vaporized a companion star, providing new material for planetary formation.

1. The primary purpose of the passage is to
  - A. provide an example of the dangers of a recent discovery based on faulty data.
  - B. illustrate the difficulty of explanation concerning a recent discovery
  - C. assess the credibility of recent findings concerning the as yet unverified existence of a class of objects.
  - D. argue that a certain hypothesis fails to account for a seemingly contradictory phenomenon
  - E. demonstrate how difficult it might be to find out the reality of a phenomenon
2. Which of the following best describe the organization of the passage?
  - A. Two sets of research findings relating to similar phenomenon are mentioned, and the theoretical implication of each are discussed.
  - B. A theoretical explanation of a phenomenon is presented and rejected, and a more attractive alternative is offered
  - C. Two independent and divergent interpretations of a set of observational data are compared and one is favored over the other
  - D. An example of careless scientific research is introduced and contrasted with a more rigorous analysis of the same material.
  - E. The state of knowledge of an unexplainable phenomenon is outlined and an approach to further investigation is recommended.
3. Which of the following can be inferred regarding the pulsar discussed in the first paragraph?
  - A. Theorists initially doubted its existence
  - B. If its existence had been confirmed, astronomers would and have turned their attention to the pulsar discussed in the second paragraph.
  - C. If the supernovas explosions that created it had been more powerful, the resulting radiation would have preceded the subsequent formation of a planet.
  - D. If it had interacted with a nearby star since the supernova explosion, it would rotate faster than it does.
  - E. Astronomers’ interest in it ultimately led to a new theory of planetary formation.

### Passage 135

Many theorists now doubt that heat loss from Earth’s core and radioactive decay are sufficient by themselves to produce all the energy driving the tectonic plates whose movements have helped shaped Earth’s surface. This leaves a loose end in current geological theory. Herbert Shaw argues that because scientists have underestimated the input of substantial amounts of energy from extraterrestrial impactors (asteroids and comets striking Earth), they have difficulty accounting for the difference between the quantity of energy produced from sources intrinsic to Earth and that involved in plate tectonics. Whereas most geologists have treated the addition of energy through the bombardment of Earth’s surface by such impactors as a process separate and independent from the movement of Earth’s tectonic plates, Shaw asserts that these processes are indivisible. Shaw’s revolutionary “open-system” view recognizes a **continuum** between terrestrial and extraterrestrial dynamics, whereas modern plate tectonic theory, like the classical geology developed during the nineteenth century, is founded on the view that Earth’s geological features have changed through gradual, regular processes intrinsic to Earth, without reference to unique catastrophic events. Classical geology borrowed a decisive, if unspoken, premise from Newton—the independence of Earth’s processes from any astronomical context.

1. The author’s primary purpose is to
  - A. identify the influences informing a particular geological theory about the processes that have shaped Earth’s surface
  - B. identify differences between two views of the extraterrestrial impactors and argues that the phenomenon has influenced the development of plate tectonic theory
  - C. argue that an explanation is based on a dubious evidence and propose an alternative explanation

- D. discuss an explanation and place that explanation under theoretical context
- E. suggest that apparent discrepancy poses a serious problem for a particular theory that many have believed
2. The author of the passage mentions the “continuum” in order to
- A. point out a relationship between plate tectonics and the nineteenth-century geology
  - B. explain how a theory of Newton’s could influence geology and plate tectonic theory.
  - C. distinguish between two sources of energy that contributed to the development of Earth’s surface.
  - D. point out a similarity between the surface of impactors and the surface of Earth.
  - E. identify a feature of Shaw’s view that deviates from current scientific theories.
3. The passage suggests which of the following about tectonic theory?
- A. It has led scientists to overlook an important contribution to classical geologists from Newton.
  - B. It has been more successful than was classical geology in accounting for heat loss from.
  - C. It is based on premise about Earth’s processes discerned in Newton’s thought.
  - D. It has correctly explained the effects of extraterrestrial impactors on Earth’s surface.
  - E. It corrects a fundamental flaw in classical geology.
4. It can be inferred from the passage that Shaw would be most likely to which of the following statements about Earth’s geological features?
- A. Processes both intrinsic and extrinsic to Earth have contributed to their formation.
  - B. They were probably formed more recently than proponents of current geophysical theories have acknowledged.
  - C. The energy required to produce them derived primarily from the impact of asteroids and comets striking Earth.
  - D. Their distribution over Earth’s surface provides evidence about the amount of energy contributed by extraterrestrial impactors.
  - E. Their formation is better accounted for by Newton’s theory than current geophysical theories.
5. Which of the following can be inferred from the passage about the “geologists”?
- A. They underestimate the frequency with which extraterrestrial impactors strike Earth.
  - B. They regard energy from extraterrestrial sources as irrelevant to terrestrial dynamics.
  - C. Their views about terrestrial dynamics challenge one of Newton’s fundamental principles.
  - D. Their views about terrestrial dynamics formed the basis for Shaw’s “open-system” view.
  - E. Their views about extraterrestrial dynamics pose a challenge to current geophysical theory.

### Passage 136

Human impacts on the natural environment during the later part of the Holocene (beginning about 4,000 years ago) complicate investigations into environmental change during that period because the signals produced by human-and climate-induced change are sometimes difficult to separate. For example, in the later Holocene, one indicator of increased aridity due to climate change is an increase in pollen from grasses, as forest vegetation gives way to grassland. Such a change in vegetation could alternatively be attributed to human impact in the form of agricultural development. **Examples of such human impact from 4,000 years ago would be small-scale, however, since the broad ecosystem changes brought about by the widespread adoption of agricultural technologies occurred later.**

1. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole?
- A. It provides an example of the kind of problems that often complicate investigations into environmental change.
  - B. It call into question the reliability of the established dates for later Holocene agricultural development.
  - C. It describes the nature of localized agricultural developments during the later Holocene.
  - D. It outlines a hypothesis that draws on evidence discussed earlier in the passage.
  - E. It limits the scope of a particular complication mentioned earlier in the passage.
2. According to the passage, which of the following is true regarding environmental changes 4,000 years ago?
- A. No localized increases in grass pollen were caused by agricultural development.

- B. Increases in grass pollen were at least sometimes a reflection of an increase in aridity.
- C. Wholesale ecosystem changes probably resulted from agricultural development.
- D. Any small-scale changes occurring then would not be detectable now.
- E. Environmental change helped induce the adoption of agricultural technologies.

### Passage 137

Meggers argued that agriculture depends on extracting nutrients from soils into edible crops, so premodern societies in Amazonia could never grow large because underlying soils are impoverished. **In Meggers' view the population size that a culture could reach depended upon the agricultural potential of its environment.** Meggers accepted that fish and turtle resources of the Amazon made possible the long riverside villages the explorer Orellana described in 1542, but she dismissed as exaggerated Carvajal's estimates of tens of thousands of people in those settlements, and she was sure those settlements did not have inland counterparts. Supporting this point, the Omagua, a riverbank people and one of the greatest chiefdoms observed by Carvajal as a member of Orellana's expedition, regarded hinterland forests as unpopulated wilderness.

1. In the context of the passage the highlighted sentence serves to
  - A. explain the broader rationale for a conclusion described in the preceding sentence
  - B. suggest some of the drawbacks of the riverbank location of the villages described in the following sentence
  - C. acknowledge information that appears to undermine a description attributed to Orellana
  - D. introduce a principle that appears to be contradicted by the agricultural development of premodern Amazonia
  - E. give a reason for an upward revision in earlier estimates for premodern Amazonia
2. From the passage it can be inferred that Omagua depended on
  - A. overland transport to communicate between villages
  - B. foraging inland to obtain foodstuffs not available locally
  - C. some form of fertilization to boost agricultural production
  - D. fish and turtles for at least part of their diet
  - E. trade with other peoples for some raw materials

### Passage 138

When selecting a nest, the female of the river blenny (a small fish) appears to be sensitive to both size and orientation. Blennies deposit their eggs preferably in nests under large stones and in nests facing southeast. Southeast-facing nests contain larger egg clutches, a fact that cannot be completely explained by differences in nest stone sizes. Moreover, in a recent study, **current speeds** upstream of the nest and at the nest entrance were similar for nests facing southeast and those facing in other directions. A southeast-facing entrance *per se* thus seems to be the specific nest feature preferred by females, rather than the effect of selective positioning on current at nest entrance. The reasons for this preference are unclear, however.

1. The passage is concerned with which of the following
  - A. Determining the different ways in which current speeds can influence the nesting preferences of female river blennies
  - B. Establishing nest orientation as a determining factor in egg laying among female river blennies
  - C. Questioning the importance of nest size as an influence on egg laying among female river blennies
  - D. Comparing the features of female river blennies that face southeast with those of nests facing in other directions
  - E. Examining how female river blennies determine the relative importance of nest size versus nest orientation
2. The author of the passage considers "current speeds" in order to
  - A. identify a factor that undermines the significance of nest stone size for female river blennies
  - B. indicate one possible advantage of river blenny nests that do not face southeast

- C. eliminate a possible explanation for a nest orientation tendency among female river blennies
- D. indicate why female river blennies are sensitive to both size and orientation of possible nests
- E. suggest a reason why many female blennies prefer southeast-facing nests

### Passage 139

Except in special situations, human beings' battle with mosquitoes will not be won by a simple campaign to eliminate the insects. Social tradition and habits, it seems, do much to ensure continual contact between mosquitoes and people. On the slopes of Mount Kilimanjaro, for example, mosquitoes breed in the leaf axils of a plant called dracaena. Although dracaena is not a food plant for humans, its use as a hedge or boundary marker is deeply rooted in tradition. Here, as in other parts of the world, human behavior ensures contact and conflict between people and mosquitoes.

I am not advocating a policy of live and let live; we already know that living with mosquitoes is very unpleasant. But until we accomplish the difficult task of understanding how our habits often perpetuate—even create—our problems, efforts to resolve our battle with mosquitoes will probably fail.

1. The passage is primarily concerned with
  - A. discussing shortsighted proposals to eliminate problems with mosquitoes.
  - B. outlining ways in which people can alleviate the problems caused by mosquitoes.
  - C. arguing that social traditions can perpetuate people's problems caused with mosquitoes
  - D. discussing various ways in which people come into contact with mosquitoes
  - E. suggesting how the breeding habits of mosquitoes create problems for people.
2. Which of the following best describes the organization of the passage?
  - A. A hypothesis is presented, weighed, and qualified, and then the modified hypothesis is reaffirmed.
  - B. An argument is advanced, then it is refuted, and an alternative is suggested.
  - C. A claim is made, a supporting example is provided, and then a conclusion is offered.
  - D. Opposing views are presented, evaluated, and then reconciled.
  - E. A problem is identified, a solution is proposed, and potential difficulties with the solution are raised.
3. Select the sentence in which a potential misinterpretation of the author's position is addressed.

### Passage 140

Our study revealed that nest-guarding long-tailed skinks (a species of lizard) homed (returned to their nests) more successfully when displaced shorter distances. There are two reasons why homing success rates decreased with increasing displacement distance. One possibility is that females were simply displaced too far to find their way home. **However, this is unlikely given that some individuals managed to find their way home from each distance we used.** The second possibility deals with trade-offs between the risks associated with making a long return trip and the benefits of returning. Animals should expend energy only when the associated costs are low. As reptiles increase the time spent moving, their daily energy expenditure increases dramatically. The energetic costs of returning home and the chances that the eggs will have been preyed upon during the return trip both increase substantially as displacement distance increases. For example, the 130 hours (5.5 days) that female skinks spent returning from a distance of 300 meters is sufficient for an egg-eating snake to locate and prey upon the entire clutch. However, females with larger clutches were more likely to home at distances over 50 meters. For these females, the relative fitness benefits associated with having more eggs successfully hatch may outweigh the energetic costs of returning to a nest site, even if the nest may have already been preyed upon.

1. The primary purpose of the passage is to
  - A. question the validity of research on nest-guarding behavior in long-tailed skinks
  - B. consider explanations for a finding regarding long-tailed skinks
  - C. discuss the importance of homing for long-tailed skinks
  - D. describe the relationship between clutch size and homing success in long-tailed skinks



- E. identify the benefits of a behavior common among long-tailed skinks
2. The claim in the highlighted sentence assumes which of the following about the individuals that managed to find their way home from each distance?
- A. They were less able to detect egg-eating predators than were the other long-tailed skinks studied.
  - B. They were more averse to risk than were the other long-tailed skinks studied
  - C. They expended less energy when homing than did the other long-tailed skinks studied.
  - D. They did not possess better homing skills than did the other long-tailed skinks studied.
  - E. They had significantly smaller clutches than did the other long-tailed skinks studied.
3. The “second possibility” implies which of the following as a possible explanation for the female long-tailed skinks that failed to home from distances over 50 meters?
- A. They had relatively small clutches
  - B. They were unable to find their way home
  - C. They lacked sufficient energy to home successfully
  - D. They had male long-tailed skinks guarding their clutches
  - E. They detected evidence of egg-eating snakes in the vicinity of their nests.

### Passage 141

One way to determine which planets outside the solar system might harbor life is to look for telltale signs in their light. Living organisms create a chemical disequilibrium in their environment, typically indicated by a molecule whose presence can be explained only if some process is continually regenerating it. For example, **Earth’s atmosphere contains oxygen** because photosynthesis produces it faster than it is lost through processes such as the rusting of iron in rocks. However, chemical disequilibrium does not necessarily indicate the presence of life because, as in the case of methane on Mars, the imbalance could arise through nonbiological processes.

1. The passage mentions that “Earth’s atmosphere contains oxygen” primarily in order to
- A. contribute to a discussion of the nature of photosynthesis.
  - B. give an example of a chemical disequilibrium
  - C. identify an element that scientists are looking for on Mars
  - D. illustrate a process that occurs only on Earth
  - E. introduce a contrast between oxygen and methane

Consider each choice separately and select all that apply.

2. According to the passage, which of the following about presence of a chemical disequilibrium is true?
- A. It may indicate the presence of life.
  - B. It may be the product of a nonbiological process.
  - C. It is something that typically is short-lived.

### Passage 142

Although some skeptics points to Arctic places such as the high latitudes of Greenland, where temperatures seem to have fallen, a recent scientific report concludes that in recent decades average temperatures have increased faster in the Arctic than elsewhere. Scientists have long suspected that several factors lead to greater temperature swings at Earth’s Polar Regions than elsewhere. First, most of the Arctic is covered in snow and ice, which are highly reflective; if snow and ice melt, the exposed soil, which absorbs heat, serves to accelerate warming. Second, the polar atmosphere is thin, so little energy is required to warm it. Third, less solar energy is lost in evaporation at the frigid poles than in the tropics.

For the following question, consider each of the choices separately and select all that apply.

1. The passage mentions which of the following as factors that might lead to large temperature swings

in Earth's Polar Regions?

- A. The amount of energy lost due to evaporation at the poles
- B. Soil exposure due to melting snow
- C. The relatively thin atmosphere at the poles

2. In pointing to the apparent temperature change in the high latitudes of Greenland, the skeptics mentioned in the passage intend to raise as a question whether

- A. Greenland is less likely to experience extreme temperature changes than are other areas of the Arctic.
- B. Those more localized temperature drops might indicate an important trend not captured by the upward trend of average Arctic temperatures.
- C. There might be a reversal of the temperature trend in the high latitudes of Greenland.
- D. The factors that cause temperature change in the high latitudes of Greenland are different from those that affect the rest of the Arctic.
- E. Greenland has more ice and snow on the ground than do other areas of the Arctic.

### Passage 143

Early naturalists believed two species of beaver lived in North America: dam beavers and bank beavers. The bank species was thought to resemble the muskrat in behavior, living in burrows or lodges and unable to build dams. In fact, dams are primarily a strategy for dealing with annual variations in water levels. If water levels fall in summer, as they do in most of North America, then beavers' lodge entrances may be exposed. With stabilized water levels, their homes are much safer. Along deep rivers, where bank beavers are found, this problem seldom arises. But these beavers do know how to build dams, and do so if the need arises, as may occur if they are forced to relocate after felling and consuming all nearby trees.

1. The passage provides support for which of the following statements about beaver dams?

- A. One important function of these dams is to protect beavers' homes.
- B. Most are built prior to burrow construction.
- C. They are found mostly along deep rivers.
- D. They are routinely abandoned as nearby forests are depleted.
- E. They mainly protect beavers from rising water levels.

2. The passage implies which of the following about beavers?

- A. Bank beavers are unable to successfully compete with dam beavers when resources become scarce.
- B. Differences in dam-building behavior among beavers do not necessarily imply multiple beaver species.
- C. Building dams eventually causes beavers to deplete nearby resources.
- D. When conditions permit, beavers are more likely to build dams than burrows or lodges.
- E. In beavers, dam-building is an acquired rather than an innate skill.

3. The passage provides support for which of the following statements about beaver dams?

- A. One important function of these dams is to protect beavers' homes.
- B. They are less likely to be found along deep rivers.
- C. They are routinely abandoned before nearby forests are depleted.

4. It can be inferred from the passage that early naturalists considered which of the following criteria when classifying beavers?

- A. The genetic similarity of beavers and muskrats
- B. The propensity of beavers to relocate
- C. The depth of water beavers occupied
- D. Beavers' dam-building capabilities
- E. Beavers' degree of exposure to danger

### Passage 144

Carolina Hospital notes that Cuban-American writers who write primarily in English are dismissed from anthologies and analyses of Cuban exile literature on that account. She argues that since these writers were born in Cuba and consider themselves Cuban writers, they should not be ignored, and maintains that they represent a new phase of Cubanness, one that is expressed in the language **comfortable** to its writers, English. Moreover, another critic notes that the Spanish and English traditions of Cuban-Americans writing have different but equally viable functions. The English branch seeks to create a distinctive culture of Cuban roots in the United States, whereas the Spanish branch wishes to preserve a specifically Cuban culture while seeking affiliation with the canon of Latin American letters.

Consider each of the choices separately and select all that apply

1. Hospital, as presented in the passage, would probably agree with which of the following statements about Cuban-American writing?

- A. For Cuban-American writers, writing in English is not irreconcilable with Cuban identity.
- B. All Cuban-American writers are generally recognized as contributing to Cuban exile literature
- C. It is appropriate for anthologies of Cuban exile literature to include works written both in Spanish and in English.

2. In the context in which it appears, “comfortable” most nearly means

- A. prosperous
- B. sufficient
- C. agreeable
- D. restful
- E. painless

### Passage 145

Exotic insect pests can produce both short-and long-term effects of forest ecosystems. Short-term effects include the disturbances directly associated with the action of the pest, which may cause the defoliation, loss of vigor, or death of trees. Long-term effects are primarily mediated by changes in tree species composition and the consequent alternations of forest structure, productivity, and nutrient uptake. Exotic pests are more efficient than most abiotic disturbances (e.g., fire or wind) at producing long-term changes in species composition. Pests often target specific tree species and, if they become established, they usually remain as permanent components of the ecosystem. Shifts in forest species composition ramify through the ecosystem in many ways because tree species have different, often unique properties.

Consider each of the choices separately and select all that apply

1. The passage mentions which of the following as effects of exotic pests on forest ecosystems?

- A. Decreased vitality in trees
- B. Defoliation of trees
- C. Change in forest structure

2. The author of the passage mentions the “unique properties” of tree species primarily in order to help explain

- A. Why pests tend to target specific tree species
- B. Why pests can have long-term effects on entire ecosystems
- C. How pests contribute to shifts in forest species composition
- D. How pests are able to become established in an ecosystem
- E. How some tree species are able to withstand the effects of pests

## Passage 146

For centuries, oak was the wood of choice for European shipbuilders. However, toward the end of the eighteenth century, as British oak supplies grew scarce, shipbuilders there **turned to** teak and found in it an ideal substitute. Other woods expand and contract at different rates than oak, so repairs to oak ships done with those woods split or leak. Only teak matches oak's expansion coefficient and stays watertight. It is unmatched in its resistance to rot and pests, and its oils even protect nails against corrosion. Moreover, it was one of two important tropical hardwoods (with Central American mahogany) that dried light enough to float downriver—the only way to transport timber in quality from the inland jungles where it grew.

Consider each of the choices separately and select all that apply

1. It can be inferred from the passage that an advantage of teak over mahogany is that teak is
  - A. More compatible with the materials in existing ships
  - B. Less susceptible to rot and pests
  - C. Available in great quantities in inland jungles
2. In the context in which it appears, “turned to” most nearly means
  - A. Rotated
  - B. Resorted to
  - C. Deflected from
  - D. Reverted to
  - E. Revolved around

## Passage 147

Although many hypotheses have been proposed to explain why some plant communities are more susceptible than others to invasion by nonnative species, results from field studies have been inconsistent and no general theory of invasibility has yet emerged. However, a theory based on fluctuating resource availability could integrate most existing hypotheses and successfully resolve many of the apparently conflicting and ambiguous results of previous studies. The suggested theory is that a plant community becomes more susceptible to invasion whenever there is an increase in the amount of unused resources.

The diversity in the range of resource-release mechanisms could partly explain the absence of consistent ecological correlates of invasibility. In particular, the theory predicts that there will be no necessary relationship between the species diversity of a plant community and its susceptibility to invasion, since near-complete exploitation can each occur in both species-rich and species-poor communities. Though Lonsdale found a positive association between species richness and invasion, this may arise from the tendency of diverse plant communities to be nutrient poor and therefore more responsive to the effects of human-caused influxes of nutrients.

1. The passage is primarily concerned with
  - A. Assessing the empirical success of a theory
  - B. Explaining why no consistent theoretical account of a phenomenon has been possible
  - C. Advocating a potential solution to a theoretical impasse
  - D. Deducing testable predictions from a proposed theory
  - E. Describing the difficulties involved in explaining certain empirical results
2. It can be inferred that the author would most likely agree with which of the following assessments of the results from field studies
  - A. Many of the results contradicted predictions of susceptibility to invasion that are based on the availability of resources unused by the community.
  - B. If fluctuating resource availability were taken into account, many of the apparent inconsistencies among the results could be explained.
  - C. The apparent inconsistencies and ambiguities in the results are caused by trying to make them fit an inadequate general theory of invasibility.
  - D. No general theory of invasibility has emerged because none of the studies has been able to assess

the degree of an invasion accurately.

E. The results tend to show a degree of susceptibility to invasion that is lower than would be expected given the prevalence in the wild of nonnative species.

3. According to the author, the theory based on fluctuating resource availability might resolve “apparently conflicting and ambiguous results” because

A. It explains how a particular circumstance can produce disparate effects

B. It does not assume that all of the results are instances of the phenomenon that the theory is intended to explain

C. It predicts that seemingly minor variations in research methodology can have a dramatic effect on results

D. Its account is based on a statistical tendency rather than on the supposition that the results arise from a causal connection

E. It indicates why a similar outcome may be preceded by very different circumstances on different occasions

### Passage 148

Astronomers have had difficulty accounting for certain planets discovered outside our solar system. They are called hot Jupiters because each is similar in mass to Jupiter, the largest solar-system planet, but orbits its parent star at a fraction of the distance at which **Earth**, let alone Jupiter, orbits the Sun. In the standard, solar-system-based theory of planetary formation, such a massive planet could not form so close to a star. So most **attempts** to explain a hot Jupiter’s existence envision it forming farther away, then migrating inward. According to one hypothesis, the planet’s gravitational field tugs on the proto-planetary disk of dust and gas from which it formed. The disk exerts its own gravitational tug, and this interplay of forces robs the planet of momentum in its orbital path, forcing it to spiral in toward the star. According to another hypothesis, the planet’s gravitational field is so strong that it creates a groove in the disk, partitioning it into inner and outer regions; the resulting gravitational interactions between the planet and these regions cause the planet to lose orbital momentum and spiral inward. Another question remains: what prevents the planet from continuing its spiral until it collides with the star?

1. The author of the passage mentions “Earth” primarily in order to

A. stress the massive size of a hot Jupiter

B. emphasize the proximity of a hot Jupiter to its parent star

C. imply that hot Jupiters are unlikely to harbor extraterrestrial life

D. point out differences between Earth and Jupiter with regard to their orbital distance from the Sun

E. illustrate how hot Jupiters might fit into the standard theory of planetary formation

2. Which of the following elements is part of one but not both of the hypotheses discussed in the passage?

A. An interplay of gravitational forces

B. A loss of orbital momentum

C. A protoplanetary disk composed of dust and gas

D. A protoplanetary disk divided into two regions

E. The movement direction of hot Jupiters

3. It can be inferred from the passage that the “attempts” share which of the following goals?

A. to explain how a Jupiter-sized planet could form so close to its parent star

B. to explain what prevents a hot Jupiter from colliding with its parent star

C. to determine whether a hot Jupiter is formed from a protoplanetary disk of dust and gas

D. to determine whether a hot Jupiter’s gravitational field is strong enough to create a groove in its protoplanetary disk

E. to account for hot Jupiters in a way that is not inconsistent with the standard theory of planetary formation

### Passage 149

Current studies of early modern absolutism—rule by one person with absolute authority—emphasize continual negotiations between ruler and ruled. The same rulers who often staged spectacular displays of their rule might spend much of their time arranging deals and forestalling opposition, negotiating constantly with nobles and others for acceptance of their rule. **The effective ruler was not the one who brusquely subdued opponents, but the one who both avoided antagonizing those opponents who could not be easily subdued and who gradually lured most others into his court with political appointments.** The rule of Cosimo I de' Medici, a sixteenth-century duke of Tuscany, exemplifies this **strategy**. Beginning from a weak position, Cosimo became one of Europe's most powerful rulers, founding a dynasty that lasted well beyond his lifetime.

1. Which of the following actions by a ruler would best serve as an example of the “strategy” referred to in the passage?
  - A. Marrying the son or daughter of the ruler of a neighboring territory despite parental opposition.
  - B. Putting on a spectacular parade to celebrate a recent military victory.
  - C. Installing one's heirs in positions of power before they reach adulthood.
  - D. Seizing the properties of the local nobility in order to increase personal holdings.
  - E. Awarding a potential competitor a coveted position in the royal palace in exchange for allegiance.
2. Which of the following best describe the purpose of the underlined sentence?
  - A. It rejects a view of early modern absolutism represented in many current studies.
  - B. It points to a truth about early modern absolutist ruler that is often overlooked by contemporary scholars.
  - C. It formulates a method of governing that current scholars see as typical of early modern absolutist rulers.
  - D. It challenges a view of early modern absolutist rulers for which the author believes there is insufficient evidence.
  - E. It raises questions about a strategy used by an early modern ruler whom the author regards as having been particularly successful.

### Passage 150

Archaeologists studying Bonito phase (ca. A.D. 900-1140) Native American ceramics from Chaco Canyon, New Mexico, observed that many pots had been altered after firing to revise their decorative designs—usually, intricate geometric patterns painted in black on white slipped surfaces. In some cases, a new design was imposed over an earlier one; less often, the original design was simply covered with white slip. Crown and Wills doubt that the alterations were made to correct design errors. Many Chaco pots with design errors were left unaltered. Furthermore, when errors were corrected, revisions were made prior to firing—either by painting directly over the error or by scraping off designs and applying new slip and paint, which is a less time-consuming method than repainting and refiring flawed pots.

1. The author of the passage mentions Crown and Wills primarily in order to
  - A. Distinguish among different factors that might have caused Chaco potters to alter their pots' decorative designs.
  - B. Introduce new evidence related to the question of why Chaco potters altered their pots' decorative

designs.

- C. Show how one potential explanation for the alteration of Chaco pots has been discounted.
- D. Present a hypothesis about why Chaco pots were altered to revise their decorative designs.
- E. Explain how archaeologists discerned the method by which Chaco pots were originally decorated.

2. According to the passage, which of the following is true of Bonito phase Chaco pots?

- A. Relatively few of them have original designs concealed beneath white surfaces.
- B. Relatively few of them were altered after firing.
- C. Many of their alterations increased the intricacy of their painted designs.
- D. Many of them have some flaw in their shape or structure.
- E. Many of them were altered more than once.

### Passage 151

The discovery of subsurface life on Earth, surviving independently from surface life, refuted the belief that biological processes require not only liquid water but sunlight as well, thus greatly enhancing the possibility of life beyond Earth. **Take Jupiter's moon Europa.** Space probes show a body covered with a thick layer of ice. As Europa orbits its planet, however, it flexes due to the gravitational tug-of-war between it, its sister moons, and Jupiter. Through friction, this flexing produces heat in the moon's interior capable of melting ice. Indeed, observations suggest liquid water exists beneath Europa's icy crust. Photosynthetic life is impossible there because sunlight is completely absent, but life such as the microbes that flourish deep within earth may still be possible.

For the following question, consider each of the choices separately and select all that apply.

- 1. Life on Europa in the form suggested in the passage would be dependent on
  - A. The protection Europa's icy crust gives against the harmful components of sunlight
  - B. The existence of water on Europa
  - C. The motion of Europa around Jupiter
- 2. The highlighted sentence "take Jupiter's moon Europa" serves to introduce
  - A. An instance that allows a hypothesis to be tested
  - B. Speculation grounded in empirical discovery
  - C. A deduction from a newly advanced hypothesis
  - D. A large-scale effect of an apparently insignificant contingency
  - E. The derivation of a contradiction to refute a claim

### Passage 152

Like Germany, but unlike other European nations, Norway industrialized rather late in the nineteenth century. Compared to Germany, however, Norway has a comparatively recent history of industrially based social classes and a much longer history of rather egalitarian class relations. The origin of Norwegian egalitarianism predates industrialism and the rise of the labor movement. The preindustrial economy was based largely on a small independent peasantry who combined agriculture with fishing (in the north) or with forestry (in the south). Because Norway was under foreign rule for five centuries until 1905, and because the topography is unfavorable for large estates, a strong aristocracy and landowner did not emerge in most of Norway. There were some exceptions to this pattern, especially in the southern regions where a landowner class did exist. Norway's early social and economic history engendered egalitarianism, although, as has been pointed out by several observers, it was an "equality of poverty".

1. The passage is primarily concerned with discussing the
  - A. link between poverty and equality in the preindustrial state
  - B. characteristics of industrial society shared by Norway and Germany
  - C. effects of industrialization on social and economic relations in Norway
  - D. roots of social equality in Norway
  - E. emergence of social classes in Norway and Germany
  
2. According to the passage, northern and southern Norway differed in which of the following ways in the nineteenth century?
  - A. A landowning class was more likely to be found in southern Norway than in northern Norway
  - B. Southern Norwegian peasants relied primarily on fishing for subsistence, while northern Norwegians relied on forestry
  - C. Agriculture was a significant activity in southern Norway but not in northern Norway
  - D. Southern Norway industrialized earlier than did northern Norway
  - E. Foreign rule affected southern Norway more profoundly than it did northern Norway
  
3. The passage suggests which of the following about egalitarianism in Norway?
  - A. It was a source of social stability that helped Norway survive five centuries of foreign rule
  - B. It manifested itself in the same way after industrialization as it had prior to industrialization
  - C. It did not necessarily provide a high standard of living for most Norwegians
  - D. It produced a Norwegian industrialization that differed qualitatively from industrialization in other European countries in that the labor movement was less radical in Norway
  - E. It was more pervasive in southern than in northern Norway

### Passage 153



In the mid-seventeenth century, some Native Americans in colonial New England started to keep and manage livestock for the first time, doing so according to their own cultural priorities and interests. Several factors influenced their decision to keep animals, including threats to their land base and to the productivity of their hunting. It might appear that animal husbandry as practiced by Europeans would have posed an insurmountable sociocultural challenge for Indians. **Scholars studying the issue have argued that livestock would have compromised the mobility needed for winter hunting, destroyed crops, competed with wild game for resources, and violated prevailing conceptions of property and of human-animal interconnectedness.** Such obstacles were indeed difficult, but creative ways to overcome them were found.

1. Which of the following best describes the primary function of the highlighted sentence?
- A. It identifies an atypical scholarly viewpoint regarding Native Americans and animal husbandry
  - B. It helps to explain why animal husbandry was not adopted by more Native Americans in colonial New England
  - C. It points out some of the typical misconception that scholars have regarding Native Americans in colonial New England.
  - D. It identifies factors that ultimately transformed the Native American way of life
  - E. It identifies certain challenges that practicing animal husbandry posed for Native Americans in colonial New England.

For the following question, consider each of the choices separately and select all that apply.

2. It can be inferred that the author would agree with which of the following statements about animal husbandry by Native Americans in colonial New England?
- A. Its adoption required some cultural adjustment by Native American societies.
  - B. Its influence eventually led to changes in the husbandry practices used by Europeans in the region.
  - C. It may have allowed those who adopted it to compensate, in whole or in part, for reduced hunting yields.

### Passage 154

The waters east of Cape Hanglip were once the center of a lucrative wild-caught abalone fishery, but illegal fishing in the mid-1990 escalated to such levels that the recreational fishery was closed in 2003. When abalones did not rebound, commercial fishing was also banned. Continue declines in abalone were attributed to poaching, but an invasion by rock lobsters during the early 1990s probably intensified the trend. Rock lobsters prey on sea urchins, and increased rock lobster densities coincided with significant decreases in sea urchins. In that area, urchins feed largely by trapping drift kelp, and in doing so provide juvenile abalone with both protective shelter and nourishment. Without urchins' presence, juvenile abalones are less likely to survive to adulthood.

1. According to the passage, since the early 1990s, sea urchins in the waters east of Cape Hanglip

have

- A. significantly changed their feed habits
- B. suffered increased predation from a certain species
- C. experienced increased competition for kelp, their main source of nourishment
- D. seen a sharp decline in the availability of kelp, due to environmental changes
- E. rebounded as commercial fishing in the region has declined

2. According to the passage, which of the following is a true statement about the feeding behaviors of sea urchins?

- A. They change according to the type of food available in an area.
- B. They are responsible for the decline of abalones in some regions.
- C. They have a significant impact on the young of another species.
- D. They make sea urchins more vulnerable to potential predators.
- E. They result in a marked decline in kelp in certain regions.

3. Which of the following statements about the Closing of the “recreational fishery” is supported by the passage?

- A. It was a measure taken in response to the invasion of the area by rock lobsters.
- B. It had unintended effects on the region’s population of sea urchins.
- C. It was enacted after the banning of commercial fishing in the region.
- D. It did not stem the decline of abalone in the region.
- E. It had a short-lived effect on the area’s abalone population.

4. It can be inferred from the passage that the decline of abalones in the waters east of Cape Hangklip was probably due in part to

- A. an increase in the area’s population of rock lobsters
- B. illegal harvesting of adult abalones in the area
- C. a change in the feeding behavior of sea urchin

### Passage 155

Throughout much of the Tertiary period (most of the past 65 million years), the Arctic supported continuous forests. Only toward the end of that period does the fossil evidence show that certain present-day Arctic plants were established and widely distributed throughout the Arctic. Many Arctic plants are thought to have originated in the high mountain ranges of central Asia and North America, to have spread northward to the Arctic as global temperatures fell in the late Tertiary, and to have achieved a circumpolar distribution by the end of the Tertiary (about 2 million years ago). However, fossil evidence to support these proposals is either lacking or fragmentary. Consequently, the routes by which these plants expanded their ranges during their colonization of the Arctic remains unknown.

For the following question, consider each of the choices separately and select all that apply.

1. Which of the following statements about Arctic plants is supported by the passage?
  - A. The decline in global temperatures in the late Tertiary prevented many high-mountain plants from becoming established in the Arctic.
  - B. There is not enough evidence to firmly establish the historic migration routes of present-day Arctic plants.
  - C. Present-day Arctic plants are less likely to leave fossil remains than are plants outside the Arctic.
2. In the context in which it appears, “distributed” most nearly means
  - A. developed
  - B. isolated
  - C. dispersed
  - D. divided
  - E. disconnected

### Passage 156

The editors of the essay collection *Romantic biography* tell us repeatedly that biography is an invention of the Romantic period in British literature (late eighteenth and early nineteenth centuries), yet we are never shown that process of invention motion. Hazlitt, the most prominent example of the Romantic biographer, is almost invisible. The Romantic period was not just the period in which biography was invented—or, rather, the period in which some of its informing principles were invented, since biography could just as easily be said to have originated in the **scandalous memoirs** that formed part of the pre-Romantic culture of the novel. It was also the period in which biography, through its sheer ubiquity, became an object of major ideological significance within British culture.

1. The passage mentions the “scandalous memoirs” that were written prior to the Romantic period primarily in order to
  - A. indicate an alternative account of the origins of biography
  - B. compare these memoirs to Romantic biography
  - C. explain how biography became ubiquitous in British culture
  - D. question the ideological significance accorded to biography
  - E. suggest that biographies were not as popular as memoirs
2. According to the passage, biography attained great significance within British culture during the Romantic period because biographies
  - A. were associated with scandal
  - B. were easy to read and comprehend
  - C. were so widespread in Britain at the time
  - D. challenged conventional British ideologies
  - E. contributed to the development of the novel

### Passage 157

In North America, crows have historically antagonized humans by ravaging corn crops, but advancing urbanization has recently made humans more tolerant of crows, and crows’ wariness has accordingly diminished. The future demeanor of the American crow (*Corvus brachyrhynchos*) is suggested by intercontinental analogy to India’s house crow (*Corvus splendens*), which has lived for

many centuries in an essentially unarmed, animal-friendly, and densely populated culture. Its audacity extends to stealing food from street vendors and entering dwellings to remove food from the table. The extreme watchfulness of the American crow has grown out of a long history of persecution. As people treat crows with insouciance rather than aggression, less wariness results in reproductive success, and another kind of corvine conduct asserts itself.

1. Which of the following generalizations most directly underlies the author's central point?
  - A. Two different species of the same genus of birds may differ greatly in their characteristic behavior for reasons that have nothing to do with the environment in which they live.
  - B. Degrees of wariness tend to differ significantly among individuals of the same animal species as well as between different species within the same genus.
  - C. As human populations become more urbanized, humans become less attuned to the behavior of animals in their environment in ways that can negatively affect animals' reproductive success.
  - D. A given behavioral trait can have either a positive or negative effect on an animal's reproductive success depending on the behavior of humans in the animal's environment.
  - E. Human attitudes toward a given animal species tend to be somewhat arbitrary and are subject to change over time.
2. The author implies which of the following about the "insouciance" mentioned in the passage?
  - A. It reflects an advance in our understanding of crow's behavior.
  - B. It has increased in one region of the world as urbanization has grown.
  - C. It is likely to increase in a particular region as farming in that region increases.
  - D. It reflects the influence of one culture's attitudes towards animals on those of another culture.
  - E. It can have a positive influence on a given species' reproductive success in some contexts but a negative effect in others.

#### Passage 158

Water shrews—small mammals that live in wetlands—are skilled at finding prey underwater. With peak feeding periods occurring at night, when vision is of limited use, water shrews, researchers have found, surprisingly locate prey by smell. Logically that appears impossible: it is air that transports odorants to the olfactory receptors in the nasal cavity, and there is no air underwater for a mammal to inhale. But water shrews exhale air bubbles while foraging underwater, often directly onto objects they are investigating. They then inhale the same bubbles to collect odorants. Researchers had long overlooked this ability because the sniffing occurs so quickly, it requires slow-motion video to observe, and not many shrews have been filmed underwater with high-speed cameras.

1. Which of the following statements about the "researchers" mentioned in the second sentence can be inferred from the passage?
  - A. They failed to perform adequate experiments to validate their hypotheses.
  - B. They noticed an unusual behavior that led to a new explanation.
  - C. They did not fully appreciate the advantages of using high-speed cameras.
  - D. They overlooked new evidence because it contradicted widely held beliefs.
  - E. They had not considered how mammals breathe underwater.
2. The passage implies which of the following about the timing of water shrews' peak feeding periods?
  - A. It led researchers to rule out vision as water shrews' primary means of finding prey.
  - B. It gives water shrews a competitive advantage over predators that are most active during the day.
  - C. It discouraged researchers from filming water shrew underwater.
  - D. It allows water shrew to approach prey during relatively unguarded moments.
  - E. It provides the possible conditions for the transmission of odorants.

#### Passage 159

Widespread climate change challenges traditional notions that preserving specific chunks of land is an adequate way to protect endangered species. Commitment to particular places has taken

conservation a long way, but it works only when the climate is relatively stable. When climate change rather than degraded habitat threatens a species' survival in a particular location, moving the species to new locales might become one way of preserving it. Some ecologists argue that such assisted migration is simply a way to mimic the natural process of dispersal: its adherents intend to transport species from places that have become uninhabitable through places that humans have made impassable. Although it has its risks, assisted migration may be a necessary step in the evolution of conservation.

1. The author of the passage implies that some endangered species are unlikely to migrate naturally to habitats better suited to their survival because
  - A. climate change is making such habitats disappear
  - B. few if any viable routes to such habitats exist
  - C. the pace of natural migration is typically slower than the current pace of climate change
  - D. their numbers are already below the thresholds necessary for the typically random processes of natural dispersal
  - E. their dependency on their current habitats is too strong
2. The passage suggests that, in order to adapt to changing conditions, conservationists should
  - A. reformulate their goals regarding the preservation of species
  - B. turn their attention to reversing climate change
  - C. end the practice of labeling certain species as endangered
  - D. reconsider the measures they use to protect endangered species
  - E. rely on natural processes of dispersal and change

### Passage 160

When studying shrimp feeding from hydrothermal vents at the bottom of the ocean, biologists were surprised that the shrimps' reproductive cycles followed seasonal patterns. Far beyond the reach of sunlight, and with food abundant around the vents all year round, why should such animals reproduce seasonally? The answer might involve their offspring, which in their larval form drift in the currents to colonize new vents. The larvae must feed during their trip, and their springtime release coincides with a peak in algae raining down from surface waters. **So far, researchers have found no evidence of seasonal breeding among vent-dwelling species that provide their offspring with yolk to sustain them or among vent-dwelling species found in areas of the ocean with no seasonal algae blooms.**

1. Which of the following best describes the function of the highlighted sentence?
  - A. It casts doubt on the accuracy of earlier observations of seasonal breeding among shrimp species living near hydrothermal vents.
  - B. It undermines the explanation proposed for seasonal breeding among some shrimp species living near hydrothermal vents.
  - C. It suggests that alternative theories are needed to explain seasonal breeding among shrimp species living near hydrothermal vents.
  - D. It describes the survival benefits to shrimp of mating in parts of the ocean where algae blooms rain down abundantly.
  - E. It supports the explanation proffered for the seasonal breeding observed among some shrimp species living near hydrothermal vents.

### Passage 161

There is mounting evidence that the frequency and magnitude of landsliding is changing in many parts of the world in response to climate change. This is not surprising, given that precipitation is one of the two external triggering mechanisms—the other being seismic activity—involved in the formation of landslides. **Evidence from the past** clearly indicates that cycles of elevated landslide activity have been followed by cycles of low activity, and that these are correlated with climate fluctuations over a variety of timescales.

What sets current changes in landslide activity apart is the likely influence of anthropogenic (i.e., human-caused) factors, either acting alone or in concert with climate, which can further modify the process of landsliding and the nature of ecosystem responses. Among these factors, deforestation and land-use change have the potential to influence the frequency and magnitude of landsliding because of their direct effects on vegetation attributes that influence slope stability. The extent and conditions under which mountain ecosystems are resilient to these changes—that is, the amount of disturbance they can absorb before changing into states with different structure and function—are not known. Addressing this issue is crucial for the long-term conservation of mountainscapes.

1. The author of the passage cites “evidence from the past” in order to
  - A. Support a partial explanation
  - B. Concede a potential objection
  - C. Dismiss an apparent counterexample
  - D. Highlight a scientific consensus
  - E. Account for a historical anomaly
2. The passage makes which of the following claims?
  - A. A rise in precipitation resulting from human factors has increased the frequency and magnitude of landsliding.
  - B. Human factors have led to greater changes in landsliding activity than have cyclical climate fluctuations.
  - C. Decreases in landsliding activity have historically been accompanied by changes in climate.
  - D. Slope stability is more influenced by seismic activity than it is by human factors.
  - E. Changes in land-use patterns in mountain ecosystems are generally correlated with changes in climate.

For the following question, consider each of the choices separately and select all that apply.

3. The author of the passage suggests which of the following about the role of human factors in landsliding activity?
  - A. Human factors can intensify or alter the effects of climate change on landsliding activity.
  - B. It is likely that human factors affect landsliding activity more than climate change does.
  - C. Until recently, human factors did not have much impact on landsliding activity.

## Passage 162

There have been numerous well-documented extinctions of indigenous species caused by the introduction of nonindigenous predators and pathogens. However, surprisingly few extinctions of indigenous species can be attributed to competition from introduced species. For example, during the past 400 years, 4,000 plant species have been introduced into North America, and these nonindigenous plants currently account for nearly 20 percent of North America’s plant species. Yet no evidence exists that any indigenous North American plant species became extinct as a result of competition from introduced plant species. The scarcity of documented extinctions caused by competition from new species could mean that such extinctions take longer to occur than scientists initially believed or, alternatively, that extinctions are rarely caused by competition from nonindigenous species.

1. The passage is concerned primarily with
  - A. Pointing out that a particular type of species extinction is rarely known to occur
  - B. Proposing a possible explanation for conflicting data about a particular type of species extinction
  - C. Resolving a debate about the frequency of a particular type of species extinction
  - D. Comparing two theories regarding possible causes of a particular type of species extinction
  - E. Refuting a proposed explanation for the increasingly rare occurrence of a particular type of species extinction
2. The author introduces statistics about North America’s nonindigenous plant species primarily in order to
  - A. undermine a proposed explanation for the absence of any evidence for the occurrence of a particular phenomenon.
  - B. contrast the effect of introduced plant species in North America with the effect that introduced animal species have had.

- C. suggest that North America's indigenous plants are a domain in which there has been ample scope for a particular effect to have occurred.
- D. emphasize how much the ecology of North America has been affected over the past 400 years by the introduction of nonindigenous species
- E. substantiate a claim about the overall effect that the introduction of nonindigenous species tends to have on indigenous populations.

### Passage 163

The physicist Wallace Sabine pioneered the scientific study of architectural acoustics when he was asked in 1895 to fix a university lecture hall in which the echo of a speaker's words rendered them unintelligible. He found that the length of time it takes a sound's echo to decay is determined by the absorption of the sound's original energy by surrounding materials. By hanging panels of sound-absorbing felt on the walls, Sabine reduced the echo enough to make the hall usable. And the data he compiled yielded a mathematical formula for the relationship between a room's echo duration, its quantity and quality of sound-absorbing materials, and its spatial volume.

1. Which of the following can be inferred about the "university lecture hall" mentioned in the passage?
  - A. It was not originally designed to be used for lectures.
  - B. It was more suitable for listening to music than for listening to the spoken word.
  - C. Its walls had surfaces made of material with very poor sound-absorbing properties.
  - D. Its poor acoustics resulted from its being designed to accommodate a large audience.
  - E. It was constructed at a time when sound-absorbing building materials were not readily available.
2. The passage suggests that Sabine's work made which of the following possible for the first time?
  - A. To make a room soundproof.
  - B. To build an auditorium out of sound-absorbing materials.
  - C. To construct an enclosed space in which sound would not echo.
  - D. To design a building to meet predetermined specifications with regard to echo duration.
  - E. To render any large room usable for public lectures and performances.

### Passage 164

Soil communities are dependent on plants for organic matter. Plants provide organic matter for soil communities through the decomposition of leaf litter, by oozing nutrients from roots, or through other methods of deposition of organic compounds into the soil environment. As a result of these diverse methods by which plants supply resources, unique soil communities form under different plant species and under plant communities that differ in composition. If a nonnative plant species invades an aboveground community of flora and fauna, it can alter links between the native aboveground community and the belowground soil community. For example, an invading nonnative plant could alter the quantity of leaf litter production, which would alter nutrient contributions to the soil.

For the following question, consider each of the choices separately and select all that apply.

1. According to the passage, plants supply resources to soil communities by which of the following methods?
  - A. Some plants supply resources to soil communities by promoting diversity of aboveground flora and fauna.
  - B. Some plants supply resources to soil communities by oozing nutrients from their roots.
  - C. Some plants supply resources to soil communities by depositing leaf litter.

For the following question, consider each of the choices separately and select all that apply.

2. Which of the following statements about the connection between aboveground plants and belowground soil communities can be inferred from the passage?

- A. Because of the nature of the link between above-and belowground communities, many soil communities are deficient in nutrients.
- B. The extent to which soil communities are dependent on aboveground plants is extremely variable from one soil community to another.
- C. Because different plants supply resources to soil communities in different ways, distinctive soil communities form under different plant communities.

### Passage 165

Historically, more cold-adapted antelope species originating in Eurasia have migrated into Africa, where the climate is generally warmer, than have warm-adapted African species into Eurasia. A likely explanation for this involves the fact that intercontinental migrations require both a land bridge connecting the two continents and suitable habitat both on and across that land bridge. During periods of climatic cooling, such as the various ice ages, the land bridge is open for a long time (because sea level remains low) and is usable by cold-adapted species because cool habitats then extend across it. Thus during cooling most migrants would be expected to travel toward Africa, which is near the equator, since this is the direction dictated by habitat changes on a cooling Earth. In contrast, when the Earth is warm, the land bridge is reduced or gone because sea level is relatively high then. Only during the short lag between onset of global temperature change and sea level response can warm-adapted species migrate from the equator toward higher latitudes.

1. According to the passage, which of the following is true of a Eurasia-Africa land bridge during ice ages?
  - A. It offers suitable habitats for cold-adapted species of antelope.
  - B. It encourages migration from Africa to Eurasia of cold-adapted species of antelope.
  - C. It allows the survival of warm-adapted species of antelope that might otherwise become extinct.
  - D. It is more likely to exist early in an ice age than later in an ice age.
  - E. The habitats it offers change more quickly than do those offered by land bridges during other periods.
2. The author of the passage implies that during the “short lag,” a land bridge between Africa and Eurasia would
  - A. Be inhabited primarily by species of antelope originating in Eurasia
  - B. Be characterized by areas of widely varying elevation above sea level
  - C. Be inhabited by a wide diversity of antelope species
  - D. Contain habitats that could sustain warm-adapted antelope species
  - E. Contain habitats similar to habitats at much higher latitudes in Eurasia
3. According to the passage, which of the following best accounts for the apparent bias in antelope-migration direction?
  - A. Warm-adapted antelope species are rarely able to tolerate cool habitats, whereas cold-adapted antelope species usually can tolerate warm habitats.
  - B. During global warming periods, land bridges, when present, lack habitats suitable for sustaining warm-adapted antelope species.
  - C. Under most climatic conditions, Africa offers a larger number of suitable antelope habitats than does Eurasia.
  - D. Many more species of antelope have originated in Eurasia than have originated in Africa.
  - E. Land bridges are more likely to exist when climate change favors migration to warmer climates than when climate change favors migration to cooler climates.

### Passage 166

In recent decades, scholars of American literature have skillfully revealed authors’ simultaneous accommodation and resistance to an increasingly commercialized, capitalized environment during the early nineteenth century. Historians of the period have not, however, fully exploited literary criticism, due to the disciplinary boundaries that mark contemporary academic research. Few historians have extensive training in critical theory and its specialized languages, and the sheer volume of work in



early American history and literature challenges anyone who would master either field, much less both. Moreover, historians study people across the nation, but much literary scholarship called “American” actually examines works produced in northeastern states. And historians usually study the operations of capitalism in its details, while literary critics produce a generalized picture of literary commodification.

1. As discussed in the passage, the literary scholars and the historians differ in which of the following ways?
  - A. The amount of scholarship that they produce
  - B. The nature of their geographic focus
  - C. The extent to which they are critical of early capitalism
  - D. The extent to which they are interested in interdisciplinary study
  - E. The extent to which they restrict their focus to a particular time period
2. The passage cites which of the following as a reason for historians’ failure to fully exploit literary criticism?
  - A. Historians’ overly thematic approach to literature
  - B. Historians’ conservative notion of what constitutes literature
  - C. Historians’ lack of interest in critical theory
  - D. The distinctive nature of much literary criticism
  - E. The ahistorical quality of much literary criticism
3. The passage cites which of the following as reasons for historians’ failure to fully exploit literary criticism?
  - A. The amount of scholarship involved
  - B. The distinctive nature of literary criticism
  - C. The ahistorical quality of much literary criticism

#### **Passage 167**

Because different mammalian species favor different environments, identifying and counting bones from prehistoric deposits in caves can reveal much about climatic changes. However, using large mammals’ bones can be problematic. Some species, such as red deer, are very adaptable—at home on both open grassland and thick woodland. Moreover, some large-animal bones may have traveled considerable distances before being discarded: both carnivores and humans can have large hunting territories and bring home large animals quite unlike those near their den or campsite. Consequently, the bones of the small mammals found within cave sediments provide a better index of climate change: they are generally more numerous, the species are more sensitive to environmental conditions, and few travel far within their short lives.

For the following question, consider each of the choices separately and select all that apply

1. The passage mentions which of the following as an obstacle to using animal bones to reconstruct past climate changes?
  - A. The size of some carnivorous species’ hunting territories.
  - B. The range over which some small mammals travel
  - C. The ability of some species to thrive in multiple types of environment.
2. The passage mentions “red deer” as an instance of an animal that
  - A. is likely to be transported long distance by carnivores or humans.
  - B. is frequently represented in prehistoric bone deposits.
  - C. can be used to reconstruct past climate changes.
  - D. can travel considerable distances over the course of its life.
  - E. yields limited information about past environmental conditions.

#### **Passage 168**

Scientist's view of climate variability during the Holocene era (the geological period extending from about 11,000 years ago to the present) is rapidly changing, based in part on increased knowledge of large scale climate systems such as the Southern Oscillation ("El Niño"), the North Atlantic Oscillation, the Asian monsoon, and the Pacific-North American pattern—all of which interact and impact climate variability to far-flung areas of the globe. There is also a greater appreciation for the diversity of climate variability. Early notions of globally synchronous cooling and warming, such as the Little Ice Age and Medieval Warm Period, have given way to a **better documented view** that late Holocene climate variability is expressed as multidecadal temperature anomalies that tend to be region-specific.

1. Which of the following most accurately characterized the "better documented view"?
  - A. Periods of cooling and warming throughout the Holocene have been characterized by small variations in temperature.
  - B. Climate variability during the late Holocene era was not globally synchronous.
  - C. The little Ice Age and Medieval Warm Period were typical of periods of global climate change that have occurred within the last 11,000 years or so.
  - D. The notion that climate variability is region-specific rather than global is based on an inaccurate understanding of how large scale climate system interact
  - E. Large-scale climate systems have had much less effect on global climate than earlier research suggested.
2. The author mentions the Little Age and the Medieval Warm Period primarily as examples of
  - A. global temperature changes that occurred during the Holocene era.
  - B. the diversity of climate variability during the Holocene era
  - C. now-unsupportable interpretations of climate events that occurred in the Holocene era
  - D. temperature anomalies in the Holocene era that scientists have linked to the interaction of large-scale climate systems.
  - E. evidence for the claim that most temperature anomalies in the Holocene era have tended to be region-specific

### Passage 169

Biographies are more popular than ever, selling in numbers that have made them attractive to publishers and authors alike. Surprisingly, among the most popular are historical biographies. Often written by journalists, talented amateurs without doctorates, or Ph.D.s who do not have academic appointments, these books have helped rekindle the lay public's interest in history. But most professional historians—especially younger scholars—avoid biographical projects. In part, this is because the professional expectation that scholars produce something new makes biography appear unsophisticated. It is also because producing a definitive one that meets the high standards of the profession can be a daunting task requiring many years of research. The tragedy here is that biographies of historical subjects require a professional historian's touch.

1. The "tragedy" mentioned has to do with which of the following?
  - A. Too much biographical research is being done on historical figures not worthy of full-scale biographical treatment.
  - B. Excessively high standards are keeping professional historians from producing innovative academic studies.
  - C. Professional historians are not tending to undertake work in an important area of scholarship that would benefit from their participation.
  - D. Standards for historical research are not being clearly articulated to those engaged in biographical work.
  - E. Professional historians are not receiving the kind of training that would enable them to do skilled biographical research.
2. Select the sentence that identifies a positive consequence of the popularity of historical biographies.

### Passage 170

Ingestion of food containing spores of the pathogen *Ascosphaera apis* causes a fatal fungal disease known as chalk brood in honeybee larvae. However, larvae must be chilled to about 30°C (normal brood-comb temperature is 33-36°C) for the disease to develop. Accordingly, chalk brood is most common in spring and in small colonies. A recent study revealed that honeybees responsible for hive-temperature maintenance purposely raised the hives' temperature when colonies were inoculated with *A. apis*, this "fever," or up-regulation of temperature, occurred before any larvae died, suggesting that the response is preventative and that either honeybee workers detect the infection before symptoms are visible or larvae communicate the ingestion of the pathogen. Temperature returned to normal by the end of the study, suggesting that increased temperature is not optimal when broods are not infected, as well as that the fever does not result merely from normal colony growth (i.e., an increase in the number of workers available for temperature maintenance).

1. The primary purpose of the passage is to
  - A. discuss the findings and implications of a particular study
  - B. illustrate a process that formerly had been misunderstood
  - C. outline the methods used to investigate a problem
  - D. provide evidence to support a controversial theory
  - E. contrast alternative interpretations of certain data
2. According to the passage, researchers concluded that fever in honeybee colonies is preventative because their study showed that such fever
  - A. does not occur when hive temperatures are within normal range
  - B. protects adult bees from contracting chalk brood infection
  - C. occurs prior to the death of any larvae
  - D. is more likely to occur in spring than in summer
  - E. does not have an effect on uninfected broods
3. The passage implies that if hive temperature had not returned to normal by the end of the study in question, a probable conclusion of the researchers would have been that
  - A. up-regulation of temperature is a preventative measure against chalk brood
  - B. honeybees are incapable of purposely raising hive temperatures
  - C. *A. apis* cannot be completely eradicated through up-regulation of temperature alone
  - D. honeybee larvae have a mechanism to alert adult honeybees to the presence of *A. apis*
  - E. honeybee larvae may benefit from increased hive temperature even when there is no *A. apis* present
4. According to the passage, which of the following is true of chalk brood infection among honeybee larvae?
  - A. Larvae in small colonies are more likely to pass the infection to adult honeybees than are larvae in large ones.
  - B. Infection with chalk brood induces larvae to raise their hive's temperature.
  - C. The infection is more likely to affect larvae in winter than in spring.
  - D. Larvae fail to develop symptoms of the disease when their brood-comb temperature remains within the normal range.
  - E. Infected larvae exhibit visible symptoms of disease for a significant time before death.

### Passage 171

The discovery of dinosaur bones in Alaska's northern latitudes raises the question of how dinosaurs survived the cold and sustained darkness typical of the region's winters during the Cretaceous period. If, as some evidence suggests, some dinosaurs did not migrate to milder climates in winter, then presumably they would show adaptations **supportive** of year-round life in the high latitudes. The small, meat-eating dinosaur called *Troodon* is a possible example. *Troodon* teeth are very common in Alaska, suggesting that the population was large and widespread. *Troodon* is distinctive among predatory dinosaurs for its exceptionally large eyes. Among **modern animals**, proportionately large eyes are usually an adaptation to low light conditions. In the daylight months, dimly lit forests

would have provided a suitable environment for *Troodon* to thrive.

1. The author mentions “modern animals” in the highlighted portion of the passage primarily in order to
  - A. explain why some animals have an advantage over others in low-light conditions
  - B. indicate the variety of ways in which animals may adapt to challenging habitat conditions
  - C. contrast a particular adaptation common among modern animals with adaptations that might have occurred in dinosaurs
  - D. cite a reason for concluding that *Troodon* may have adapted to Alaska’s winter conditions
  - E. show how *Troodon* may have resembled some modern animals more closely than it resembled other dinosaurs
2. In the context in which it appears, “supportive of” most nearly to
  - A. enabling
  - B. advocating
  - C. maintaining
  - D. enduring
  - E. proving

### Passage 172

Wildcats are improbable candidates for domestication. Like all felids [cats], wildcats are obligate carnivores, meaning they have a limited metabolic ability to digest anything except proteins. Wildcats live a solitary existence and defend exclusive territories, making them more attached to places than to people. Furthermore, cats do not perform directed tasks and their actual utility is debatable; even as mousers, in this latter role, terrier dogs and ferrets are preferable. **Accordingly, there is little reason to believe an early agricultural community would have sought out and selected the wildcat as a house pet.** Rather, the best inference is that wildcats exploiting human environments were simply tolerated by people and, over time and space, they gradually diverged from their “wild” relatives.

1. The author would most likely agree that in early agricultural communities cats would have been
  - A. more tolerant than ferrets of contact with humans
  - B. as incapable of performing directed tasks as ferrets
  - C. less likely to be solitary than ferrets
  - D. less useful than terrier dogs at controlling rodents
  - E. more easily domesticated than terrier dogs
2. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole
  - A. It challenges a widely accepted theory presented in the passage.
  - B. It explains a fact that has long puzzled researchers.
  - C. It draws a conclusion from evidence presented in the passage.
  - D. It presents new facts in support of a hypothesis.
  - E. It formulates a new hypothesis from evidence presented in the passage.

### Passage 173

The North American red squirrel has expanded its range into Indiana in conjunction with an increase in the fragmentation of forests due to agriculture and with a decrease in the number of gray squirrels, whose population is sensitive to forest fragmentation. Red squirrels tend to hoard food in a central location, while gray squirrels are scatter hoarders. Burial of nuts by scatter hoarders is highly beneficial for the regeneration of nut-producing trees. Red squirrels would have to collect 1,000 walnuts to achieve the same germination success that results from the handling of 150 walnuts by gray squirrels. If red squirrels successfully colonize the fragmented landscapes of Indiana in response to decreasing numbers of gray squirrels, they may not compensate completely for the loss of gray squirrels as seed dispersers.

1. The passage implies that compared with gray squirrels red squirrels
  - A. are less effective seed dispersers
  - B. are less successful colonizers
  - C. are more efficient at scatter-hoarding
  - D. do not bury as many nuts
  - E. do not collect as many nuts
2. Select the sentence in the passage that provides an illustration of a claim stated elsewhere in the passage.

#### Passage 174

Norman Rockwell was the most popular illustrator in the United States during the mid-twentieth century, yet no important artist of his time showed interest in his work. This prompts the question; how good an artist was Rockwell? His technique is an adaptation of standard nineteenth-century verismo (an artistic movement marked by use of common everyday themes), competent but undistinguished. While he had an acute sense of gesture and facial expression, his anatomical competence was limited. In *No Swimming* (1921), for example, there is a bit of leg visible between the legs of the central figure that belongs to the boy lagging behind, but it is so shapeless that one cannot be considered a sophisticated perversion of expressive purposes as, for example, would the elastic spine in Ingres's *Grande Odalisque*. However, Rockwell's work does exhibit a genius in its fastidiousness about the absolute justness of every expression and its precise positioning of each prop. It is this attention to detail that renders unforgettable his best images, such as the open mouth in the form of an O of the little who has just discovered that there is no Santa Claus.

1. The passage is primarily concerned with
  - A. describing a change in the reputation of a particular artist.
  - B. suggesting that the work of particular artist has been overrated
  - C. evaluating the skill of particular artist.
  - D. placing the work of a particular artist in its historical context.
  - E. contrasting two views of particular artist.
2. It can be inferred that the author of the passage would probably agree with which of the following statements about Rockwell's work?
  - A. Rockwell's work was evaluated fairly by the important artists of the mid-twentieth century.
  - B. Rockwell's work was dismissed by many of his mid-twentieth-century contemporaries because they considered it primarily a product of popular culture rather than high art.
  - C. Although Rockwell's work lacked artistic merit, it is important for what it reveals about mid-twentieth-century culture.
  - D. Although Rockwell's work was rejected by his contemporaries, he is now considered one of the most important artists of the mid-twentieth century.
  - E. Although Rockwell's work demonstrated a lack of certain skills, it does have qualities that make it worthy of appreciation.
3. Select the sentence in the passage that indicates Rockwell's artistic reputation among his contemporaries.

#### Passage 175

A recent exhibition of works by late-nineteenth-century painters Mary Cassatt, Berthe Morisot, and Eva Gonzales offered a rich visual **counterpart to** studies focusing new attention on the social and ideological forces that influenced their work. The paintings by Gonzales were particularly illuminating. Long marginalized by scholars as little more than an apprentice of Edouard Manet, Gonzales is revealed by the exhibition as possessing remarkable, if uneven, talents. Given the exhibition's focus, and especially the provocative new emphasis on Gonzales, the accompanying catalog proved disappointing. There often-quoted essays by critics contemporary to the artists—essays in themselves noteworthy but historical artifacts nonetheless—provided the exhibition with its only critical readings.

Thus, a significant opportunity for scholarly debate was not only lost but even seemed pointedly avoided.

1. Select the sentence in which the author describes and counters an assessment of a particular artist.
2. In the context in which it appears, “counterpart to” most nearly means
  - A. duplicate of
  - B. alternate to
  - C. complement to
  - D. opposite of
  - E. emblem of

### Passage 176

Elizabeth Bishop’s *Complete Poems* (1927-1979) has come to seem to most of its readers so achieved and sufficient as a life’s work that it is not hard to lose sight of how slowly Bishop wrote poems and of how few poems, finally, she completed. But Bishop herself never ceased to find her productivity inadequate. The size and pace of her output were always in her eyes a failing (vaguely moral in complexion) for which she apologized throughout her career, although, as I will argue in this essay, Bishop’s inability to write more poems than she did was also a refusal to do so. The small, manageable size of Bishop’s body of work has facilitated its extraordinary critical reception since her death. (Robert Lowell, whose oeuvre is so much larger, has never had a complete edition of his poetry published.) Yet the size of her work is also a sign of Bishop’s alienation, that is, her uneasy, resistant relation to the literary culture that today claims her as the major poet of her generation.

**Consider each of the choices separately and select all that apply**

1. The passage indicates that the small size of Bishop’s body of work contributed to bringing about which of the following?
  - A. bishop’s alienation from the literary culture of her generation
  - B. the favorable scholarly attention that Bishop’s work has received since her death
  - C. an interest among readers regarding why Bishop wrote so slowly
2. In the context in which it appears, “complexion” most nearly means
  - A. appearance
  - B. constitution
  - C. hue
  - D. intricacy
  - E. personality

### Passage 177

Following the United States Civil War(1861-1865), many former slaves in the rural South became sharecroppers (raising a landlord’s crop for a share of the profits) or tenant farmers(selling what they raised and paying a share of the profits as rent). Most historians tend to depict these African American rural reformers as Robert Lloyd Smith, founder of the Farmers’ Improvement Society of Texas, and Joseph Elward Clayton, the first African American to organize farmers’ institutes for the Texas Department of Agriculture, as anti-racists. Both men advocated comfortable homes and better schools for African Americans, both attributed poverty and illiteracy to causes other than racism, such as insect damage to crops, and both worked to keep Black farmers on the land, although Smith opposed farm tenancy system on Black farmers and of accommodating racism. While the extent of these reformers’ influence requires more study, their organizations provided a voice for African American farmers seeking to improve their positions in the agrarian South.

1. The passage is primarily concerned with
  - A. restoring the reputations of two reformers whose accomplishments have long been denigrated by historians

- B. refuting criticism of two reformers made by their contemporaries by demonstrating that those criticisms are baseless
  - C. providing evidence to support a claim that historians' understanding of a particular phenomenon may be incomplete
  - D. discussing some of the reasons that two reformers who were well-known during their lifetimes are considered by historians today to have been ineffective
  - E. suggesting an alternative interpretation of the effect of the farm tenancy system on the economy of the rural South following the Civil War
2. The author of the passage would most likely agree with which of the following statements concerning Smith and Clayton?
- A. More research is required to determine whether or not their organizations were typical of those established to aid African American framers in the post-Civil War rural South
  - B. Their contributions to the improvement of the living conditions of African American framers were overshadowed by subsequent political controversy
  - C. Their achievements as reformers have been exaggerated by many historians of the post-Civil War period
  - D. There is evidence demonstrating that they were committed to aiding African American farmers in the rural South.
  - E. The extent of the criticism made about them by their contemporaries is difficult to determine.

### Passage 178

One of the reasons why many early British colonies in North America failed amid the New World's abundance was that the settlers' mindset prevented them from living like the native inhabitants. From Native Americans, the settlers learned such skills as building **brushwood weirs** to trap fish, but they did not adopt the real key to success: mobility. The whole intellectual foundation of European civilization was fixity — a worldview profoundly different from that of Native Americans, who moved in response to changing food resources. Settlers were drawn to North America by tales its extraordinary abundance, not realizing that abundance is seasonal. Culture and ecological knowledge allowed Native Americans to exploit different food sources at different time of year.

1. The author suggests which of the following about the early British colonies in North America that failed?
- A. Their inhabitants' worldview was deeply affected with native people and practices
  - B. Their inhabitants experienced critical food shortages in part because their culture hindered their ability to exploit seasonally available resources.
  - C. Their longevity would have been greater had the inhabitants adopted more of the fishing technologies used by Native Americans
2. The author mentions "brushwood weirs" primarily in order to
- A. Demonstrate that Native Americans provided certain forms of assistance to colonial settlers
  - B. Identify a skill that allowed Native Americans to thrive in regions where colonies failed to
  - C. Distinguish the kinds of technologies used by Native Americans from those used by colonial settlers
  - D. Acknowledge that colonial settlers adopted certain American ways even though they failed in the New World
  - E. Contrast the assumptions of British colonial settlers and Native Americans in the New World

### Passage 179

Most popularizations of science actually do more harm than good. Why? The single most important feature of scientific work is not this or that specific result. Instead, what science accomplishes--and what physics in particular accomplishes so beautifully--is the linking of diverse phenomena, the binding together of a myriad of predictions and explanations. What nearly all popularizations do is systematically undermine the progressive reasoning that links principles, conventions, experiments, and laws. Bad science writing splinters the most interesting feature of science, its long run of connected argumentation, into isolated metaphors that last just long enough to evoke a particular result: black holes are said to be huge funnels and quantum electron orbits are characterized as diffuse clouds.

**Consider each of the choices separately and select all that apply**

1. The passage implies that most popular science writing
  - A. focuses on discrete results arrived at by scientific reasoning
  - B. spends more time describing scientific personalities than scientific processes
  - C. gives readers an incomplete view of the interrelatedness of scientific discovery
2. The author of the passage mentions black holes in order to provide
  - A. an instance of a factual error to which popularizations of science are prone
  - B. a metaphor for the emptiness typical of most popular science writing
  - C. a case in which a metaphor for a scientific process leads to a misunderstanding of that process
  - D. an example of the metaphorical explanations the author believes are typical of bad science writing
  - E. an illustration of a complex phenomenon for which most readers require simplified explanations

### Passage 180

The male lion's mane consists of hair of varying length and color, covering, to varying degrees, the head, neck, shoulders, and chest. Schaller suggested that the mane protects the area of the body "towards which most social contact is directed" by absorbing blows and bites. **Darker mane hairs are thicker than lighter hairs,** so darker manes may provide better protection. These ideas suggest that males with longer and darker manes will be wounded less frequently and/or with less severity on the area covered by the mane, but direct tests of this prediction are difficult. Individual males are seldom seen daily, and the mane itself obscures many wounds beneath it from view. Furthermore, even in the best studied population, serious fights between lions are rarely observed.

1. Which of the following best describe the function of the highlighted portion of the passage?
  - A. to summarize the results of an experiment
  - B. to provide evidence on which a particular prediction is offered
  - C. to offer a counterexample that undermines a propelled explanation
  - D. to identify a phenomenon that Schaller found difficult to explain
  - E. to explain the variation among individual lion manes



2. The passage mentions which of the following as an obstacle to verify the “prediction” mentioned in the passage?

- A. Wounds to the mane area are often difficult to observe.
- B. Only a few lion populations have been well studied.
- C. The severity of fights between lions is difficult to determine.
- D. Individual males seldom have strong distinguishing characteristics.
- E. Researchers have relatively few opportunities to observe lion populations directly.

### **Passage 181**

Madagascar’s Mahafale cattle raisers have incorporated the prickly pear cactus into their pastoral economy, which depends on assisting their cattle through the dry season, when grass and water are scarce. Rather than relying on nomadism in the pursuit of water and pasture for their livestock, they have turned to cactus to keep stock alive. This has influenced the cattle raisers’ way of life, particularly in terms of diet and mobility. Women harvest cactus for their families to eat. Male herders work cactus as a vegetable crop for cattle. For these benefits, pastoralists sow, prune, and shape prickly pear into living fences around their corrals. In doing so, these herders have become cactus cultivators, which has reduced their mobility.

1. Select the sentence in the passage that tells how the prickly pear has affected the Mahafale diet. Consider each of the choices separately and select all that apply.

**Consider each of the choices separately and select all that apply**

2. Which of the following is mentioned in the passage as an affect of cactus cultivation on the Mahafale’s pastoralist way of life?

- A. The Mahafale no longer need to help their cattle survive during the dry season.
- B. The Mahafale have abandoned their pastoralist way of life.
- C. The mobility of the Mahafale has been diminished.

### **Passage 182**

Catherine Stimpson calls for a reassessment of literary merit based on affective standards—on how literary works make readers feel—rather than on the aesthetic standards traditionally used to define the canon, the body of literary works generally accepted as “great”. Stimpson advocates an alternative paracanon for literary works, such as Louisa May Alcott’s *Little Women*, because she believes such works have been unjustifiably neglected by unsympathetic scholars. According to Stimpson, a paracanon work may or may not have literary value by traditional standards; rather, its worth consists in its “capacity to inspire love.” Elizabeth Barnes criticizes Stimpson’s approach as subjective and therefore uncritical “Although Stimpson never actually defines ‘love,’ she implies that a lovable work is one that so engages the reader that its worldview becomes inseparable from the reader’s own” (Stimpson acknowledges that the values reflected in *Little Women* may have subconsciously influenced her invention of the paracanon). For Barnes, the conflation of ethics and aesthetics implicit in Stimpson’s approach (in which “good” can refer to something morally sound and/or above average in quality) demonstrates the ambiguity inherent in such concepts as goodness and love.

- 1. According to the passage, Stimpson advocated the creation of a paracanon because she A. found many of the works that were included in the canon to be uninspiring
- B. rejected the ethical standards reflected in many canonical works
- C. failed to convince other scholars that some of her favorite works should be added to the canon
- D. felt that the values of some works has gone unrecognized by critics who are concerned only with traditional aesthetic standards
- E. insisted on strict adherence to traditional standards for the evaluation of literature

2. The author of the passage mentions Louisa May Alcott's *Little Women* primarily in order to provide an example of a work that
- A. the author of the passage feels has been inappropriately excluded from the canon
  - B. the author of the passage and Stimpson agree is emotionally satisfying
  - C. Stimpson feels has not been sufficiently appreciated by scholars
  - D. conforms to Barnes's ethical and aesthetic standards
  - E. presents an ambiguous view of the concept of love
3. It can be inferred from the passage that Barnes would be most likely to agree with which of the following characterizations of Stimpson's approach to assessing literary works?
- A. It requires the application of more exacting standards than are traditionally employed
  - B. Its application would result in the exclusion from the para canon of most of the works included in the canon
  - C. It accords recognition to too large and diverse a body of literature
  - D. It involves the use of a criterion that is not rigorously defined
  - E. It results in evaluations that are more objective than those based on traditional aesthetic standards

### Passage 183

Oscillatory swimming—the alternating of deep dives with forays toward the surface—is among the most common behaviors of large marine animals in the open ocean. The reason most often proposed for this behavior is to warm the body after heat loss during descent into cooler water. Tuna, mako sharks, and white sharks maintain an internal body temperature above that of the surrounding waters thereby improving their muscular efficiency and enabling them to swim with bursts of speed.

**Consider each of the choices separately and select all that apply**

1. According to the passage, maintaining an internal body temperature above that of surrounding waters enables certain marine animals to
- A. use their muscles with greater efficiency
  - B. swim faster than usual for short periods
  - C. alternate between deep diving and surface swimming
2. In the context in which it appears, “forays” most nearly means
- A. trips
  - B. attacks
  - C. attempts
  - D. adventures
  - E. encroachment

### Passage 184

Data of modern and historic peasant communities suggest that individuals and communities specialize in ceramic production for trade primarily to offset subsistence shortfalls arising from inadequate or insufficient agricultural land. Harry investigated whether this correlation of ceramic specialization with agricultural marginality occurred among prehistoric inhabitants of the American Southwest. At

Arizona's West Branch site, occupied A. D. 900-1100, abundant pottery manufacturing materials suggest villagewide ceramic production in excess of that needed for household purposes.

1. The final sentence of the passage primarily serves to do which of following?
  - A. cite a particular factor that may have influence the decision to settle the West Branch site
  - B. identify a possible reason why the inhabitants of the West Branch site may have specialized in the manufacture of ceramics
  - C. suggest that inhabitants of the West Branch site may have had agricultural surpluses to use for trade with other settlements in the region
  - D. present evidence to support a claim that the West Branch site was not a pottery consuming settlement
  - E. cite one reason to doubt that the ceramic specialization at the West Branch site served to offset subsistence shortfalls
2. Replacement of the word "marginality" with which of the following words results in the least change meaning for the passage?
  - A. peculiarity
  - B. insignificant
  - C. nonconformity
  - D. deficiency
  - E. futility

### **Passage 185**

Although Klezmer—a style of traditional Jewish folk music from Eastern Europe—grew from very diverse musical traditions, Roma(Gypsy), Greek, and Romanian elements eventually became so predominant that some scholars refused to recognized klezmer as a separate genre. If one listens closely, however, one can learn to distinguish the sound of a Klezmer interpretation from other related performance styles. Yiddish-speaking Jews routinely use several uniquely descriptive words to identify the sounds found in the Jewish approach to music. Krekht (Yiddish for "groan") refers to a wailing sound reminiscent of weeping, tshok refers to a laugh-like instrumental sound; and a kneytsh is a sob-like "catch". These and other elements typical of klezmer are also found in other forms of Jewish musical expression, including cantorial music.

1. Which of the following can be inferred from the passage about Roma, Greek, and Romanian music?
  - A. They are frequently difficult to distinguish from one another.
  - B. They have had a significant influence on klezmer music.
  - C. They were not recognized as separate genres by certain scholars.
  - D. They contain elements analogous to the tshok.
  - E. They were ignored by Yiddish-speaking Jewish musicians.

**Consider each of the choices separately and select all that apply**

2. It can be inferred that the author would be likely to agree with the highlighted “some scholars” about whether
- A. any traditions other than Roam, Greek and Romanian contributed to the development of klezmer
  - B. the degree of resemblance between klezmer and the Roma, Greek, and Romanian traditions is enough to preclude klezmer’s being a separate musical genre
  - C. such musical devices as the krekhts are found throughout Jewish musical expression

**Passage 186**

Climatologists observed in 1964 that a slow warming of the surface of the North Atlantic in the 1910s and 1920s could well have been driven by a surge of warm water up the Gulf Stream. This Atlantic warming accompanied a global warming that by the 1940s had produced the highest global temperatures to that point in the records. It was so warm that statistical techniques used in the 1990s to detect the “fingerprint” of greenhouse warming in climate records also show the 1940s having greenhouse warming. However, no one believes enough greenhouse gases had reached the atmosphere by then to cause much of a human-induced warming. That inconsistency has led greenhouse contrarians to claim that any recent warming could be natural rather than anthropogenic.

**Consider each of the choices separately and select all that apply**

1. It can be inferred that the “contrarians” mentioned in the passage would agree with which of the
- A. The extent of the global warming that occurred between the 1940s and the 1990s has been exaggerated by some climatologists.
  - B. Changes in global temperatures in the 1990s are a part of a trend that is distinct from any trend that may have existed in the 1910s and 1920s.
  - C. Recent changes in global temperature may not be the direct result of human activity.

**Consider each of the choices separately and select all that apply**

2. Which of the following statements about the global warming observed in the 1940s is implied by the passage?
- A. It was part of a climatic change that can be traced to the 1910s and 1920s.
  - B. Its cause was not apparent to climatologists until the 1990s.
  - C. It is doubtful that it was caused primarily by greenhouse gases produced by humans.

**Passage 187**

The area of literary rights is confusing for scholars whose work focuses on collaborative materials particularly materials of earlier Native American writers. Questions arise over authorship and the determination of literary heirs. For example, recognition of heirs turns on the European-based assumption of the private ownership of a written statement. The first person to write down an oral tale can become legally recognized as the owner of that version of the story, just as the first chemist to patent a tribal healing practice becomes the owner of the resulting chemical formula. This instance on

private rather than collective ownership, derived from the nineteenth-century notion of the autonomous, creative, authorial voice, flies in the face of those who come from an oral tradition. Thus a scholar concerned with finding literary heirs in order to afford them the benefits of copyright laws must in so doing accede to legal concept of ownership that has been used to appropriate knowledge from community-based cultures.

1. The example of a chemical patent is used to illustrate a
  - A. legal mechanism by which community knowledge can be turned into private property
  - B. technological development that goes beyond the scope of nineteenth-century science
  - C. government action that creates a temporary form of intellectual property
  - D. kind of expression that exists only in written, rather than oral, form
  - E. way in which medical innovation can be rewarded
2. The author of the passage focuses on a contrast between
  - A. patents and copyrights as ways of protecting ownership
  - B. oral and written as means of artistic expression
  - C. literary heirs and authors of literary works as creative thinkers
  - D. individual and collective ownership of cultural products
  - E. contemporary and nineteenth-century views of authorship
3. According to the passage, the notion of a literary heir depends on a presupposition that can be traced to
  - A. a confusion over the purposes of collaboration
  - B. a misunderstanding between people from different cultures
  - C. a nineteenth-century view of authors as creative individuals
  - D. oral traditions that hand down knowledge through generations
  - E. scholars who first recorded oral tales in written form

### **Passage 188**

Growing grapes in greenhouses containing air enriched with carbon dioxide increases crop yields, an effect that is enhanced when the growing temperature is also raised several degrees. Although enclosed cultivation is impractical in vineyards, increases in yields from grape cultivation in the open can be expected because emissions from the burning of fossil fuels will almost certainly lead to an increase in the carbon dioxide content of atmospheric air over the next century.

1. Which of the following, if true, most weakens the argument?
  - A. When grapes are grown in greenhouses, it is relatively easy to control the grape pests that thrive in air enriched with carbon dioxide.
  - B. Recent improvements in pest control have increased grape yields in many vineyards.
  - C. Increasing carbon dioxide levels in greenhouses has not been shown to improve the quality of grapes grown in greenhouses.

- D. Increasing carbon dioxide levels in greenhouses increases the sweetness of raisins made from grapes grown in the greenhouses.
- E. As the carbon dioxide level in the open air increases, temperatures at the Earth's surface will also increase.

2. Which of the following would be most useful to determine the possibility that the grapes yields increase with the raise of the temperature?

- A. Whether increasing carbon dioxide levels in greenhouses improves the eating quality of the grapes grown in the greenhouses
- B. Whether in the future the market for grapes will be greater than it is now
- C. Whether temperatures today often get so high in regions where grapes are grown that the grapes suffer serious damage
- D. Whether the use of greenhouses for growing grapes serves research purposes only
- E. Whether the economic benefits that might be derived from a major increase in world grape production would outweigh any economic harm resulting from negative health effects associated with increased worldwide carbon dioxide levels

### **Passage 189**

The United States Civil Rights movement, which began in the 1950s and gained momentum in the 1960s and 1970s, owed a heavy debt to African American newspapers. This is not to suggest that the African American press caused the Civil Rights era. But its continual push from 1910 to 1950 or more African American rights, using a compelling form of advocacy journalism rather than the standard objective newspaper style, allowed those who in the 1950s began pushing nationally for equality to start at a far higher level than if the African American press had not existed. This point has largely been missed by many Americans, who seem to believe the Civil Rights era erupted from a standstill like a dormant geyser. But that is not how history occurs.

1. The primary purpose of the passage is to
- A. challenge a particular scholarly argument
- B. identify the cause of a historical development
- C. present a summary of a long-standing debate
- D. explain the origins of a flawed theory
- E. correct a commonly held misconception
2. According to the passage, African American newspapers contributed to the Civil Rights movement primarily by
- A. exposing bias in supposedly objective newspaper accounts
- B. connecting the movement's leaders with local communities
- C. providing a platform for leaders to be heard by a wide audience
- D. laying the groundwork for a later national effort
- E. building momentum for efforts that were already in progress

### Passage 190

In 1995, after an absence of nearly 70 years, wolves were reintroduced into Yellowstone National Park. During the wolf-free era, heavy browsing of aspen trees by elk populations spelled doom not only for trees themselves but for a host of other creatures dependent on them, such as beavers, whose population in Yellowstone crashed after wolves were removed. Without beavers to create ponds, wetland ecosystems--aquatic plants, amphibians, birds-- were devastated. When wolves returned, grazers and browsers resumed normal patterns of behaviors, preferring safer, open areas over the dense cover and streamsides where carnivores can lurk. Keeping elk wary and on the move, wolves gave aspen and other young trees the opportunity to grow and become reestablished.

1. The passage asserts which of the following about beaver populations in Yellowstone? A. They have rebounded since the reintroduction of wolves.  
B. They were adversely affected by the feeding habits of elk population.  
C. They increased during the period when wolves disappeared from the park.  
D. They have historically had an adverse effect on the park's wetland ecosystems.  
E. They are essential to the health of the park's aspen trees.
2. The author would most likely agree with which of the following claims about the reintroduction of wolves to Yellowstone?  
A. It indirectly harmed some of the park's amphibian habitats  
B. It reduced the number of elk feeding along streamsides  
C. It led to greater species diversity among the park's grazers and browsers.  
D. It significantly increased competition for food among the park's carnivores.  
E. It fostered the resurgence of tree species that once flourished in the park's open areas.

### Passage 191

Seeding a forest with nonnative species after a fire can impede native plant regeneration and spread invasive species in vulnerable fire-affected soils. Moreover, native seed sources are almost always sufficient for early nature reestablishment of native species, so planting should be considered only when natural regeneration is unlikely. Replanting dense stands of fast-growing conifers--a common postfire management practice--truncates the biologically rich early stage of ecological succession and can increase the severity of future fires. Other treatments should be carefully scrutinized for their potential to spread noxious weeds. For instance, straw much applied extensively to reduce erosion after the 2002 Hayman Fire in Colorado was contaminated with cheatgrass, an invasive grass difficult to control or eradicate once established.

**Consider each of the choices separately and select all that apply**

1. According to the passage, which of the following is a consequence of replanting an area with dense stands of fast-growing conifers after a fire?  
A. The normal progression of ecological development will be affected\*  
B. The conifers will be slower growing than if they had been less densely planted.  
C. Subsequent fires may be more severe than they would have been if such a replanting had not been done.

2. The passage implies which of the following about native plant regeneration in forests after a fire?
  - A. It is hampered by the changed nature of the fire-affected soils.
  - B. It will generally occur without the human interventions of reseeding or replanting.
  - C. The likelihood of its success increases when forest managers have on hand a good supply of native seed sources.
  - D. Native plants will inevitably have to compete with normative plants.
  - E. The earlier nature reestablishment occurs, the more complete it will be

### Passage 192

Typical of Argentine melodrama of the 1930s were the films starring Libertad Lamarque, the genre's biggest box-office attraction. Her most frequent role was that of the tango singer whose romance with a wealthy suitor is blocked by his elitist family. Despite its widespread social acceptance by the 1930s tango continued to be associated in film melodramas with criminality and vice. As Diana Paladino remarks, in these films, "the tango songstress was doomed from the start." Nevertheless, if melodramatic logic dictated that Lamarque be punished for the transgressive act of singing tango, surely that judgment was not shared by the members of the audience, many of whom were drawn to her early movies precisely because of her fame as a tango singer.

1. Which of the following claims about Lamarque can be inferred from the passage?
  - A. She considered herself to be primarily a tango singer rather than a movie actor.
  - B. By the end of her movie career, she was exercising considerable control over the writing and direction of her films.
  - C. Her personality differed greatly from those of the characters she portrayed in films.
  - D. Her popularity as a tango singer preceded her popularity as an actor
  - E. She continued to act in movies after she had ceased performing as a tango singer
2. According to the author of the passage, which of the following is true about the tango?
  - A. By the time Lamarque starred in films as a tango singer, the tango was socially acceptable.
  - B. Outside Argentina the tango's reputation was quite different from what prevailed in Argentina.
  - C. The tango began to gain popularity in Argentina once it became an element in melodramatic films.
  - D. By the 1930s, no one in Argentina associated the tango with criminality and vice.
  - E. Until the 1930s, the tango was primarily thought of as a dance form rather than as a genre of song.

### Passage 193

Progressivism, the wave of reform movements in the early twentieth century whose stated intention was to make United States society more democratic, has undergone significant scholarly reevaluation by historians over the years. In the 1960s, leftist scholars dismissed progressive reform as a mask for the empowerment of individuals forming a corporate, capitalist elite. In the two subsequent decades, many scholars began to question whether there was any such thing as progressivism; the phenomenon seemed so diverse and amorphous that the word itself, some claimed, had no meaning. In the early 1990s, however, the tone, if not always the substance, of historical accounts of progressivism changed again. Although some scholars admitted that progressivism was diverse, they insisted that there is an identifiable "progressive minimum, " a core of belief and action that lends coherence to the concept. Further, some scholars, while acknowledging that progressivism had some conservative and even reactionary results, argue that the motives behind many of the reform movements of the era were genuinely democratic.

1. Which of the following most accurately describes the organization of the passage?
  - A. A theory is proposed, refuted, and then amended.
  - B. The thesis of the passage is stated and several views for and against that thesis are compared and contrasted.
  - C. Opposing views are presented, classified, and then reconciled.
  - D. An assertion is made and an elaboration of that assertion is provided.
  - E. An argument is advanced and evidence is presented to refute it.



2. According to the passage, the term “progressive minimum” is used by scholars who have
  - A. determined the quintessential elements of reform movements in general
  - B. claimed that progressivism was a movement grounded in a set of common beliefs
  - C. underrated the impact and historical significance of progressivism
  - D. defined progressivism as a unified effort led by a core of proponents
  - E. questioned the basic motivation underlying the inception of progressivism
3. The primary purpose of the passage is to
  - A. analyze the early-twentieth-century sociopolitical environment of the United States
  - B. affirm the profound differences among reformist groups contending for power in the early-twentieth-century United States
  - C. explain a radical approach to promoting democracy in the early twentieth-century United States
  - D. argue that the results achieved by several decades of reform activity begun in the early-twentieth-century United States were paradoxical
  - E. trace the course of inquiry over time regarding an aspect of early twentieth-century United States history

#### Passage 194

Native American music is unique in the world in having almost no string instruments. The fretless, single-string violin of Mexico’s Seri Indians is therefore often remarked on in studies of Native American music. Most scholars assume that the Seri violin descended from the European violin. The Spanish introduced a variety of string instruments to Mexico following the conquest (1519), and these subsequently spread widely in many forms. However, Helen Roberts questions other scholars’ arguments that Mexican string instruments could not have preconquest origins simply because they are not mentioned by early Spanish sources and do not appear in indigenous Mexican illustrations. **Roberts argues that because of their low volume, string instruments would not have been used in loud group contexts such as those depicted in Mexican manuscripts.**

1. It can be inferred from the passage that the view held by most scholars regarding the origins of the Seri violin is based in part on
  - A. differences between the Seri violin and European violins
  - B. the rarity of string instruments among Native American peoples
  - C. the fact that the Seri violin lacks frets and has only a single string
  - D. a resemblance between the Seri violin and Spanish string instruments of the sixteenth century
  - E. the means by which string instruments spread in Mexico following the conquest
2. The passage suggests that in Roberts’ view, the Seri violin
  - A. may be represented in Mexican manuscripts that have yet to be found
  - B. was probably modeled on string instruments introduced to Mexico by the Spanish
  - C. was not likely to have been in use prior to the Spanish conquest of Mexico
  - D. was best suited for playing in relatively quiet settings
  - E. was probably capable of greater volume than most scholars have assumed
3. Which of the following best describes the purpose of the highlighted sentence in the passage as a whole?
  - A. It introduces an alternative to a widely held view.
  - B. It casts doubt on a point made in the first sentence of the passage.
  - C. It explains why scholars disagree about a particular issue.
  - D. It cites evidence overlooked by scholars previously mentioned in the passage.
  - E. It suggests a reason for the assumption mentioned in the preceding sentence.

#### Passage 195

After the identification of three of the main macronutrients that plants need to grow -- nitrogen, phosphorus, and potassium (N-P-K) -- and the development of manufactured nitrogen fertilizer in the 1910s, agricultural soils began receiving large doses of N-P-K but little else. Early agronomists overlooked the importance of biological activity provided by the underground ecosystem of soil

microbes, earthworms, and Mycorrhizal fungi. Chemical fertilizers such as N-P-K depress this activity, increasing plants' vulnerability to pests and diseases. They might also diminish crops' nutritional quality, which has declined substantially since the widespread adoption of chemical fertilizers. Some researchers attribute this decline to the condition of the soil; others cite the tendency of modern plant breeding to select for characteristics such as yield rather than nutritional quality.

1. According to the passage, which of the following typically distinguishes soil nourished exclusively by N-P-K fertilizers from unfertilized soils?
  - A. Lower average yields
  - B. Higher earthworm populations
  - C. Slower crop growth
  - D. Less microbial activity
  - E. Increased resistance to pests
2. The author of the passage would most likely agree that the widespread use of N-P-K fertilizers
  - A. has encouraged plant breeders to select for yield rather than other characteristics
  - B. caused early agronomists to ignore the importance of biological activity in soils
  - C. has diverted attention away from the nutritional value of crops
  - D. spurred attempts to reproduce the effect of microbial activity in the soil
  - E. has resulted in plants that are less hardy

### Passage 196

Meltzoff and Moore reported experiments showing that human newborns possess the ability to imitate certain facial expressions, such as a protruding tongue or an open mouth. Yet numerous researchers challenge Meltzoff's interpretation that such neonatal imitation is the origin of later imitation, which appears at approximately eight to twelve months of age. These researchers point out that the neonatal imitative response disappears or is lessened at approximately two months. Moreover, since in follow-up studies only one type of imitative response toward a facial expression (that is, tongue protrusion) was observed, some researchers assert that neonatal imitation is not imitation at all but may simply be a form of exploratory behavior in response to interesting stimuli.

1. The passage implies which of the following about the experimental results reported by Meltzoff and Moore?
  - A. They were, at best, only partially borne out by subsequent studies.
  - B. They cast doubt on the validity of a particular claim about newborns.
  - C. They formed the basis for revised interpretations of other behaviors of newborns.
  - D. They derived from a methodology that turned out to be flawed.
  - E. They challenged the distinction between imitative and nonimitative behavior in newborns
2. According to the passage, those who challenge "Meltzoff's interpretation" do so on the basis that it
  - A. implies inaccurate predictions
  - B. lacks testable consequences
  - C. assumes a discredited theory
  - D. leaves an unexplained gap
  - E. involves circular reasoning

### Passage 197

In "The Franklin's Tale," from Chaucer's fourteenth-century *Canterbury Tales*—, a Clerk uses medieval astronomical tables, calculating lunar and solar positions, to predict an extraordinarily high flood tide. Literary scholar Phyllis Hodgson has concluded that Chaucer's purpose here is artistic, not scientific, and that even though Chaucer was a master of astronomy and author of an astrolabe treatise, this "highly technical account of the Clerk's astrological calculations need not be taken too seriously." Recently, however, astronomer Don Olson concluded that Chaucer's account actually describes a very rare astronomical configuration of the Sun, Moon, and Earth that produced an exceptionally high tide in December 1340. But why would Chaucer be aware of a high tide that

occurred in 1340, some five decades before “The Franklin’s Tale” was written. Some scholars place Chaucer’s birth in late 1340 or early 1341. When Chaucer was studying astronomy during the 1380s and 1390s, it is plausible that he investigated his own horoscope. Chaucer may have discovered the remarkable tide-raising configuration in 1340 while calculating celestial positions at the time of his own birth and then used this knowledge as inspiration for the plot device in “The Franklin’s Tale.”

1. Which of the following statements regarding medieval astronomers can be inferred from the passage?
  - A. They were skeptical of the idea that certain astronomical configurations could produce high flood tides.
  - B. They had an understanding of the effect of the Sun and Moon on ocean tides.
  - C. They could calculate lunar positions with some accuracy, but not the positions of the Sun and Earth.
  - D. Although they were highly skilled in celestial calculations, they were unlikely to apply this knowledge to predictions of events on Earth.
  - E. They possessed the mathematical skills for performing only the simplest of astronomical calculations.
2. It can be inferred that Hodgson would agree with which of the following statements about the Clerk’s astronomical calculations?
  - A. The Clerk’s calculations do not add artistic merit to “The Franklin’s Tale.”
  - B. Chaucer’s purpose in describing the Clerk’s calculations is to instruct readers in the rudiments of astronomy.
  - C. Chaucer’s intent in using technical material was not to provide a scientifically valid discussion.
  - D. The Clerk’s ability to predict a high flood tide is implausible, given the level of scientific knowledge in the late fourteenth century.
  - E. The technical language that Chaucer uses in describing the calculations does not reflect the scientific terminology of the time.
3. The primary purpose of the passage is to
  - A. explain how fourteenth-century astronomers used complicated astronomical calculations to predict unusually high tides
  - B. show how medieval and modern methods predict similar effects of astronomical configurations on tides
  - C. argue that modern literary scholars should take Chaucer’s scientific references throughout The Canterbury Tales more seriously
  - D. describe Chaucer’s fascination with astronomy in general and with horoscopes in particular
  - E. present an explanation that supports the scientific veracity of a particular passage in The Canterbury Tales

### Passage 198

In 1876 Edmond Duranty dubbed the style of emerging French impressionist artists “The New Painting.” More than a style, the Impressionists’ luminous landscapes were regarded as a new way of seeing. Of course, it was not wholly new. **The English painters Constable and Turner, whose work French artists knew, had already painted out of doors earlier in the century and brilliantly sought to capture the impact of natural scenes on their sensibility.** Courbet’s tough-minded realism and Jongkind’s harbor scenes also had much to teach the emergent movement. The Impressionists never denied this ancestry; but they were aware, too, that they had taken these painters’ unconventional experiments to unfamiliar levels and, consolidating themselves as a movement, had indeed made painting new.

1. Which of the following best describes the function of the highlighted sentence?
  - A. It provides support for an assertion made previously in the passage.
  - B. It undermines a claim made earlier in the passage.
  - C. It questions the usefulness of categorizing artists into particular movements\*.
  - D. It identifies painters whose works were praised by some Impressionists.
  - E. It suggests that painting out of doors was unusual during the early 1800s.
2. The passage suggests that the impact of Impressionism can be attributed in part to

- A. Duranty's enthusiastic promotion of the movement
- B. the moribund state of painting when Impressionists first presented their works
- C. the widespread popularity in France of works by Courbet and Jongkind
- D. a lack of earlier examples of outdoor painting
- E. the solidarity of its practitioners

### Passage 199

Shaping book demonstrates that contrary to a widely held belief, industrial research has not invariably been more regimented than academic science. He argues that the intellectual freedom historically available to industrial scientists during the twentieth century has been underestimated. Many companies, recognizing that the results of scientific investigation were necessarily uncertain and that profits, if any, might take years to materialize, granted scientists considerable latitude to develop their ideas and follow them in unexpected directions. Some companies even provided senior scientists with free time to pursue their own research interests, whatever they might be. Consequently, some scientists were drawn to industrial research not primarily because of the generally good financial compensation but because they saw industry as the best place to do cutting-edge research.

1. The passage's discussion of "free time" suggests that
  - A. senior scientists in industry have been less likely than junior scientists to remain in positions where opportunities to conduct their own research are restricted
  - B. scientists who work in industry can gain financially from their own independent research as well as from research they conduct for their companies
  - C. scientists who work in industry have tended to become frustrated by their employers' expectations that their research will be restricted to areas deemed to be in the employers' interests
  - D. industry has sometimes been willing to support scientific research that has no prospect of yielding a direct profit
  - E. industrial scientists have not differed from academic scientists in the amount of time they are able to dedicate to pure research
2. It can be inferred that those who hold the "belief mentioned in the passage would be most likely to agree with which of the following statements about scientists?
  - A. Scientists who conduct research in university settings have generally been less motivated than researchers employed in industry to pursue scientific inquiries solely for the sake of advancing knowledge.
  - B. Scientists have not been primarily motivated by financial considerations in choosing among different professional settings in which to conduct their research.
  - C. Scientists employed by for-profit companies have always tended to have their research restricted by their companies' interests.
  - D. Scientists have tended to be less concerned about the regimentation of industrial research than nonscientists generally assume.
  - E. Scientists should be more skeptical than they generally have been about the reliability of research conducted by for-profit companies.
3. The author of the passage mentions companies' recognition that "the results of scientific investigation were necessarily uncertain" primarily in order to
  - A. suggest that industrial scientists often faced a different set of challenges than did academic scientists
  - B. present a premise that motivated some companies' policies regarding their scientists' research
  - C. explain how companies calculated possible future profits from research undertaken by their scientists
  - D. refute a common assumption about the costs associated with industrial research relative to the costs of academic research
  - E. explain how the expectations of scientists conducting industrial research differed from those of scientists conducting academic research

### Passage 200

Certain practices common in the early United States make it easy for historians to underestimate the extent of American women's paid labor. Under the legal principle called coverture, married women had no legally recognized economic existence apart from their husbands and could not receive wages for their work. Records of payments for outwork (work performed in the home on a piece-rate basis) show male names as wage recipients. One has to look in the columns recording the amount of work completed to see that female names are listed as producers. Furthermore, most wage laborers were paid partly in goods and received cash wages only quarterly or once or twice a year. The infrequency of such payments has sometimes made it difficult for historians to recognize them as wages.

1. The passage suggests which of the following about records of payments for outwork?
  - A. They have only recently received attention from historians\*
  - B. They could easily be misinterpreted by historians.
  - C. They have frequently been overlooked by historians.
  - D. They show a discrepancy between the amount of men's and women's wages.
  - E. They fail to reflect the infrequency of payments for completed work.
2. According to the passage, payments to wage laborers in the early United States were
  - A. usually lower for outwork than for other kinds of wage labor
  - B. consistently higher for male workers than for female workers
  - C. paid to male workers at more frequent intervals than to female workers
  - D. often paid partly in forms other than cash
  - E. often not recorded by employers

### Passage 201

Bat studies in Indiana between 1961 and 1993 recorded bat roost locations. All of the roosts of evening bats were in buildings. Consequently, the fact that all evening bats radio-tracked since 1993 have roosted in trees was notable. The building roosts may have been the result of spillover from large populations of evening bats in the woods along rivers, where, prior to 1993, scientific data were not collected. The building roosts may also indicate that this species had adapted well to human structures. However, the disappearance after 1993 of previously known roosts in buildings suggests that this adaptation became less successful. Big brown bat populations have been increasing in Indiana, and perhaps evening bats do not compete successfully with them for roosts in buildings.

1. The author mentions the fact that evening bats radio-tracked since 1993 have roosted in trees primarily in order to
  - A. account for a puzzling aspect of evening bat behavior mentioned earlier in the passage
  - B. introduce evidence that indicates a change in evening bat behavior discussed later in the passage
  - C. undermine a theory about evening bat behavior presented earlier in the passage
  - D. provide a contrast between evening bat behavior and big brown bat behavior
  - E. provide an example of evening bat behavior that fits well-established scientific views of the species
2. According to the passage, the disappearance after 1993 of known evening bat roosts in buildings suggests which of the following?
  - A. After 1993 evening bats in Indiana were less likely to live near rivers,
  - B. Humans and their structures became increasingly threatening after 1993.
  - C. The spillover of large bat populations from woods near rivers increased after 1993.
  - D. Evening bats in Indiana inhabited the roosts previously used by big brown bats.
  - E. In Indiana, evening bats' adaptation to buildings was ultimately undermined by other factors.

### Passage 202

Witnesses to a meteor in Australia in 1978 claimed to have heard strange noises as it streaked overhead. Yet, given that the meteor was 30 kilometers up, if these sounds had come directly from the

meteor, people on the ground could not have heard them until almost a minute after the meteor had disappeared. Physicist Colin Keay hypothesized that the light given off by a meteor's trail must be accompanied by invisible electromagnetic radiation in the form of very low frequency (VLF) radio waves. Such waves, which travel at the speed of light, would reach the observer when the meteor itself came into view.

Subsequent experiments in a soundproof chamber showed that many things can act as transducers to convert VLF waves into audible vibrations. Aluminum foil, thin wires, pine needles, or dry hair all responded to a VLF field. VLF waves induce small charges in such objects, thereby causing them to vibrate in time with the waves' oscillation. **This transducer effect would explain why some people heard the noises while others close by heard nothing.** Those who heard sounds were simply nearer to transducers. It could also explain why attempts to record meteor sounds have failed: scientists carefully place their microphones away from possible sources of interference.

1. Which of the following best describes the function of the highlighted sentence?
  - A. It explains why observers who were looking at the meteor would be the only ones who could hear the sounds made as it went overhead.
  - B. It explains why the witnesses' claims could not be verified by scientific experts.
  - C. It shows that Keay's hypothesis provides the correct explanation of the sounds heard by observers of the meteor.
  - D. It suggests that Keay's hypothesis is capable of explaining an important aspect of the witnesses' observations.
  - E. It suggests that Keay's hypothesis is able to explain how observers can see a fast-moving meteor.
2. The passage suggests that Keay formulated his hypothesis in response to
  - A. scientists' failure to record meteor sounds
  - B. an inference based on the speed of sound in the atmosphere
  - C. measurements of the strength and wavelength of electromagnetic radiation from a meteor's trail
  - D. the fact that observers who heard meteor sounds were close to objects that could act as transducers of VLF waves
  - E. experiments in a soundproof chamber to determine what objects would transduce VLF waves into audible vibrations
3. It can be inferred from the passage that if Keay's proposed explanation of meteor sounds is correct, it is true that
  - A. meteors themselves produce no audible vibrations, even though the meteor does cause the sounds that observers hear
  - B. when an observer hears the sounds, it is his or her own hair that is causing the audible vibrations
  - C. if two observers in widely separated locations hear sounds caused by the same meteor, the audible vibrations that reach the observers are produced by different objects
  - D. visible light and VLF radio waves are the only forms of electromagnetic radiation that are given off by a meteor's trail
  - E. atmospheric conditions, such as clouds, that made a meteor invisible to observers on the ground would also prevent those observers from hearing any sounds caused by that meteor

### Passage 203

Larvae of many marine invertebrate species delay their metamorphosis into juveniles when cues signaling an appropriate juvenile environment are absent, thereby increasing their likelihood of thriving as juveniles and of ultimately reaching adulthood. Nevertheless, delayed metamorphosis has potential costs for juveniles, including reduced growth and increased mortality. Nearly all evidence of such costs involves species whose larvae do not feed but rather subsist on stored nutrients, indicating that insufficient energy reserves may be an underlying cause of these costs. Supporting this hypothesis are laboratory studies showing that in a certain bryozoan, the prolonged larval swimming that results from delayed metamorphosis is associated with size reductions in the juvenile feeding organ (the lophophore) and that one factor influencing the size of juveniles of certain barnacle species is how long larvae delay metamorphosis. However, other studies show that while significantly fewer juvenile *Capitella* worms survived to adulthood when metamorphosis had been delayed, prolonged larval swimming had no significant effect on juvenile size, suggesting, perhaps, that in some species, factors other than insufficient energy reserves account for the negative effects of the larval stresses that result from delayed metamorphosis.

1. The passage suggests that the “bryozoan,” the “barnacle species,” and “Capitella worms” all share which of the following characteristics?
  - A. The larvae of these species do not feed but rather subsist on stored nutrients.
  - B. The larvae of these species are unable to undergo metamorphosis if larval swimming is significantly prolonged.
  - C. The larvae of these species do not have enough energy to meet their needs when metamorphosis is delayed.
  - D. The juveniles of these species manifest the negative effects of delayed metamorphosis as a decrease in size.
  - E. The juveniles of these species are not significantly larger than their respective larvae.
2. The “hypothesis” implies that compared to marine invertebrate larvae that subsist on stored nutrients, marine invertebrate larvae that feed are less likely to
  - A. exhibit prolonged larval swimming as a result of delayed metamorphosis
  - B. experience negative effects as a result of delayed metamorphosis
  - C. thrive as juveniles in environments inappropriate for juveniles
  - D. delay metamorphosis in the absence of appropriate environmental cues
  - E. delay metamorphosis for an extended period of time
3. The passage is primarily concerned with
  - A. weighing the relative benefits and costs of delayed metamorphosis
  - B. illustrating the range of costs that can result from delayed metamorphosis
  - C. speculating on why the costs of delayed metamorphosis have gone unrecognized
  - D. discussing a possible explanation of the costs of delayed metamorphosis
  - E. debunking the notion that the costs of delayed metamorphosis are negligible

#### Passage 204

The presence of work themes in the painting of the Impressionist movement of the late nineteenth and early twentieth centuries has until recently been largely discounted, despite the body of Impressionist works that continued the **tradition**, initiated by Courbet and Millet and developed through the 1880s by Breton, Bastien-Lepage, Pissaro, and Berthe Morisot, of representing rural labor, and notwithstanding the significant body of Impressionist work—including that of Degas, Caillebotte, and Morisot—representing urban or suburban labor. The notion of Impressionism as concerned primarily with the representation of leisure has less to do, however, with the subject matter of the paintings than with the acceptance of the view, widely held in nineteenth-century France, that considered peasants performing physically demanding rural labor as the epitome of work. The numerous Impressionist representations of activities (often those of women) that we might classify as work—a woman serving beer in a cafe, many paintings by Degas of the ballet (a physically demanding activity by any standard)—were instead classified as representations of leisure by those who held this view.

1. The primary purpose of the passage is to
  - A. propose a new theory about the techniques used to represent work themes in Impressionist painting
  - B. expand the meaning of the term “work” as it applies to painting
  - C. note that work themes were often overlooked in Impressionist painting and suggest a reason why
  - D. provide insight into why certain activities were not considered work in the late nineteenth century
  - E. provide specific examples of rural work themes in Impressionist painting and explain the significance of such themes
2. The “tradition” refers to the
  - A. view that work themes are of little importance in Impressionist painting
  - B. representation of leisure
  - C. representation of urban and suburban labor
  - D. representation of rural labor
  - E. works of Degas, Caillebotte, and Morisot
3. With which of the following statements about Impressionist painting would the author of the passage be most likely to agree?
  - A. The view that Impressionist painting is concerned primarily with themes of leisure is based in part on a limited definition of what constitutes work.

- B. Many Impressionist paintings once regarded as representing work themes are now viewed as being concerned primarily with the representation of leisure.
- C. Most of the Impressionist paintings that treat work themes depict activities representing urban and suburban labor.
- D. Although themes of work appear frequently in Impressionist paintings, these themes are limited to the traditional representations of work as rural physical labor.
- E. Notwithstanding the large body of Impressionist painting in which work themes are present, the notion that Impressionist paintings are primarily about leisure activities is essentially correct.

### Passage 205

Few central Asian textiles from the Timurid period (1370-1526 C. E.) have survived to be dated. However, scholars have long assumed that Timurid rugs with geometric patterns were replaced in royal courts by floral-patterned rugs only at the end of the 1400s, under the influence of the painter Behzad (circa 1455-circa 1536). Nevertheless, the presence of floral-patterned rugs in court scenes from two paintings in a 1440s Timurid manuscript suggests that floral-patterned rugs were already being used at that time. **Whether the occasional presence of geometric rugs in similar paintings after the 1440s means the tradition of weaving rugs with geometric patterns also continued, or whether here the painters simply followed a well-established formula, is still an open question.**

1. According to the passage, after the 1440s, Timurid paintings of court scenes
  - A. generally followed well-established formulas
  - B. are more likely to have survived than Timurid textiles
  - C. were greatly influenced by the painter Behzad
  - D. are frequently found in Timurid manuscripts
  - E. sometimes showed rugs with geometric patterns
2. The passage implies which of the following about the introduction of floral-patterned rugs in Timurid royal courts?
  - A. It explains the absence of any surviving geometric-patterned rugs.
  - B. It predates any influence wielded by the painter Behzad.
  - C. It occurred earlier than scholars have long thought.
3. Which of the following statements best describes the function of the highlighted sentence in the context of the passage as a whole?
  - A. It notes a fact about Timurid rugs, that explains why they have been the subject of scholarly controversy.
  - B. It emphasizes the fragility of central Asian textiles from the period in question,
  - C. It situates Timurid rugs within the wider context of textile arts from the same period.
  - D. It suggests why the author is relying upon indirect evidence for the dating of trends in Timurid rugs.
  - E. It describes a constraint on the study of Timurid rugs that the author thinks has been overemphasized.
4. In the context in which it appears “formula” most nearly means
  - A. fact
  - B. symbol
  - C. ritual
  - D. maxim
  - E. recipe

### Passage 206

Many scholars have argued that government investment in manufacturing in the southern United States during the Second World War spurred a regional economic boom that lasted into the postwar period. **But much of this investment went to specialized plants, many of them unsuitable for**



**postwar production.** Large-scale, wartime government funding led to a massive increase in the number and scale of munitions facilities. By the war's end, 216 munitions establishment costing more than \$3.5 billion had been built, many of them located in the south. Indeed, according to one estimate, more than 70 percent of federally financed manufacturing construction capital in Alabama, Arkansas, Mississippi, and Tennessee went into munitions plants.

Even in the northern regions with strong prewar manufacturing economics, these plants were difficult to deal with once the imperative of war had been removed. In the south few industrialists had the capacity or desire to transform these factories to a peacetime function. Accordingly, at war's end almost all of the southern munitions facilities were shut down, placed on standby, operated at a very low capacity, or converted to nonmanufacturing functions, usually storage. Although some reopened a few years later for use during the Korean War, the impact of the special plants on the South's postwar economy was marginal at best.

1. The primary purpose of the passage is to
  - A. propose an alternative explanation
  - B. challenge a widely held position
  - C. contrast two views of a phenomenon
  - D. explain why a particular claim has been influential
  - E. evaluate evidence used to support a particular view

For the following question, consider each of the choices separately and select all that apply.

2. According to the passage, some southern munitions plants built in the South during the Second World War were
  - A. later reopened and used once more as munitions plants
  - B. used for nonmanufacturing purposes after the war
  - C. originally envisioned as continuing to manufacture munitions at high capacity even after the war had ended
3. In the passage, the mention of "Alabama, Arkansas, Mississippi, and Tennessee" serves primarily to
  - A. suggest that some states were better than others at anticipating postwar economic needs
  - B. identify evidence used to support a view held by scholars mentioned at the beginning of the passage
  - C. suggest that federal investment in some kinds of manufacturing was excessive
  - D. identify the states that received the largest allocations of federal funds
  - E. provide information to support a point about the nature of government investment made earlier in the paragraph
4. In the highlighted portion of the passage, the author notes that plants were "specialized" primarily in order to
  - A. support a claim about the way in which wartime imperatives determined the amount of government investment in southern manufacturing
  - B. suggest that the federal government's investments in southern manufacturing during the Second world war were largely ineffective
  - C. identify a factor that limited the impact of wartime government investment on the postwar southern economy
  - D. contrast the kinds of manufacturing facilities built in southern states during the Second world war with those built in northern states
  - E. challenge a claim about the reasons for government investment in southern manufacturing during the Second world war
5. The author implies which of the following about the manufacturing facilities built in southern states during the Second world war?
  - A. They tended to be less well-suited to conversion to peacetime purposes than were manufacturing facilities built in northern states.
  - B. They had a greater impact on the wartime economies of Alabama, Arkansas, Mississippi, and Tennessee than on those of other southern states.
  - C. They temporarily allowed the southern states to surpass the northern states in creating manufacturing jobs.
  - D. Few of them continued to serve their original functions during the postwar period.
  - E. Some of them operated at a very low capacity during as well as after the war.
6. It can be inferred that the author of the passage would disagree with the "scholars" mentioned in the

first sentence about which of the following?

- A. The extent to which the postwar southern economy benefited from the wartime investment of federal funds
- B. The effect of government investment on construction of manufacturing plants in southern states during the Second world war
- C. The extent to which government-funded manufacturing facilities in the South actually benefited the United states effort to win the Second world war
- D. Whether southern munitions plants built during the Second world war were converted to nonmanufacturing functions after the war
- E. Whether government investment in manufacturing in southern states during the Second world war exceeded private investment there

### Passage 207

Scholars have tended to treat the ideas of American social reformer Jane Addams as unique, failing to compare them sufficiently with those of other social activists and public intellectuals. Recent work, however, has situated her more thoroughly in the thinking and events of her time. For example, labor historians have usefully contextualized Addams' close work with labor unions in the 1890s. When Addams' interest in the workers' reform agenda is understood in relation to **the history of trade unionism in Chicago** and its impressive record of political action, her contribution emerges as far more cooperative than groundbreaking. Workers influenced her in ways not preciously appreciated.

1. The primary purpose of the passage is to
  - A. criticize Addams for not realizing the extent of her debt to other social activists and public intellectuals
  - B. describe how scholars have misunderstood Addams' ideas regarding social reform
  - C. outline a debate within the historical community regarding Addams' approach to social reform
  - D. emphasize the importance of placing Addams' work in a larger framework of reform and activism
  - E. discuss the impact of Addams' close work with labor union on working conditions in the 1890s
2. The author refers to the "history of trade unionism in Chicago" primarily as
  - A. an issue that has been largely ignored by historians
  - B. an issue that has inspired contention among historians
  - C. a model for how trade unionists might engage in political action

### Passage 208

In the late 1990s, the Mars Global Surveyor spacecraft detected magnetized patches of terrain near the north pole of Mars and also in the Terra Sirenum region, which is in the planet's southern hemisphere. These magnetic features may be relics of a global magnetic field in the vicinity of several huge, ancient craters in the Terra Sirenum region, astronomers believe these craters were formed some 3.8 billion years ago from the impact of **chunks of debris** pelting **the inner solar system**, where Mars orbits the Sun. If a global magnetic field once existed on Mars, it must have vanished before these craters formed. Such large impacts beat rock to temperatures well above 600 degrees Celsius—high enough to erase any magnetic field that metallic particle within the rock strong at the time the craters formed, it

would have realigned and remagnetized the articles as they cooled. **The Surveyor findings thus suggest the magnetic field vanished early in the planet's 4.5 billion year existence.**

1 According to the passage, astronomers believe which of the following about the “chunks of debris”?

- A. They may have destroyed a global magnetic field that once existed on Mars.
- B. They affected Mars more substantially than other planet in the inner solar system.
- C. Some of them contained a higher concentration of metallic particles than did rocks on Mars.
- D. Some of them caused craters that exist in the Terra Sirenum region of Mars.
- E. Few of them were large enough to cause impacts that would heat rocks to 600 degrees Celsius.

2. The author's conclusion in the final sentence of the passage is based in part on which of the following points?

- A. Elsewhere on Mars there are likely to be patches of magnetized terrain similar to those that the Mars Global Surveyor detected.
- B. Planets other than Mars could have been affected by the chunks of debris that pelted the inner solar system 3.0 billion years ago.
- C. A global magnetic field on Mars could have remagnetized metallic particles that had lost their magnetic field.
- D. Not all collisions between debris chunks and planets result in the formation of craters.
- E. Impacts much smaller than the ones that probably created the craters in the Terra Sirenum region do not heat rocks to temperatures above 600 degrees Celsius.

3. The author of the passage mentions the “inner solar system” in the course of

- A. explaining how Mars may have acquired a global magnetic field
- B. explaining how scientists estimate the probable age of Mars
- C. accounting for the size and location of magnetized patches of terrain detected on Mars
- D. casting doubt on one possible explanation for the disappearance of a global magnetic field on Mars
- E. relating how features of the surfaces

## Passage 209

In general, naive individuals appear more likely to learn from interaction with familiar rather than unfamiliar members of their species. Kaveliers and colleagues (2005) reported that naive laboratory-bred deer mice showed greater social learning of defensive responses to biting flies after observing responses of familiar members than after observing responses of unfamiliar members. **Earlier, Valsecchi and colleagues (1996) reported striking differences in social learning of food preferences among Mongolian gerbils, depending on whether they were exposed to familiar or unfamiliar demonstrators.** At the time, this was unexpected because **Gaief and colleagues (1984)** had previously reported no familiarity effect in Norway rats on social learning of food preferences. However, Gaief et al (1998) subsequently uncovered a significant familiarity effect that was evident when demonstrators are some hours before interacting with observers but absent when demonstrators are immediately before interacting.

1. Which of the following can be inferred about the report by Gaief and colleagues (1984) as it is described in the passage?

- A. It introduced a concept that the report by Kaveliers and colleagues was intended to clarify.
- B. It highlighted an inaccuracy in the report by Valsecchi and colleagues
- C. It led to an incorrect supposition on the part of some scientists
- D. It played an important role in developing an understanding of social learning between members of different species.
- E. It suggested that the familiarity effect is stronger in some species than in others.

### Passage 210

Most feminist labor historians believe that the emergence and rapid general adoption of industrial unionism in the late 1930s was essential for the success of efforts to organize large numbers of women workers into unions. They argue that industrial unionism's commitment to recruiting unskilled workers and its abandonment of racial and gender exclusiveness was more attractive to women workers (who, according to these scholars, were largely unskilled) than was the earlier exclusionary craft-union model. The successful organization of women garment workers in the 1910s does not undermine this dominant view, since the garment unions welcomed women workers of every skill level, prefiguring the industrial form of unionism.

1. According to the author, the successful organization of women garment workers is consistent with the dominant view of women labor history because
  - A. garment unions concentrated their recruitment efforts exclusively on attracting unskilled workers as members
  - B. those women garment workers who joined the garment unions were not as skilled as those who refused to join
  - C. garment unions accepted both skilled and unskilled workers as members
  - D. garment unions lacked exclusionary racial rules as well as rules barring unskilled workers
  - E. most garment workers were relatively skilled craft workers rather than unskilled workers

### Passage 211

Setting conservation objectives often mixes scientific knowledge with political feasibility in such a way that one cannot tell where the science stops and the political pragmatism takes over. For example, Tear found that for endangered species with recovery plans, over a quarter of the plans set quantitative recovery objectives at or below the species' existing population size or number of populations. Most likely these objectives were so low because they were politically palatable. Another possible explanation for such modest recovery objectives is what is known as the shifting-baseline syndrome. In this scenario, successive generations of wildlife managers use as their baseline the conditions they experienced at the start of their careers, resulting in lower expectations with each new generation.

1. In the context in which it appears, "modest" most nearly means
  - A. conventional
  - B. appropriate
  - C. unpretentious
  - D. diffident
  - E. unambitious
2. According to the passage, the "shifting-baseline syndrome" is a result of which of the following?
  - A. Modest recovery objectives determined by political pragmatism
  - B. The difficulty of determining existing population size and number of populations for endangered species
  - C. Changes in the criteria that are used in determining whether a given quantitative objective has been met
  - D. Each new generation of wildlife managers using recent conditions to set numerical baselines for wildlife populations
  - E. The way that hopes for recovery of endangered species populations color the expectations of successive generations of wildlife managers

### Passage 212

Harriet Martineau's *Illustrations of Political Economy*, a series of didactic novellas about industrialists and workers that were immensely popular upon their publication (1832-1834), are considered the first industrial novels. But instead of foregrounding suffering individuals, as other industrial novels do, they champion the impersonal economic laws that determine individuals' behavior. Martineau's explicit aim is to convince her readers of the truth of the principles laid out by such economic philosophers as Thomas Malthus. Yet the novellas' embrace of predetermined truths blunts their narrative force. Their claim to be "illustrations," in which stories of human choice serve only to make vivid an abstract law, contravenes the relation in most realist fiction between abstract law and lived experience, in which the former is found inadequate to explain the latter.

1. Which of the following can be inferred from the passage about industrial novels written after Martineau's *Illustrations of Political Economy* ?
  - A. They drew on the same subject matter as *Illustrations of Political Economy* but approached that subject matter with a different emphasis.
  - B. They were written by authors who aimed to capitalize on the popularity of *Illustrations of Political Economy*.
  - C. They differed from *Illustrations of Political Economy* in that they were more directly concerned with abstract economic laws than with the experiences of individuals.
  - D. They were more popular with readers than were *Illustrations of Political Economy* .
  - E. They differed from *Illustrations of Political Economy* in that they tended to present industrialists more sympathetically than workers.
2. The author of the passage mentions Thomas Malthus primarily to
  - A. cite a feature of Martineau's writing that makes it particularly vivid
  - B. clarify a poorly understood aspect of Martineau's fiction
  - C. explain Martineau's intentions in writing *Illustrations of Political Economy*
  - D. contrast Martineau's fiction with the writings of economic philosophers
  - E. help account for the popularity of Martineau's *Illustrations of Political Economy*

### Passage 213

Nielsen is aware that for many readers, including the anthologists who create textbooks, African American literature is thought to be primarily realistic in style and sociological or political in content. Avant-garde expressions—beyond the obvious examples offered by Langston Hughes, Amiri Baraka, and Ishmael Reed—are frequently overlooked. While such a narrow view is more readily apparent in critical attention given to fiction than in that given to poetry, it certainly skews anthologies. Nielsen is acutely aware of the serious political motives that often underlie such compilations and is also concerned that the currently popular critical paradigm of an oral tradition might deflect proper attention due African American literary traditions.

1. The passage suggests that compared with critical writing on African American fiction, critical writing on African American poetry
  - A. is more often driven by serious political motives
  - B. is more influenced by currently popular critical paradigms
  - C. draws clearer distinctions between oral and literary traditions
  - D. acknowledges a broader range of style and content
  - E. focuses more on the sociological implications of the works discussed
2. The passage suggests that Nielsen has which of the following concerns regarding anthologies of African American literature?
  - A. That the anthologies overlook the work of the important avant-garde writers Langston Hughes, Amiri Baraka, and Ishmael Reed
  - B. That the anthologies focus on a particular type of literature at the expense of other types
  - C. That the anthologies give insufficient attention to the oral tradition in African American literature

### Passage 214

We take for granted that island populations must have a continental origin, and not the other way around. The number of islands that acquire their biota [i.e., plant and animal life] from a larger source supports this notion. There is, however, no fundamental mechanism in the equilibrium theory of island biogeography to preclude island species from colonizing the mainland. The belief in one-way biogeographic traffic has only begun to erode as phylogenetic analyses have revealed island origins for continental rodents and lizards. Among plants, the genus *Exostema* has successfully diversified in the continental Neotropics, while two populations in the angiosperm genus *Erithalis* have colonized Florida. At least two Neotropical bat lineages can be added to the growing list of island-to-continent colonizers.

1. According to the passage, which of the following is true of the “equilibrium theory”?
  - A. It implies that very few island populations are able to colonize continental areas.
  - B. It can accommodate two-way biogeographic traffic between islands and mainlands.
  - C. It necessarily assumes that island species originate on continents.
  - D. It has been undermined recently by phylogenetic analyses.
  - E. It questions the distinction between island and continental populations.
2. Select the sentence that presents a presupposition.

### Passage 215

The temperance movement, aimed at combating alcohol use, comprised the largest women’s movement and the largest group of women orators in nineteenth-century America. While the sheer quantity of material these women produced justifies critical attention, their importance is by no means solely quantitative. Although they lacked formal rhetorical training, these women exhibited an exceptional understanding of language use within their cultural context and demonstrated remarkably effective rhetorical strategies in relation to their own purposes and the audiences they addressed. Despite the success that temperance activists had in creating change, twentieth-century feminists tended to focus on the suffrage movement as women’s only significant political act, an oversight that has resulted in a distortion of women’s participation in the political process.

1. In the context in which it appears, “critical” most nearly means
  - A. urgent
  - B. censorious
  - C. judgmental
  - D. scholarly
  - E. crucial
2. The passage suggests which of the following about the temperance movement’s audiences?
  - A. They were usually composed exclusively of women.
  - B. They were often persuaded by the speeches they heard by women temperance orators.
  - C. They were typically hostile to the idea of outlawing the use of alcohol.
  - D. They were more numerous in the beginning of the nineteenth century than they were at its end.
  - E. They were drawn largely from the same population as the audiences for women’s suffrage groups.

### Passage 216

Writings by Renaissance artists are often prized for the light they can shed on artists’ lives and personalities. Despite their nearly equal life spans and impressive artistic output, Michelangelo, whose surviving writings are copious, is accessible in a way that Donatello is not. Other artists now less appreciated for their oeuvres, such as Cennino Cennini, are of greater value to modern historians for their written than for their painted output. The great paradox, however, is Leonardo da Vinci, who left thousands of pages of writing. These texts have been categorized for study, segmenting his body of writings into smaller groupings on subjects such as painting, science, anatomy, optics, and engineering. Yet despite the exhaustive application of this

method, Leonardo, as an individual, remains thoroughly obscure.

1. The author introduces the subject of Leonardo da Vinci primarily in order to
  - A. note an exception to the usefulness of a particular approach to studying Renaissance artists
  - B. emphasize the difficulty of interpreting the writings of Renaissance artists
  - C. vindicate a particular approach to interpreting the work of Renaissance artists
  - D. cite an artist whose writings have attracted particularly keen scholarly interest
  - E. cast doubt on a particular assumption about the relationship of biography and painting
2. Which of the following best characterizes the function of the highlighted sentence?
  - A. It acknowledges an important exception to a particular generalization.
  - B. It helps to account for a scholarly tendency mentioned earlier in the passage.
  - C. It contrasts two kinds of evidence used in the study of Renaissance artists.
  - D. It provides an illustration of a point articulated in the preceding sentence.
  - E. It notes an important distinction between the reputations of two Renaissance artists.

### Passage 217

Arctic sea ice belongs to two categories. Seasonal ice freezes in winter and then dissolves in summer, while perennial ice perseveres year-round. To the untrained eye, all sea ice looks the same, but by licking it, one can evaluate how long a specific piece has been floating round. When ice starts to form in seawater, it drives out salt, which has no position in the crystal structure. As the ice gets thicker, the rejected salt collects in small pockets of brine too greatly concentrated to freeze. A piece of first-year ice will taste salty. Finally, if the ice survives, these pockets of brine drain out through fine, veinlike channels, and the ice becomes fresher; multiyear ice can even be dissolved and drunk.

For the following question, consider each of the choices separately and select all that apply.

1. The passage mentions which of the following as being a feature of seasonal ice?
  - A. It is similar in appearance to perennial ice.
  - B. It is typically filled with fine, veinlike channels.
  - C. It tastes saltier than perennial ice.
2. In the context in which it appears, “fine” most nearly means
  - A. acceptable
  - B. elegant
  - C. precise
  - D. pure
  - E. small

### Passage 218

The novel *Georges*, published under Alexander Dumas’ name, may actually have been written by Felicien Mallefille. A comparison of *Georges* with well-known Dumas novels such as *The Count of Monte Cristo* suggests that Dumas had little to do with *Georges*. For example, *Georges*’ characters are tiresomely earnest, while those from Dumas’ well-known novels crack jokes and utter colorful oaths. Meanwhile, in a technical sense, *Georges* is well-written, while *The Count of Monte Cristo*, with all its verve and sparkle, is full of redundancies, repetitions, and non sequiturs. As Umberto Eco discovered while attempting to translate *The Count of Monte Cristo*, the charm of Dumas’ novel and its “narrative wisdom” are inseparable from its “linguistically sludgy and gasping” prose.

1. The author of the passage would be most likely to agree with which of the following statements about Dumas as a novelist?
  - A. His use of non sequiturs detracts from the stylistic verve of his writing.
  - B. His use of repetition has been overrated as effective novelistic technique.
  - C. His reliance on humor results in one-dimensional characters.
  - D. His novels, while technically well written, have predictable plots.
  - E. His writing displays narrative skill despite certain technical flaws.

2. According to the passage, which of the following is true regarding the novel *Georges*?
- A. Its authorship was widely questioned soon after its publication.
  - B. Its characters are less interesting than those in most Dumas novels.
  - C. It is marred by redundancies, repetitions, and non sequiturs.
  - D. It presents unusual problems for translators.
  - E. It has often been compared favorably to *The Count of Monte Cristo*

### Passage 219

While studying different-sized ant colonies, Cole discovered that when there were only a few ants in the space provided, each individual exhibited a chaotic pattern of activity and rest. As the density of the colony increased by the addition of more ants, Cole observed a sudden transition to dynamic order: patterns of activity and rest over the colony as a whole suddenly changed from chaotic to rhythmic. Why should the density of ants play an apparently crucial role in the transition from chaotic to ordered behavior? Ants interact with one another, and an active ant encountering an inactive one will stimulate the latter into movement. At low densities there are few encounters, but at higher densities activity can spread like a contagion through the colony. Consider each of the choices separately and select all that apply.

1. According to the passage, which of the following statements about ant interactions is true?
- A. The interaction between active and inactive ants leads to a change in the inactive ant's behavior.
  - B. When the density of an ant colony is low, there are relatively few interactions between ants.
  - C. When there are many ants in an ant colony, the perceived lack of space often leads ants to inactivity.
2. In the context in which it appears, "ordered" most nearly means
- A. prepared
  - B. prearranged
  - C. regular
  - D. peaceful
  - E. restricted

### Passage 220

In November 1753, the British author Sarah Fielding received half the payment for her novel *The Cry* and asked that the other half, when due, go to her "or to whomsoever I shall appoint," probably implying that the remaining share was purposed for someone else. In fact, many believe that the novel was a collaborative venture between Fielding and Jane Collier. This specific collaboration was likely enough, as the two were close friends with similar interests. They wrote jointly authored letters, were both published authors with a lively interest in each other's work, and were passionate supporters of didacticism and innovation in fiction—core concerns of *The Cry*. However, contemporaries accredit the work solely to Fielding, and there is nothing in the novel that is incompatible with Fielding's other writings.

For the following question, consider each of the choices separately and select all that apply.

1. The passage presents which of the following as evidence in favor of Fielding and Collier's having collaborated in writing *The Cry*?
- A. Their friendship
  - B. Their joint authorship of correspondence
  - C. Their approach to fiction
2. It can be inferred that the author of the passage would agree with which of the following claims about *The Cry*?
- A. It develops themes commonly found in published works.
  - B. It reflects an interest in the purposes to which fiction may be put.
  - C. It contains elements that are incompatible with any of Collier's solo writings.
  - D. It shows that the extent of Collier and Fielding's shared interests was not as wide as is generally



thought.

E. Parts of it were written jointly by Fielding and Collier.

### Passage 221

The Moon once had a magnetic field, and Mars shows evidence of having had one early in its history, but neither object currently possess a magnetic field. But Mercury, which is halfway in size between the Moon and Mars, has an active and relatively strong magnetic field. Planetary scientists think that planets require a liquid core to sustain such a field, but the smaller the planet, the faster it cools. Mercury, by all right, should have a core as cold and dead as the Moon's, yet the magnetic field persists. This may result from the presence of elements like sulfur that, when mixed with iron, lower the melting point and keep the core molten.

1. The primary basis for the author's use of the expression "by all right" is Mercury's

- A. size
- B. early history
- C. temperature
- D. magnetic field
- E. chemical composition

2. In the context in which it appears, "dead" most nearly means

- A. latent
- B. inert
- C. dormant
- D. deceased
- E. obsolete

### Passage 222

Experts have disagreed about where the genus *Varanus* (monitor lizards) derived. Since most existing species live in Australia, early researchers believed that *Varanus* originated in Australia and subsequently island hopped westward along the Indo-Australian archipelago. Herpetologist Robert Mertens later argued that *Varanus* possibly originated in the archipelago. Chromosomal analysis has since supported Mertens' contention, and additionally, geologic evidence refers to a crash between the archipelago and the Australian landmass after *Varanus* originated—a fact that could account for the genus' present distribution.

A relevant puzzle for scientists is the current distribution of *Varanus*' largest surviving species, the Komodo dragon. These carnivores inhabited only on four small islands in the archipelago where, scientists note, the prey base is too small to support mammalian carnivores. But the Komodo dragon has recently been revealed to control body temperature much more efficiently than do mammalian carnivores, enabling it to survive on about a tenth of the food energy demanded by a mammalian carnivore of comparable size.

1. It can be inferred from the passage that the geographical distribution of the Komodo dragon is

- A. currently less restricted than it was at the time researchers first began investigating the origins of the genus *Varanus*
- B. currently more restricted than it was at the time researchers first began investigating the origins of the genus *Varanus*
- C. less restricted than is the distribution of the genus *Varanus* as a whole
- D. more restricted than is the distribution of the genus *Varanus* as a whole
- E. viewed as evidence in favor of the hypothesis that the genus *Varanus* originated in the Indo-Australian archipelago

2. Which of the following elements in the debate over the origin of *Varanus* is NOT provided in the passage?

- A. The evidence that led Mertens to argue that *Varanus* originated in the Indo-Australian archipelago
- B. The evidence that led early researchers to argue that *Varanus* originated in Australia
- C. A possible explanation of how *Varanus* might have spread to the Indo-Australian archipelago if it

had originated in Australia

D. A possible explanation of how Varanus might have spread to Australia if it had originated in the Indo-Australian archipelago

E. An indication of the general present-day distribution of Varanus species between Australia and the Indo-Australian archipelago

3. It can be inferred that which of the following is true of the “geologic evidence” ?

A. It was first noted by Mertens as evidence in favor of his theory about the origins of Varanus.

B. It cannot rule out either one of the theories about the origins of Varanus discussed in the passage.

C. It accounts for the present distribution of the Komodo dragon.

D. It has led to renewed interest in the debate over the origins of Varanus.

E. It confirms the conclusions reached by early researchers concerning the origins of Varanus.

### Passage 223

For *Temnothorax* ants in search of suitable rock crevices for new nest sites, size is an important consideration, and certain behaviors suggest how scouts might compare the size of several sites. After entering a crevice, scouts invariably exit and reenter. During their first inspection, they mark their route with their personal pheromones. (Experiments have shown that workers can distinguish their own pheromones from those of nest mates.) Some researchers believe that these ants are counting the frequency of intersections between their two exploratory trails. The smaller the area, the more likely they are to cross a spot twice. The observation that *Temnothorax* scouts always pave out a path of the same length on their first visit to sites strongly supports this hypothesis.

1. In light of the claim made by the “researchers”, it can be inferred that ants’ ability to distinguish their

A. own pheromones from those of nest mates is important primarily because ants would otherwise be unable to tell whether potential mating sites were occupied by related colonies.

B. the ability aids in the assignment of specific tracks such as scouting for new nests, among the various members of a nest.

C. ants who could not distinguish their own personal pheromones would be unable to tell if they had previously embraced a site

D. pheromone differentiation is essential to account evaluation of potential nesting sites

E. pheromone differentiation is essential to ants’ ability to evaluate the size of crevices before entering them

2. Which of the following best describe the function of the highlighted portion of the passage?

A. It clarifies the relationship between the scout ants’ behavior and the quality of a potential nesting site.

B. It offers a hypothesis to explain why ants make only two trips through each potential nesting site

C. It attempts to reconcile the behavior of scout ants with the nesting locations eventually chosen by their colonies

D. It challenges the conclusion of researchers about scout ants’ specific behavior

E. It undermines observations of former experiments about *Temnothorax* ant’s ability to distinguish pheromones

### Passage 224

If a supernova (the explosion of a massive star) triggered star formation from dense clouds of gas and dust, and if the most massive star to be formed from the cloud evolved into a supernova and triggered a new round of star formation, and so on, then a chain of star-forming regions would result. If many such chains were created in a differentially rotating galaxy, the distribution of stars would resemble the observed distribution in a spiral galaxy.

This line of reasoning underlies an exciting new theory of spiral-galaxy structure. A computer simulation based on this theory has reproduced the appearance of many spiral galaxies without assuming an underlying density wave, the hallmark of the most widely accepted theory of the largescale

structure of spiral galaxies. That theory maintains that a density wave of spiral form sweeps through the central plane of a galaxy, compressing clouds of gas and dust, which collapse into stars that form a spiral pattern.

1. The primary purpose of the passage is to
  - A. describe what results when a supernova triggers the creation of chains of star-forming regions
  - B. propose a modification in the most widely accepted theory of spiral-galaxy structure
  - C. compare and contrast the roles of clouds of gas and dust in two theories of spiral-galaxy structure
  - D. describe a new theory of spiral-galaxy structure and contrast it with the most widely accepted theory
  - E. describe a new theory of spiral-galaxy structure and discuss a reason why it is inferior to the most widely accepted theory
2. The passage implies that, according to the new theory of spiral-galaxy structure, a spiral galaxy can be created by supernovas when the supernovas are
  - A. producing an underlying density wave
  - B. affected by a density wave of spiral form
  - C. distributed in a spiral pattern
  - D. located in the central plane of a galaxy
  - E. located in a differentially rotating galaxy
3. Which of the following, if true, would most discredit the new theory as described in the passage?
  - A. The exact mechanism by which a star becomes a supernova is not yet completely known and may even differ for different stars.
  - B. Chains of star-forming regions like those postulated in the new theory have been observed in the vicinity of dense clouds of gas and dust.
  - C. The most massive stars formed from supernova explosions are unlikely to evolve into supernovas.
  - D. Computer simulations of supernovas provide a poor picture of what occurs just before a supernova explosion.
  - E. A density wave cannot compress clouds of gas and dust to a density high enough to create a star.

### Passage 225

In the mid-seventeenth century, some Native Americans in colonial New England started to keep and manage livestock for the first time, doing so according to their own cultural priorities and interests. Several factors influenced their decision to keep animals, including threats to their land base and to the productivity of their hunting. It might appear that animal husbandry as practiced by Europeans would have posed an insurmountable sociocultural challenge for Indians. Scholars studying the issue have argued that livestock would have compromised the mobility needed for winter hunting, destroyed crops, competed with wild game for resources, and violated prevailing conceptions of property and of human-animal interconnectedness. Such obstacles were indeed difficult, but creative ways to overcome them were found.

1. Which of the following best describes the primary function of the highlighted sentence?
  - A. It identifies an atypical scholarly viewpoint regarding Native Americans and animal husbandry.
  - B. It helps to explain why animal husbandry was not adopted by more Native Americans in colonial New England.
  - C. It points out some of the typical misconceptions that scholars have regarding Native Americans in colonial New England.
  - D. It identifies factors that ultimately transformed the Native American way of life.
  - E. It identifies certain challenges that practicing animal husbandry posed for Native Americans in colonial New England.

Consider each of the choices separately and select all that apply.

2. It can be inferred that the author would agree with which of the following statements about animal husbandry by Native Americans in colonial New England?
  - A. Its adoption required some cultural adjustment by Native American societies.
  - B. Its influence eventually led to changes in the husbandry practices used by Europeans in the regions.

C. It may have allowed those who adopted it to compensate, in whole or in part, for reduced hunting yields.

### Passage 226

Analyzing the physics of dance can add fundamentally to a dancer's skill. Although dancers seldom see themselves totally in physical terms—as body mass moving through space under the influence of well-known forces and obeying physical laws—neither can they afford to ignore the physics of movement. For example, no matter how much a dancer wishes to leap off the floor and then start turning, the law of conservation of angular momentum absolutely prevents such a movement.

Some movements involving primarily vertical or horizontal motions of the body as a whole, in which rotations can be ignored, can be studied using simple equations of linear motion in three dimensions. However, rotational motions require more complex approaches that involve analyses of the way the body's mass is distributed, the axes of rotation involved in different types of movement, and the sources of the forces that produce the rotational movement.

1. The author mentions all of the following as contributing to an understanding of the physics of dance EXCEPT
  - A. the law of conservation of angular momentum
  - B. analyses of the way in which the body's mass is distributed
  - C. equations of linear motion in three dimensions
  - D. analyses of the sources that produce rotational motions
  - E. the technical terms for movements such as leaps and turns
2. Analysis of which of the following would require the kind of complex approach described in the last sentence?
  - A. A long leap across space
  - B. A short jump upward with a return to the same place
  - C. A sustained and controlled turn in place
  - D. Short, rapid steps forward and then backward without turning
  - E. Quick side steps in a diagonal line

### Passage 227

The most believable justification for higher taxes on automobile fuel is that fuel consumption diminishes the environment and thus increases the costs of traffic congestion. But the fact that burning fuel generates these “negative externalities” does not indicate that no tax on fuel could ever be too high. Economics is accurate about the tax that should, in principle, be levied to cope with negative externalities: the tax on a liter of fuel should equal the harm resulted from using a liter of fuel. If the tax is more than that, its costs (including the inconvenience to those who would rather have used their cars) will exceed its benefits (including any reduction in congestion and pollution).

1. In the last sentence, “exceed” most closely means
  - A. outstrip
  - B. magnify
  - C. delimit
  - D. offset
  - E. supplant
2. Which of the following best features the function of the indicated portion of the passage?
  - A. It restates a point made earlier in the passage.
  - B. It provides the evidence on which a theory is based.
  - C. It presents a specific application of a general principle.

- D. It summarizes a justification with which the author disagrees.
- E. It suggests that the benefits of a particular strategy have been overestimated.

### Passage 228

Only since the Second World War has graphic design been categorized as a field worth knowing about and preserving, and most design collections have been narrowly defined. There are few extant archives of advertisements, some design collections include only political posters by established artists, other collections focus on such specific historical documents as election posters. Rigidly defined collections like these can foster pigeonholed concepts of design history. In contrast, Merrill Berman's ambitious reach as a collector- one that includes avantgraphics, anonymous political posters, and commercial advertisements- preserves graphics in a wide range to show how graphic designs pervade a culture, not in isolation from one another but all mixed together part of the daily inundation of meanings and visual stimulation.

1. Which of the following best describes the function of the highlight sentence
  - A. It offers a critique of the design collections referenced in the preceding sentence
  - B. It questions the motivation behind Berman's graphic design collection
  - C. It illustrates why graphic design was not viewed as an important field of study before the Second World War
  - D. It identifies an understanding of design history that informed Berman's early career
  - E. It supports an argument against Berman's eclectic approach to collecting

### Passage 229

During the early nineteenth century, the demand for ever-louder sound led to ever-increasing tension on piano strings, making evident the need for stronger framing. Sooner or later, long after factories had taken over the manufacture of other commodities, the Industrial Revolution nevertheless shaped the attitudes of those who decided whether to accept this innovation. To build pianos with steam-powered tools was one thing, to put a cast-iron frame at the center of the instrument, making the product itself a modern factory of sound rather than a fully handcrafted artwork, in wood, was quite another. The resulting debate was vigorous, with many feeling certain that iron in the piano would ruin the tone.

Consider each of the choices separately and select all that apply.

1. Which of the following statements about the development of the piano can be inferred from the passage?
  - A. Pianos continued to be made by artisans well into the nineteenth century.
  - B. The use of steam-powered tools in piano making led to a decline in tone quality.
  - C. Prior to the Industrial Revolution, the framing in piano was made entirely of wood.
2. In the context in which it appears, "tone" most exactly means
  - A. interval
  - B. mood
  - C. timbre
  - D. pitch
  - E. shade

### Passage 230

During the 1920s, most proponents of scientific management, Frederick Taylor's approach for maximizing workers' productivity by intensively routinizing their jobs, antagonized the five-day workweek. Despite scientific managers conceding that decreasing hours might supply an incentive to workers, in practice they more often utilized pay differentials to encourage higher productivity. Those reformers who wanted to accept both scientific management and reduced hours had to make a greatly negative case, depicting the latter as an antidote to the rigors of the former. In

conflict to the scientific managers, Henry Ford stated that shorter hours caused larger productivity and profits. However, few employers matched either Ford's vision or his particular interest in mass marketing a product—automobiles—that requested leisure for its use, and few unions succeeded in saving shorter hours through bargaining. At its 1928 convention, the American Federation of Labor (AFL) boasted of approaching 165,000 members working five-day, 40-hour weeks. But even though this represented an raise of about 75,000 since 1926, about 70 percent of the entire came from five enormously well-organized building trades' unions.

1. The passage is primarily concerned with discussing which of the following?
  - A. The relative merits of two points of view regarding a controversy
  - B. The potential benefits to workers in the 1920s of a change in employers' policies
  - C. The reasons for a labor-management disagreement during the 1920s
  - D. The status of a contested labor issue during the 1920s
  - E. The role of labor unions in bringing about a reform
2. It can be inferred that the author of the passage mentions "automobiles" primarily to suggest that
  - A. Ford's business produced greater profits than did businesses requiring a workweek longer than five days
  - B. Ford, unlike most other employers, encouraged his employees to use the products they produced
  - C. Ford may have advocated shorter hours because of the particular nature of his business
  - D. unions were more likely to negotiate for shorter hours in some businesses than in others
  - E. automobile workers' unions were more effective than other unions in securing a five-day workweek
3. It can be inferred that the author of the passage would probably agree with which of the following claims about the boast highlighted?
  - A. It is based on a mistaken estimation of the number of AFL workers who were allowed to work a five-day, 40-hour week in 1928.
  - B. It could create a mistaken impression regarding the number of unions obtaining a five-day, 40-hour week during the 1920s.
  - C. It exaggerates the extent of the increase between 1926 and 1928 in AFL members working a five-day, 40-hour week.
  - D. It overestimates the bargaining prowess of the AFL building trades' unions during the 1920s.
  - E. It is based on an overestimation of the number of union members in the AFL in 1928.
4. According to the passage, the "reformers" claimed that
  - A. neither scientific management nor reduced hours would result in an improvement in the working conditions of most workers
  - B. the impact that the routinization of work had on workers could be mitigated by a reduction in the length of their workweek
  - C. there was an inherent tension between the principles of scientific management and a commitment to reduced workweeks
  - D. scientific managers were more likely than other managers to use pay differentials to encourage higher productivity
  - E. reducing the length of the workweek would increase productivity more effectively than would increases in pay

### Passage 231

Unlike the static, classically composed portraits produced by her mentor Walker Evans, twentiethcentury

New York photographer Helen Levitt's photographs seem candid and spontaneous.

Whereas Evans' subjects look directly into the camera, so that photographer and subject conspire in the making of a portrait, Levitt's subjects seem caught unawares. As a "street" photographer, before the term's invention, Levitt has claimed to have attempted to capture life as she found it. But there is a paradox to her technique. Her off-the-cuff aesthetic seemingly guarantees objectivity, since she was recording street scenes she happened upon, yet her photographs could be said to be highly subjective, to be reflections of Levitt's own distinctive preoccupations and ways of seeing. Unlike Evans' images, Levitt's are solely the products of the photographer without the conscious participation of their subjects. The repetitions evident in Levitt's choices of subjects, for example, her many photographs of children in masks and disguises, reveal more about Levitt herself than

about those subjects.

1. According to the passage, which of the following appears to ensure the objectivity of Levitt's photographs?
  - A. She took photographs in public places rather than in a studio.
  - B. She was not personally acquainted with the subjects of her photographs.
  - C. She did not arrange the scenes or pose the subjects she photographed.
  - D. She avoided using classical principles of composition.
  - E. She was guided by her subjects' preoccupations rather than by her own.
2. The passage asserts which of the following about Evans' portrait photographs?
  - A. Evans' photographs indicate a conscious rejection of the approaches associated with street photography.
  - B. The subjects in an Evans' photograph become collaborators in the portrait's creation.
  - C. Evans' photographic portraits usually reveal more about Evans than they do about his subjects.
  - D. Evans' static, classically composed portraits reveal Evans' preoccupation with maintaining an appearance of objectivity.
  - E. Evans' static, classically composed portraits reveal little about his distinctive way of seeing.
3. The passage suggests which of the following about street photography?
  - A. It characteristically depicts groups of people rather than individual subjects.
  - B. It tends to depict a narrow and repetitious range of subject matter.
  - C. It creates the impression of spontaneity but often actually involves scenes contrived by the photographer.
  - D. Its early practitioners were not accorded much recognition for their aesthetic achievements.
  - E. It had not been named as such when Levitt began practicing this kind of photography.

### Passage 232

United State women won the vote in 1920 after decades of campaigning. Yet, the impact on women's status was more limited than women's rights activists had anticipated. Women were granted suffrage at a historical point when voting was no longer a significant political activity for many Americans. In the mid-nineteenth century, when women first sought suffrage rights, voter turnout rates were unprecedentedly high, elections in much of the country very competitive, and political parties important. But when women finally received the vote in 1920, electoral politics was largely noncompetitive, with virtual one-party rule in many areas, and voter turnout had slipped to its all-time low. Nonetheless, the vote still mattered enough for women to seek it and for conservatives to try to restrict its availability.

1. The author of the passage discusses voter turnout rates primarily in order to
  - A. confirm an assumption about the impact of women suffrage on united states electoral politics
  - B. explain a significant change in American political life that occurred over the course of the campaign for woman suffrage
  - C. account for changes in the importance of political parties between the mid-nineteenth and early twentieth centuries.
  - D. Identify a reason elections were less competitive after 1920 than they had been in earlier decades.
  - E. Illustrate a point about the importance of political parties in the mid-nineteenth century
2. The author of the passage mentions conservatives in the highlighted sentence primarily in order to
  - A. account for long lag between the beginning of the woman suffrage movement and the achievement of voting rights for women
  - B. suggest that political parties had a larger role in opposing woman suffrage than has sometimes been acknowledged
  - C. confirm that the attaining of woman suffrage was politically important in spite of a national devaluation of voting
  - D. identify a reason that the granting of voting rights to women had less political impact than women's rights activists hoped
  - E. argue that women's votes had a greater impact on United States electoral politics than was previously believed.

### Passage 233

Some studies have shown that red-backed salamanders (RBS) are scarce in areas with acidic soils and that those present in such conditions have smaller-than-average bodies. Explanations have included the possibility that young RBS are adversely affected by acidic soil, that adult RBS can sense and may avoid acidic soil conditions, or that loss of RBS prey populations due to acidic soil could result in reduced RBS populations. Yet researchers found fairly high densities of large-bodied RBS at Lake Claire Watershed, where soil conditions are acidic. One hypothesis is that intraspecific geographical variation in acidity tolerance (i.e., local adaptation to an acidic environment) could exist for RBS. Previous studies showed potential local adaptation of some salamander species to acidity.

1. Which of the following can be inferred about the studies mentioned in the highlighted portion of the passage?
  - A. They may have undercounted RBS in their study areas due to faulty methodology.
  - B. They focused less on adult RBS than on RBS in the early stages of their development.
  - C. They found evidence that acidic conditions adversely affect the prey on which RBS depend.
  - D. They drew unsubstantiated conclusions about the possible adverse effects of acidic conditions on RBS.
  - E. They were conducted in areas where the soil conditions were similar to those at Lake Claire Watershed.
2. The primary purpose of the passage is to
  - A. cite evidence that appears to contradict a widely held assumption
  - B. present contrasting interpretations of a particular research finding
  - C. explain how a particular environmental change can produce diverse outcomes
  - D. note an unexpected finding and summarize new possible explanation for it
  - E. identify a correlation and explain why one hypothesis about it is more persuasive than others

### Passage 234

Federal courts in the United States, especially before the famous 1962 case of *Baker v. Carr*, were often thought to be powerless in the area of election law, voting rights, and other legal questions clearly bearing on politics. This perception was not entirely correct, of course, as pre-1962 Supreme Court decisions such as that in the case of *Smith v. Allwright* demonstrated in the wake of that decision, voting participation among African Americans in the South increased substantially. However, political rights had not always been so clearly championed by the Supreme Court as they were in *Smith v. Allwright*. Indeed, the transformations between the Civil War and 1962 were such that, in reviewing voters' rights cases over the intervening decades, one feels like an archaeologist cutting through distinct layers in which the judicial decisions uncovered reveal a pattern of ideological and societal change.

1. The author of the passage uses the analogy of the archaeology most probably in order to
  - A. contrast judicial decisions made after 1962 concerning voters rights with decision made immediately after the Civil War
  - B. suggest that the author is perplexed by many judicial decisions regarding voters' rights
  - C. characterize the nature of change in judicial thinking regarding voters' rights
  - D. indicate that much of the history of voters' rights has been lost since the Civil War
  - E. illustrate the lack of concern for voters' rights exhibited by federal courts before the Civil War
2. Which of the following can be inferred regarding the case of *Baker v. Carr*?
  - A. Its outcome required clarification in subsequent decisions rendered by the Supreme Court.
  - B. Its resolution attested to the power of federal courts to address legal issues related to politics.
  - C. It marked a radical change in judicial thinking in the United States.
  - D. It was decided before the Supreme Courts heard the case of *Smith v. Allwright*.
  - E. It has little historical significance aside from its focus on laws affecting politics.



### Passage 235

In *A Fine Brush on Ivory*, his appreciation of novelist Jane Austen, Richard Jenkins remarks that in Austen scholarship, there are pressures that cause ordinary critical circumspection to break down. Principal among those pressures is the peculiar affection in which the person of Jane Austen is held by many readers. This affection is not altogether explained by admiration for her genius, nor is it entirely a symptom of nostalgia for her orderly, decorous, even mysterious life. Writers have led critics to approach her work in mostly biographical or historical ways, often in defiance of other critical fashions, especially the various formal approaches that have dominated modern literary criticism.

Consider each of the choices separately and select all that apply.

1. According to the passage, critics approach Jane Austen's work in biographical or historical ways for which of the following reasons?

- A. They find her work particularly well suited to biographical and historical readings.
- B. They are unsatisfied with the formal approaches that have dominated modern literary criticism.
- C. They feel the need to know the baffling writer personally.

2. In the context in which it appears, "appreciation of" most nearly means

- A. gratitude toward
- B. awareness of
- C. appraisal of
- D. esteem for
- E. grasp of

### Passage 236

Findings in biological anthropology suggest that Native Americans' ancestors probably came to the Americas from northeastern Asia. Turner, for example, has studied the dentition of prehistoric and living Native Americans and northeastern Asians. Based on approximately twenty dental traits, including tooth-crown shape and number of roots, he has defined an overall dental pattern called Sinodonty, which includes three-rooted lower first molars and shovel-shaped incisors. This distinctive pattern is shared among most Native Americans and people from northeastern Asia, but is not found in people who originated in southern Asia, Africa, or Europe. Another less complex pattern—Sundadonty—is shared among the people of southeastern Asia and is also found in prehistoric American populations, but Turner believes that widespread Sinodonty demonstrates most Native Americans' northeastern Asian origins.

Consider each of the choices separately and select all that apply.

1. The passage implies that Turner's conclusion regarding the origins of most Native American populations is based in part on which of the following findings?

- A. The presence of Sundadonty among prehistoric American populations
- B. The prevalence of shovel-shaped incisors among Native Americans
- C. The absence of Sinodonty among people from southern Asia, Africa, and Europe.

Consider each of the choices separately and select all that apply.

2. According to the passage, Sinodonty and Sundadonty differ from one another in that Sinodonty

- A. has been found among prehistoric Native American populations, while Sundadonty has not.
- B. is a more complex dental pattern than Sundadonty is
- C. occurs frequently in modern Native American populations, while Sundadonty does not.



## 长文章

### Passage 1

*Mary Barton*, particularly in its early chapters, is a moving response to the suffering of the industrial worker in the England of the 1840s. What is most impressive about the book is the intense and painstaking effort made by the author, Elizabeth Gaskell, to convey the experience of everyday life in working class homes. Her method is partly documentary in nature: the novel includes such features as a carefully annotated reproduction of dialect, the exact details of food prices in an account of a tea party, an itemized description of the furniture of the Bartons' living room, and a transcription (again annotated) of the ballad "The Oldham Weaver". The interest of this record is considerable, even though the method has a slightly distancing effect.

As a member of the middle class, Gaskell could hardly help approaching working-class life as an outside observer and a reporter, and the reader of the novel is always conscious of this fact. But there is genuine imaginative re-creation in her accounts of the walk in Green Heys Fields, of tea at the Bartons' house, and of John Barton and his friend's discovery of the starving family in the cellar in the chapter "Poverty and Death." Indeed, for a similarly convincing re-creation of such families' emotions and responses (which are more crucial than the material details on which the mere reporter is apt to concentrate), the English novel had to wait 60 years for the early writing of D. H. Lawrence. If Gaskell never quite conveys the sense of full participation that would completely authenticate this aspect of *Mary Bartons*, she still brings to these scenes an intuitive recognition of feelings that has its own sufficient conviction.

The chapter "Old Alice's History" brilliantly dramatizes the situation of that early generation of workers brought from the villages and the countryside to the urban industrial centers. The account of Job Leigh, the weaver and naturalist who is devoted to the study of biology, vividly embodies one kind of response to an urban industrial environment: an affinity for living things that hardens, by its very contrast with its environment, into a kind of crankiness. The early chapters—about factory workers walking out in spring into Green Heys Fields, about Alice Wilson, remembering in her cellar the twig-gathering for brooms in the native village that she will never again see, about Job Leigh, intent on his impaled insects—capture the characteristic responses of a generation to **the new and crushing experience of industrialism**. The other early chapters eloquently portray the development of the instinctive cooperation with each other that was already becoming an important tradition among workers.

1. It can be inferred from examples given in the last paragraph of the passage that which of the following was part of "the new and crushing experience of industrialism" for many members of the English working class in the nineteenth century.

- A. Extortionate food prices
- B. Geographical displacement
- C. Hazardous working conditions
- D. Alienation from fellow workers
- E. Dissolution of family ties

2. It can be inferred that the author of the passage believes that *Mary Barton* might have been an even better novel if Gaskell

- A. concentrated on the emotions of a single character
- B. made no attempt to re-create experiences of which she had no firsthand knowledge
- C. made no attempt to reproduce working-class dialects
- D. grown up in an industrial city
- E. managed to transcend her position as an outsider

3. Which of the following best describes the author's attitude toward Gaskell's use of the method of documentary record in *Mary Barton*?

- A. uncritical enthusiasm
- B. Unresolved ambivalence
- C. Qualified approval
- D. Resigned acceptance
- E. Mild irritation

4. Which of the following is most closely analogous to Job Leigh in *Mary Barton*, as that character is described in the passage?

- A. An entomologist who collected butterflies as a child
- B. A small-town attorney whose hobby is nature photography
- C. A young man who leaves his family's dairy farm to start his own business
- D. A city dweller who raises exotic plants on the roof of his apartment building
- E. A union organizer who works in a textile mill under dangerous conditions

## Passage 2

Although, recent years have seen substantial reductions in noxious pollutants from individual motor vehicles, the number of such vehicles has been steadily increasing. Consequently, more than 100 cities in the United States still have levels of carbon monoxide, particulate matter, and ozone (generated by photochemical reactions with hydrocarbons from vehicle exhaust) that exceed legally established limits. There is a growing realization that the only effective way to achieve further reductions in vehicle emissions—short of a massive shift away from the private automobile—is to replace conventional diesel fuel and gasoline with cleaner-burning fuels such as compressed natural gas, liquefied petroleum gas, ethanol, or methanol.

All of these alternatives are carbon-based fuels whose molecules are smaller and simpler than those of gasoline. These molecules burn more cleanly than gasoline, in part because they have fewer, if any, carbon-carbon bonds, and the hydrocarbons they do emit are less likely to generate ozone. The combustion of larger molecules, which have multiple carbon-carbon bonds, involves a more complex series of reactions. These reactions increase the probability of incomplete combustion and are more likely to release uncombusted and photochemically active hydrocarbon compounds into the atmosphere. On the other hand, alternative fuels do have drawbacks. Compressed natural gas would require that vehicles have a set of heavy fuel tanks—a serious liability in terms of performance and fuel efficiency—and liquefied petroleum gas faces fundamental limits on supply.

Ethanol and methanol, on the other hand, have important advantages over other carbon-based alternative fuels: they have a higher energy content per volume and would require minimal changes in the existing network for distributing motor fuel. Ethanol is commonly used as a gasoline supplement, but it is currently about twice as expensive as methanol, the low cost of which is one of its attractive features. Methanol's most attractive feature, however, is that it can reduce by about 90 percent the vehicle emissions that form ozone, the most serious urban air pollutant.

Like any alternative fuel, methanol has its critics. Yet much of the criticism is based on the use of "gasoline clone" vehicles that do not incorporate even the simplest design improvements that are made possible with the use of methanol. It is true, for example, that a given volume of methanol provides only about one-half of the energy that gasoline and diesel fuel do; other things being equal, the fuel tank would have to be somewhat larger and heavier. However, since methanol-fueled vehicles could be designed to be much more efficient than "gasoline clone" vehicles fueled with methanol, they would need comparatively less fuel. Vehicles incorporating only the simplest of the engine improvements that methanol makes feasible would still contribute to an immediate lessening of urban air pollution.

1. According to the passage, incomplete combustion is more likely to occur with gasoline than with an alternative fuel because

- A. the combustion of gasoline releases photochemically active hydrocarbons
- B. the combustion of gasoline involves an intricate series of reactions
- C. gasoline molecules have a simple molecular structure
- D. gasoline is composed of small molecules.
- E. gasoline is a carbon-based fuel

2. Which of the following most closely parallels the situation described in the first sentence of the passage?

- A. Although a town reduces its public services in order to avoid a tax increase, the town's tax rate exceeds that of other towns in the surrounding area.
- B. Although a state passes strict laws to limit the type of toxic material that can be disposed of in public landfills, illegal dumping continues to increase.
- C. Although a town's citizens reduce their individual use of water, the town's water supplies continue to dwindle because of a steady increase in the total population of the town.
- D. Although a country attempts to increase the sale of domestic goods by adding a tax to the price of imported goods, the sale of imported goods within the country continues to increase.

E. Although a country reduces the speed limit on its national highways, the number of fatalities caused by automobile accidents continues to increase.

3. It can be inferred from the passage that a vehicle specifically designed to use methanol for fuel would

- A. be somewhat lighter in total body weight than a conventional vehicle fueled with gasoline
- B. be more expensive to operate than a conventional vehicle fueled with gasoline
- C. have a larger and more powerful engine than a conventional vehicle fueled with gasoline
- D. have a larger and heavier fuel tank than a “gasoline clone” vehicle fueled with methanol
- E. average more miles per gallon than a “gasoline clone” vehicle fueled with methanol

4. The passage suggests which of the following about air pollution?

- A. Further attempts to reduce emissions from gasoline-fueled vehicles will not help lower urban air-pollution levels.
- B. Attempts to reduce the pollutants that an individual gasoline-fueled vehicle emits have been largely unsuccessful.
- C. Few serious attempts have been made to reduce the amount of pollutants emitted by gasoline-fueled vehicles.
- D. Pollutants emitted by gasoline-fueled vehicles are not the most critical source of urban air pollution.
- E. Reductions in pollutants emitted by individual vehicles have been offset by increases in pollution from sources other than gasoline-fueled vehicles.

### Passage 3

Based on evidence from tree rings, pollen samples and other records, scientists have for a long time assumed that interglacials—warm interludes between ice ages—were as mild and uniform as the Holocene, the present interglacial, has been for all of its 8,000 to 10,000 years. But new research in Greenland has put this assumption into question.

Researchers on two teams, the Greenland Ice-Core Project (GRIP) and the Greenland Ice Sheet Project 2 (GISP2), have analyzed two different cylinders of ice, each about two miles in depth, pulled up from the Greenland ice sheet. Such ice cores trap gases, bits of dust, and other chemicals that were present in the snow that fell over Greenland for thousands of years and then became compressed into ice. By studying these components, scientists have obtained a detailed archive of many aspects of climate, including air temperatures, snowfall, and concentrations of greenhouse gases in the atmosphere.

Findings from the upper sections of the cores have confirmed what scientists already knew: climate during the last ice age fluctuated rapidly. But scientists were astonished by findings from the lower sections of the GRIP core, which provided a close look at an interglacial period other than our own, the Eemian interglacial, a period that lasted from 135,000 to 115,000 years ago. Data from GRIP seem to indicate that the Eemian climate swung at least as wildly as the climate of ice age periods.

Researchers’ clues to the Eemian climate come from measurements of the ratios of two slightly different types of oxygen, isotopes oxygen-16 and oxygen-18, preserved in the GRIP core. These ratios register the fluctuations of air temperatures over the seasons and years. When the air was warm, vapor containing the heavier isotope, oxygen-18, condensed and formed precipitation, in the form of snow, more readily than did vapor containing oxygen-16. Thus, snow that fell during warmer periods contains proportionally more oxygen-18 than snow deposited during cold spells. Evidence of rapid climate shifts was also drawn from other sources, such as measurements of amounts of dust and calcium ions in the ice layers during cold periods: winds were strong, causing calcium-rich dust from loess deposits, which are composed of loose surface sediment, to blow across the ice sheet. Thus, differing amounts of dust in the layers also indicate changing climatic conditions.

However, finds from the lower section of GISP 2 do not confirm those of GRIP. The wild climate swings shown by GRIP in the last interglacial are not seen in the GISP2 core. According to a GISP 2 scientist, the weight of flowing glacial ice above has stressed the lower sections of both cores. This may have deformed the lower ice, disrupting its annual layers and thereby causing the discrepancy between the records. Still, some climatologists believe GRIP’s record may be the more reliable of the two. It was drilled closer to a location called the ice divide, where stresses would have been lower, they say.

1. The passage is primarily concerned with

- A. refuting certain scientific theories about Earth’s climatic history

- B. outlining new findings concerning Earth's climate during ice ages
  - C. discussing new research that may challenge a long-held scientific assumption about Earth's climatic history
  - D. describing the climatic changes that occurred when Earth moved from an ice age into an interglacial period
  - E. reconciling conflicting evidence concerning climatic changes.
2. Which of the following describes research that is most clearly analogous to the testing done by GRIP scientists?
- A. Scientists studying the formation of the Sahara desert measure the rate of topsoil erosion in the region
  - B. Scientists seeking to determine the age of a particular fossil measure the percentage of its carbon atoms that have decayed
  - C. Scientists researching vision in flies measure and compare the amounts of vitamin A found in the retinas of several fly species.
  - D. Scientists investigating the development of life on Earth measure and compare the amount of oxygen used by various organisms along the evolutionary scale.
  - E. Scientists plotting the fluctuations in rainfall in the early rain forests measure the presence of certain gases trapped in tree rings of older trees.
3. According to the passage, which of the following is the most accurate statement of what scientists believed, prior to the GRIP findings, about Earth's climate?
- A. Over the course of Earth's history, interglacials have become progressively milder
  - B. Earth's overall climate has been generally mild since the planet's formation
  - C. During both interglacials and ice ages, Earth's climate has fluctuated violently.
  - D. During ice ages, Earth's climate has been highly variable, whereas during interglacials it has been mild and stable.
  - E. During interglacials, Earth's climate has been highly variable, whereas during ice ages it has been uniformly cold and icy.
4. The passage suggests that which of the following is most likely to have been true of the oxygen-16 and oxygen-18 isotopes found in the lower sections of the GRIP core?
- A. There was significantly more isotope oxygen-18 than isotope oxygen-16 in the ice layers.
  - B. There was significantly more isotope oxygen-16 than isotope oxygen-18 in the ice layers.
  - C. Ratios of isotopes oxygen-18 and oxygen-16 varied in the ice layers.
  - D. Layers containing isotope oxygen-18 placed stress on the layers containing isotope oxygen-16, possibly distorting them.
  - E. Isotope oxygen-16, being lighter, was located mainly in the upper layers, whereas oxygen-18 had settled into the lower layers.

#### Passage 4

Despite winning several prestigious literary awards of the day, when it first appeared, Alice Walker's *The Color Purple* generated critical unease over puzzling aspects of its compositions. In what, as one reviewer put it, was "clearly intended to be a realistic novel," many reviewers perceived violations of the conventions of the realistic novel form, pointing out variously that late in the book, the narrator protagonist Celie and her friends are propelled toward a happy ending with more velocity than credibility, that the letters from Nettie to her sister Celie intrude into the middle of the main action with little motivation or warrant, and that the device of Celie's letters to God is especially unrealistic inasmuch as it forgoes the concretizing details that traditionally have given the epistolary novel (that is, a novel composed of letters) its peculiar verisimilitude: the ruses to enable mailing letters, the cache, and especially the letters received in return.

Indeed, the violations of realistic convention are so flagrant that they might well call into question whether *The Color of Purple* is indeed intended to be a realistic novel, especially since there are indications that at least some of those aspects of the novel regarded by viewers as puzzling may constitutes its links to modes of writing other than Anglo-European nineteenth-century realism. For example, Henry Louis Gates, Jr., has recently located the letters to God within an African American tradition deriving from slave narrative, a tradition in which the act of writing is linked to a powerful deity who "speaks" through scripture and bestows literacy as an act of grace. For Gates, the concern with finding a voice, which he sees as the defining feature of African American literature, links Celie's

letters with certain narrative aspects of Zora Neale Hurston's 1937 novel *Their Eyes Were Watching God*, the acknowledged predecessor of *The Color Purple*.

Gates's paradigm suggests how misleading it may be to assume that mainstream realist criteria are appropriate for evaluating *The Color Purple*. But in his preoccupation with voice as a primary element unifying both the speaking subject and the text as a whole Gates does not elucidate many of the more conventional structural features of Walker's novel. For instance, while the letters from Nettie clearly illustrate Nettie's acquisition of her own voice, Gates's focus on "voice" sheds little light on the *place* that these letters occupy in the narrative or on why the plot takes this sudden jump into geographically and culturally removed surroundings. What is needed is an evaluative paradigm that, rather than obscuring such startling structural features (which may actually be explicitly intended to undermine traditional Anglo-European novelistic conventions), confronts them, thus illuminating the deliberately provocative ways in which *The Color Purple* departs from the traditional models to which it has been compared.

1. The author of the passage would be most likely to agree with which of the following statements about the letters from Nettie to Celie?
  - A. They mark an unintended shift to geographically and culturally removed surroundings
  - B. They may represent a conscious attempt to undermine certain novelistic conventions
  - C. They are more closely connected to the main action of the novel than is at first apparent
  - D. They owe more to the tradition of the slave narrative than do Celie's letters to God
  - E. They illustrate the traditional concretizing details of the epistolary novel form
2. In the second paragraph, the author of the passage is primarily concerned with
  - A. examining the ways in which *The Color Purple* echoes its acknowledged predecessor, *Their Eyes Were Watching God*
  - B. providing an example of a critic who has adequately addressed the structural features of *The Color Purple*
  - C. suggesting that literary models other than the nineteenth-century realistic novel may inform our understanding of *The Color Purple*
  - D. demonstrating the ineffectiveness of a particularly scholarly attempt to suggest an alternative way of evaluating *The Color Purple*
  - E. disputing the perceived notion that *The Color Purple* departs from conventions of the realistic novel form
3. According to the passage, an evaluative paradigm that confronts the startling structural features of *The Color Purple* would accomplish which of the following?
  - A. It would adequately explain why many reviewers of this novel have discerned its connections to the realistic novel tradition
  - B. It would show the ways in which this novel differs from its reputed Anglo-European nineteenth-century models
  - C. It would explicate the overarching role of voice in this novel
  - D. It would address the ways in which this novel echoes the central themes of Hurston's *Their Eyes Are Watching God*
  - E. It would reveal ways in which these structural features serve to parody novelistic conventions
4. The author of the passage suggests that Gates is most like the reviewers mentioned in the first paragraph in which of the following ways?
  - A. He points out discrepancies between *The Color Purple* and other traditional epistolary novels
  - B. He sees the concern with finding a voice as central to both *The Color Purple* and *Their Eyes Are Watching God*
  - C. He assumes that *The Color Purple* is intended to be a novel primarily in the tradition of Anglo-American nineteenth-century realism
  - D. He does not address many of the unsettling structural features of *The Color Purple*
  - E. He recognizes the departure of *The Color Purple* from traditional Anglo-European realistic novel conventions.

## Passage 5

The main exception to primate researchers' general pattern of ignoring interactions between males and infants has been the study of male care among monogamous primates. It has been known for over

200 years, ever since a zoologist-illustrator named George Edwards decided to watch the behavior of pet marmosets in a London garden, that among certain species of New World monkeys males contributed direct care for infants that equaled or exceeded that given by females. Mothers among marmosets and tamarins typically give birth to twins, as often as twice a year, and to ease the female in her staggering reproductive burden the male carries the infant at all times except when the mother is actually suckling it. It was assumed by Kleiman that monogamy and male confidence of paternity were essential to the evolution of such care, and at the same time, it was assumed by Symons and others that monogamy among primates must be fairly rare.

Recent findings, however, make it necessary to reverse this picture. First of all, monogamy among primates turns out to be rather more frequent than previously believed (either obligate or facultive monogamy can be documented for some 17-20 percent of extant primates) and second, male care turns out to be far more extensive than previously thought and not necessarily confined to monogamous species, according to **Hrdy**. Whereas previously, it was assumed that monogamy and male certainty of paternity facilitated the evolution of male care, it now seems **appropriate to consider the alternative possibility**, whether the extraordinary capacity of male primates to look out for the fates of infants did not in some way pre-adapt members of this order for the sort of close, long-term relationships between males and females that, under some ecological circumstances, leads to monogamy! Either scenario could be true. The point is that on the basis of present knowledge there is no reason to view male care as a restricted or specialized phenomenon. In sum, though it remains true that mothers among virtually all primates devote more time and/or energy to rearing infants than do males, males nonetheless play a more varied and critical role in infant survival than is generally realized.

1. The author of the passage mentions the work of Hrdy primarily to
  - A. present an instance of an untenable assumption
  - B. illustrate a consensus by citing a representative claim
  - C. provide evidence that challenges a belief
  - D. highlight a corollary of a widespread view
  - E. offer data that help resolve a debate
2. According to the passage, the evolutionary relationship between male care and monogamy is
  - A. incontestable
  - B. immutable
  - C. uncommon
  - D. immaterial
  - E. uncertain
3. The author of the passage suggests that it is “appropriate to consider the alternative possibility” because the previous view
  - A. results in a contradiction
  - B. depends on problematic data
  - C. appears less definite given certain facts
  - D. conflates two distinct phenomena
  - E. overlooks a causal relationship between correlated phenomena
4. Which of the following statements, if true, would pose the greatest challenge to “the alternative possibility”?
  - A. The number of primate species in which male care of infants is exhibited is greater than the number of primate species that practice monogamy.
  - B. Male care of infants among primates can be seen earlier in the evolutionary record than can monogamy among primates.
  - C. Monogamous relationships among primates can be found in species living in a variety of physical environments.
  - D. Most primate species that practice monogamy do not show any evidence of male care of infants.
  - E. Male care of infants can be observed in some primate species that lack male confidence of paternity.

## Passage 6

“Blues is for singing,” writes folk musicologist Paul Oliver, and “is not a form of folk song that stands up particularly well when written down.” A poet who wants to write blues can attempt to avoid this problem by poeticizing the form—but literary blues tend to read like bad poetry rather



than like refined folk song. For Oliver, the true spirit of the blues inevitably eludes the self-conscious imitator. However, Langston Hughes, the first writer to grapple with these difficulties of blue poetry, in fact succeeded in producing poems that capture the quality of genuine, performed blues while remaining effective as poems. In inventing blues poetry, Hughes solved two problems: first, how to write blues lyrics in such a way that they work on the printed page, and second, how to exploit the blues form poetically without losing all sense of authenticity.

There are many styles of blues, but the distinction of importance to Hughes is between the genres referred to as “folk blues” and “classic blues.” Folk blues and classic blues are distinguished from one another by differences in performers (local talents versus touring professionals), patronage (local community versus mass audience), creation (improvised versus composed), and transmission (oral versus written). It has been a commonplace among critics that Hughes adopted the classic blues as the primary model for his blues poetry, and that he writes his best blues poetry when he tries least to imitate the folk blues. In this view, Hughes’ attempts to imitate the folk blues are too self-conscious, too determined to romanticize the African American experience, too intent on reproducing what he takes to be the quaint humor and naïve simplicity of the folk blues to be successful.

But a more realistic view is that by conveying his perceptions as a folk artist ought to—through an accumulation of details over the span of his blues oeuvre, rather than by overloading each poem with quaintness and naivety—Hughes made his most important contributions to the genre. His blues poems are in fact closer stylistically to the folk blues on which he modeled them than to the cultivated classic blues. Arnold Rampersad has observed that virtually all of the poems in the 1927 collection in which Hughes essentially originated blues poetry fall deliberately within the “range of utterance” of common folk. This surely applies to “Young Gal’s Blues,” in which Hughes avoids the conventionally “poetic” language and images that the subjects of death and love sometimes elicit in his ordinary lyric poetry. To see what Hughes’ blues poetry might have been like if he had truly adopted the classic blues as his model, one need only look to “Golden Brown Blues,” a song lyric Hughes wrote for composer W.C. Handy. Its images, allusions, and diction are conspicuously remote from the common “range of utterance.”

1. The primary purpose of the passage is to
  - A. describe the influence of folk and classic blues on blues poetry
  - B. analyze the effect of African American culture on blues poetry
  - C. demonstrate that the language used in Hughes’ blues poetry is colloquial
  - D. defend Hughes’ blues poetry against criticism that it is derivative
  - E. refute an accepted view of Hughes’ blues poetry style
2. The author of the passage uses the highlighted quotation primarily to
  - A. indicate how blues poetry should be performed
  - B. highlight the difficulties faced by writers of blues poetry
  - C. support the idea that blues poetry is a genre doomed to fail
  - D. illustrate the obstacles that blues poetry is unable to overcome
  - E. suggest that written forms of blues are less authentic than sung blues
3. It can be inferred from the passage that, as compared with the language of “Golden Brown Blues,” the language of “Young Gal’s Blues” is
  - A. more colloquial
  - B. more melodious
  - C. marked by more allusions
  - D. characterized by more conventional imagery
  - E. more typical of classic blues song lyrics
4. According to the passage, Hughes’ blues poetry and classic blues are similar in which of the following ways?
  - A. Both are improvised
  - B. Both are written down
  - C. Both are intended for the same audience
  - D. Neither uses colloquial language
  - E. Neither is professionally performed

## Passage 7

In February 1848 the people of Paris rose in revolt against the constitutional monarchy of Louis-Philippe. Despite the existence of excellent narrative accounts, the February Days, as this revolt is called, have been largely ignored by social historians of the past two decades. For each of the three other major insurrections in nineteenth-century Paris—July 1830, June 1848, and May 1871—there exists at least a sketch of participants' backgrounds and an analysis, more or less rigorous, of the reasons for the occurrence of the uprisings. Only in the case of the February Revolution do we lack a useful description of participants that might characterize it in the light of what social history has taught us about the process of revolutionary mobilization.

Two reasons for this relative neglect seem obvious. First, the insurrection of February has been overshadowed by that of June. The February Revolution overthrew a regime, to be sure, but met with so little resistance that it failed to generate any real sense of historical drama. Its successor, on the other hand, appeared to pit key socioeconomic groups in a life-or-death struggle and was widely seen by contemporary observers as marking a historical departure. Through their interpretations, which exert a continuing influence on our understanding of the revolutionary process, the impact of the events of June has been magnified, while, as an unintended consequence, the significance of the February insurrection has been diminished. Second, like other "successful" insurrections, the events of February failed to generate the most desirable kinds of historical records. Although the June insurrection of 1848 and the Paris Commune of 1871 would be considered watersheds of nineteenth-century French history by any standard, they also present the social historian with a signal advantage: these failed insurrections created a mass of invaluable documentation as a by-product of authorities' efforts to search out and punish the rebels.

Quite different is the outcome of successful insurrections like those of July 1830 and February 1848. Experiences are retold, but participants typically resume their daily routines without ever recording their activities. Those who played salient roles may become the objects of highly embellished verbal accounts or in rare cases, of celebratory articles in contemporary periodicals. And it is true that the publicly acknowledged leaders of an uprising frequently write memoirs. However, such documents are likely to be highly unreliable, unrepresentative, and unsystematically preserved, especially when compared to the detailed judicial dossiers prepared for everyone arrested following a failed insurrection.

As a consequence, it may prove difficult or impossible to establish for a successful revolution a comprehensive and trustworthy picture of those who participated, or to answer even the most basic questions one might pose concerning the social origins of the insurgents.

1. With which of the following statements regarding revolution would the author most likely agree?
  - A. Revolutionary mobilization requires a great deal of planning by people representing disaffected groups.
  - B. The objectives of the February Revolution were more radical than those of the June insurrection.
  - C. The process of revolutionary mobilization varies greatly from one revolution to the next.
  - D. Revolutions vary greatly in the usefulness of the historical records that they produce.
  - E. As knowledge of the February Revolution increases, chances are good that its importance will eventually eclipse that of the June insurrection.
2. Which of the following is the most logical objection to the claim made in the last paragraph?
  - A. The February Revolution of 1848 is much less significant than the July insurrection of 1830.
  - B. The backgrounds and motivations of participants in the July insurrection of 1830 have been identified, however cursorily.
  - C. Even less is known about the July insurrection of 1830 than about the February Revolution of 1848.
  - D. Historical records made during the July insurrection of 1830 are less reliable than those made during the May insurrection of 1871.
  - E. The importance of the July insurrection of 1830 has been magnified at the expense of the significance of the February Revolution of 1848.
3. The purpose of the second paragraph is to explain why
  - A. the people of Paris revolted in February 1848 against the rule of Louis-Philippe
  - B. there exist excellent narrative accounts of the February Days
  - C. the February Revolution met with little resistance
  - D. a useful description of the participants in the February Revolution is lacking
  - E. the February Revolution failed to generate any real sense of historical drama
4. It can be inferred from the passage that the author considers which of the following essential for understanding a revolutionary mobilization?
  - A. A comprehensive theory of revolution that can be applied to the major insurrections of the nineteenth century

- B. Awareness of the events necessary for a revolution to be successful
- C. Access to narratives and memoirs written by eyewitnesses of a given revolution
- D. The historical perspective provided by the passage of a considerable amount of time
- E. Knowledge of the socioeconomic backgrounds of a revolution's participants

## Passage 8

Jane Austen's relationship to Romanticism has long been a **vexed** one. Although her dates (1775-1817) place her squarely within the period, she traditionally has been studied apart from the male poets whose work defined British Romanticism for most of the twentieth century. In the past her novels were thought to follow an Augustan mode at odds with the Romantic ethos. Even with the advent of **historicist and feminist criticism**, which challenged many previous characterizations of Austen as detached from the major social, political, and aesthetic currents of her time, she continued to be distinguished from her male contemporaries. Jerome McCann, for example, insists that Austen does not espouse the Romantic ideology. Anne Mellor declares that Austen, along with other "leading women intellectual and writers of the day" "did not," participate in the Romantic "spirit of the age" but instead embraced an alternative ideology that Mellor labels "**feminine Romanticism**".

To be sure, some critics throughout the years have argued for Austen's affinities with one or more of the male Romantic poets. A special issue of the *Wordsworth Circle* (Autumn 1976) was devoted to exploring connections between Austen and her male contemporaries. Clifford Siskin in his historicist study of Romanticism argued that Austen does participate in the same major innovation, the naturalization of belief in a developing self, as characterizes Wordsworth's poetry and other key works from the period. Recently, three books have appeared (by Clara Tuite, William Galperin, and William Deresiewicz) that in various ways treat Austen as a Romantic writer and together signal a shift in the tendency to segregate the major novelist of the age from the major poets.

The present essay seeks to contribute to this goal of firmly integrating Austen within the Romantic movement and canon. It does so by pointing out affinities between Austen and a writer with whom she has not commonly been associated, John Keats. Most comparisons of Austen and the Romantic poets have focused on Wordsworth and Byron, whose works we know she read. Although Austen could not have read Keats's poems, which only began to appear in print during the last years of her life, and there is no evidence that Keats knew Austen's novels, a number of important similarities can be noted in these writers' works that provide further evidence to link Austen with the Romantic movement, especially the period of second-generation Romanticism when all of her novels were published.

1. The primary purpose of the passage is to
  - A. reconcile two competing positions in an ongoing critical debate
  - B. develop a counterargument against a recent interpretation of a writer's work
  - C. provide support for a new approach to a writer's work
  - D. illustrate the contradictions experienced by women writers during a certain period
  - E. explain a writer's detachment from the major intellectual currents of a period.
2. The author of the passage describes Austen's relationship to Romanticism as "vexed" mainly because
  - A. her novels do not follow the Augustan mode to the extent the poetry of her contemporaries did
  - B. her views seem to be at odds with those of male writers whose works defined British Romanticism
  - C. her novels were written during the Romantic period, yet she is not treated as a Romantic writer.
  - D. her novels are critical of the Romantic ideology, embracing instead an alternative ideology sometimes described as "feminine Romanticism"
  - E. she achieved recognition for her novels, whereas the Romantic era is better known for its poetry.
3. According to the passage, compared to critics trained in "historicist and feminist criticism," earlier critics of Austen were
  - A. more likely to represent her as isolated from the major intellectual currents of her period.
  - B. more likely to represent her as departing from Augustan modes of thought
  - C. more likely to find connections between her novels and Romantic poetry
  - D. less likely to neglect the influence of Romantic ideology on her work
  - E. less likely to notice affinities between Austen and her female counterparts.
4. The author of the passage would be most likely to agree with which of the following statements about the concept of "feminine Romanticism?"

- A. It brought about Austen's vexed relationship to Romanticism by implying that Austen embraced relatively few elements of the Romantic ideology
- B. It contributes to Austen's vexed relationship to Romanticism by keeping her separate from the male writers whose poetry is central to the period
- C. It ameliorates Austen's vexed relationship to Romanticism by emphasizing affinities between her and other leading women intellectuals of the day
- D. It ameliorates Austen's vexed relationship to Romanticism by capturing the notion of an alternative Romantic ideology that she espoused
- E. It resolves Austen's vexed relationship to Romanticism by demonstrating her affinity with Romantic ideology

## Passage 9

The history of the transmission of ancient Roman texts prior to invention of the printing press is reconstructed from evidence both internal and external to the texts themselves. Internal evidence is used to reconstruct the relationship of the surviving manuscripts of Roman text to one another, as represented in a modern *stemma codicum*: a diagram depicting the genealogical relationship of surviving manuscripts and those the stemma's editor believes existed at one time. Stemmata are scholars' only road maps to textual connections based on internal evidence, but they may paint a distorted picture of reality because they diagram the relationships of only those manuscripts known or inferred today. If surviving copies are few, the stemma perforce brings into proximity manuscripts that were widely separated in time and place of origin. Conversely, the stemma can also bestow a semblance of separation on manuscripts written within a few months of one another or in the same room.

One type of external evidence that may shed light on the transmission of Roman texts is the availability of a work in the Middle Age, when many classical texts were circulated. Too often, though, too much is inferred about a particular work's circulation in the Middle Ages from the number of manuscripts surviving today. When a work survives in a single manuscript copy, editors call the manuscript, rather glamorously, the "lone survivor"—implying that all its (presumably rare) companions were destroyed sometime early in the Middle Ages by pillaging barbarians. It is equally possible that the work survived far into the Middle Ages in numerous copies in monastic libraries but went unnoticed due to lack of interest. The number of extant manuscripts, however few, really does not allow scholars to infer how many ancient Latin manuscripts of a work survived to the ninth, the twelfth, or even the fifteenth century.

Quotations from a Roman text by a medieval author are another category of external evidence: but does the appearance of a rare word or grammatical construction—or even a short passage—really indicate a medieval author's firsthand knowledge of this or that ancient work, or does such usage instead derive from some intermediate source, such as a grammar book or a popular style manual? Medieval authors do quote extensively from ancient authors; while such quotations provide some evidence of the work's medieval circulation, as well as define its evolving fortunes and the various uses to which it was put, they may be far less useful in reconstructing the text of ancient work.

Much as scholars want to look for overall patterns and formulate useful generalizations, the transmission of each text is different story and each manuscript's history is unique. Scholars must be careful not to draw conclusions that go beyond what evidence can support.

1. The passage is primarily concerned with which of the following?
  - A. Tracing certain changes in the methods used to study the transmission of ancient Roman texts.
  - B. Contrasting two type of evidence used in investigating the transmission of ancient Room texts.
  - C. Outlining certain difficulties associated with studying the transmission of ancient Room texts.
  - D. Advocating the use of one type of evidence about ancient Room texts over the use of another type.
  - E. Explaining the development and potential uses and drawback of stemmata in the study of ancient Room texts.
2. As described in the passage, a stemma is most closely analogous to which of the following?
  - A. A department store inventory list that excludes some departments.
  - B. A map from which a large section has been torn off.
  - C. A chronology that includes only major historical events.
  - D. A family tree in which some generations are not recorded
  - E. A government organizational chart from which some agencies are omitted.

Consider each of the choices separately and select all that apply

3. In its discussion of external evidence, the passage suggests which of the following about manuscripts of ancient Roman texts during the Middle Ages?

A. It is possible that fewer manuscripts were destroyed by barbarians in the early Middle Ages than scholars frequently suppose.

B. Additional copies of some so-called lone survivor manuscripts may have existed well into the Middle Ages.

C. If an ancient Roman text is quoted in word by medieval author, it is likely that at least one manuscript copy of that text survived into the Middle Ages.

4. Click on the sentence in the first paragraph that suggests that scholars might be led to underestimate the extent of the connection between certain manuscripts.

### Passage 10

In 1948, James Baldwin, like many African American writers before him, left the United States to live and write in Paris. Around this time, Baldwin had been reading the work of the earlier White American novelist Henry James, who had also left his homeland to write from Europe. Baldwin may have been attracted to James's thematic focus on "the eternal outsider" as an alternative to the protest tradition of fiction, with its explicit social and political didacticism—a tradition that Baldwin found to be confining. Baldwin aspired to achieve in his fiction the kind of universalism that mainstream critics and readers did not usually associate with the work of Black writers, he was determined, he said to prevent himself from becoming "merely a Negro writer." While Baldwin's first novel, *Go Tell It on the Mountain* (1953), is set in the African American community of Harlem and features characters closely modeled on Baldwin's own family, his second novel, *Giovanni's Room* (1956), moved far beyond this social setting: its narrator is a White American living in Paris, and all the other characters are White as well. Indeed, critic Leslie Fiedler found it odd that not a single African American appeared in the Paris of the novel, despite their well-known presence in that city.

Though Baldwin's use of an all-White cast seemed brave when the novel was first published, there were notable precedents. For African American writers at the turn of the twentieth century, such as Charles Chesnutt and Paul Laurence Dunbar, the so-called raceless novel featuring White characters and plots devoid of racial and social themes was a commercial venture, usually a love story. Late, in the 1930s and 1940s, William Attaway, Chester Himes, and Willard Motley, influenced by the naturalist movement, which had brought the ethnic working class into American literature, all wrote novels about White characters struggling with social and economic obstacles. However, these novels' explicit acknowledgment of their characters' social and ethnic backgrounds meant that they were not considered "raceless" in the old-fashioned sense. The "raceless" novel returned with Richard Wright's *Savage Holiday* (1954). Wright's portrait of a White New York insurance executive suffering a breakdown was greeted in some quarters with the argument that in dealing exclusively with White characters, Wright had denied himself the subject matter that had given his other work its ferocious animation. But either the novel with White ethnic main characters or the "raceless" novel appears, at least as an experiment, in the careers of the best-known expatriate African American writers. In the 1950s, African American writers had few chances to demonstrate that they had any knowledge of life that did not have something to do with Black. **Those who wrote about White characters were, in effect, questioning the definitions of the Black writer, if not of African American literature itself.**

1. The author of the passage suggests that Baldwin shared which of the following with the African American writers discussed in the last sentence of the passage?

A. An interest in presenting American characters in European settings.

B. A desire to challenge some readers' and critics' assumptions about Black writers.

C. A skepticism about the effectiveness of didacticism in fiction.

D. A preoccupation with the theme of "the eternal outsider"

E. A dissatisfaction with earlier Black writers' "raceless" novels.

2. It can be inferred that the author of the passage mentions an observation by Leslie Fiedler primarily in order to

A. emphasize the deliberateness of Baldwin's exclusion of African American characters from *Giovanni's Room*.

B. contrast Baldwin's depiction of certain themes in *Giovanni's Room* with his treatment of those

themes in *Go Tell It on the Mountain*.

C. suggest that *Giovanni's Room* did not win Baldwin the kind of response he had hoped for from mainstream critics.

D. explain why Baldwin chose to set *Giovanni's Room* in a European rather than American city

E. challenge one view about why Baldwin chose to write a novel in which the narrator and all the other characters are White.

3. The passage suggests that which of the following was one possible reason for Baldwin's interest in the work of Henry James?

A. Similarities between James's and Baldwin's ideas about literary style.

B. Similarities between James's and Baldwin's reasons for leaving the United States to write in Europe.

C. James's use of social and political themes for didactic purpose.

D. James's reputation among mainstream critics and readers for addressing universal themes.

E. James's treatment of a theme that Baldwin found to be less confining than themes of protest fiction.

4. The author of the passage mentions William Attaway, Chester Himes and Willard Motley primarily in order to

A. suggest that critics may have been more accepting of protest fiction by African American writers when that fiction did not directly address African Americans' experience

B. illustrate a point about African American novelists' success in presenting subject matter not usually associated with African American literature.

C. distinguish a view about African American literature held by certain African American writers of the 1930s and 1940s from a view held by many earlier writers.

D. challenge some critics' view that African American novelists sacrificed an important source of power in their work when they chose to focus on White characters

E. support the point that Baldwin's exclusive focus on White characters in *Giovanni's Room* was not an unprecedented choice for an African American novelist.

## Passage 11

Recently, researchers investigated the foraging profiles of bird species in two separate eucalypt forests in Australia, Dryandra in Western Australia and the Southern Tablelands, roughly 3000 km east in New South Wales. Despite their geographical separation, there is a broad overlap in species between the two locations. However, at Dryandra, a much larger proportion of species (61 percent) than at the Southern Tablelands (34 percent) are ground foragers.

The high proportion of ground foragers in Dryandra might be explained by the openness of habitats there, that is, the absence of dense ground vegetation, and the lack of a continuous shrub layer. Ground foraging appears to be facilitated by an open habitat with areas of bare ground. However, the researchers found that the Tablelands were also open with sparse to dense litter layers, abundant in woody debris, and had discontinuous or absent ground and shrub layers. Thus, differences in habitat structures between these areas and Dryandra cannot entirely explain the greater abundance of ground foragers in Dryandra.

The researchers offered several hypotheses to explain the difference. First, there may be important differences in habitat structure that are not revealed by casual observation. For example, differences in tree heights and **canopy complexity** may contribute to differences in species richness and foraging behavior among bark and foliage-foraging birds. Second, despite structural similarities, it is possible that there are differences between habitats in the abundance or availability of litter and ground dwelling prey. Such differences, if they exist, may indicate fundamental differences between eucalypt ecosystems in how and where energy and nutrients are cycled, as well as in overall productivity. Finally, the differences in foraging profiles between Dryandra and the Tablelands may be the result of historical changes in bird species as a consequence of changed grazing and fire regimens, the impact of introduced predators, such as foxes and feral cats, and logging following European settlement. **The greatest impact of these processes is on ground-foraging and ground-nesting birds.** Dryandra had not been free of these changes, but the impact may have been less or more recent with the result that Dryandra may retain a more natural or complete bird diversity relative to the Tablelands.

1. Which of the following best describes the organization of the second paragraph?

A. A thesis is proposed and supporting examples are provided.

B. A thesis is presented, considered, and then rejected.

C. opposing views are described and the evidence on which they are based is evaluated.

- D. An argument is described, rejected, and then an alternative is proposed.  
E. A hypothesis is presented, weighed, qualified, and then reaffirmed.
2. Which of the following best describes the function of the highlighted sentences in the context of the passage as a whole?
- A. It reconciles two conflicting theories discussed earlier in the passage.  
B. It provides an example of a general tendency described earlier in the passage.  
C. It suggests the relevance of phenomena mentioned in the previous sentence.  
D. It provides support for a claim made in the first paragraph.  
E. It provides evidence for a hypothesis discussed in the second paragraph.
3. The passage suggests which of the following about “canopy complexity”?
- A. Decreased canopy complexity can lead to a greater abundance of ground foragers.  
B. Increased canopy complexity usually helps in retaining a more natural bird diversity.  
C. Increased canopy complexity is usually detrimental to ground-nesting species.  
D. Differences in canopy complexity between two regions are not always obvious.  
E. Differences in foraging behavior among foliage-foraging birds can lead to differences in canopy complexity.
4. The author suggests which of the following about “foxes and feral cats”?
- A. They may have benefited from the logging that followed European settlement.  
B. They probably affect the overall productivity of the ecosystem.  
C. They feed primarily on ground-foraging birds.  
D. They rarely, if ever, feed on tree-nesting birds.  
E. They may have had a smaller impact on Dryandra than on the Tablelands.

## Passage 12

In the late nineteenth century, art critics regarded seventeenth-century Dutch paintings as direct reflections of reality. The paintings were discussed as an index of the democracy of a society that chose to represent its class, action, and occupations exactly as they were; wide-ranging realism was seen as the great accomplishment of Dutch art. However, the achievement of more recent study of Dutch art has been the recovery of the fact that such paintings are to be taken as symbolizing mortality, the renaissance of earthly life, and the power of God, and as message that range from the mildly moralizing to the firmly didactic. How explicit and consistent the symbolizing process was intended to be is a much thornier matter, but anyone who has more familiarity than a passing acquaintance with Dutch literature or with the kinds of images used in illustrated books (above all emblem books) will know how much less pervasive was the habit of investing ordinary objects than of investing scenes with meaning that go beyond their surface and outward appearance. In the mid-1960s, Eddy de Jongh published an extraordinary array of material—especially from the emblem books and vernacular literature—that confirmed the unreliability of taking Dutch pictures at surface value alone.

The major difficulty, however, with the findings of critics such as de Jongh is that it is not easy to assess the multiplicity of levels in which Dutch viewers interpreted these pictures. De Jongh’s followers typically regard the pictures as purely symbolic. Not every object within Dutch paintings need be interpreted in terms of the gloss given to its equivalent representation in the emblem books. Not every foot warmer is to be interpreted in terms of the foot warmer in Rowmer Visscher’s *Sinnepoppen* of 1614, not every **bridle** is an emblem of restraint (though many were indeed just that).

To maintain as Brown does, that the two children in Netscher’s painting *A Lady Teaching a Child to Read* stand for industry and idleness is to fail to understand that the painting has a variety of possible meanings, even though the picture undoubtedly carries unmistakable symbolic meanings, too. Modern Art historians may well find the discovery of parallels between a painting and a specific emblem exciting; they may, like seventeenth-century viewers, search for the double that lie behind many paintings. But seventeenth-century response can hardly be reduced to the level of formula. To suggest otherwise is to imply a laboriousness of mental process that may well characterize modern interpretations of seventeenth-century Dutch Art, but that was, for the most part, not characteristic in the seventeenth century.

1. The passage is primarily concerned with which of the following?
- A. Reconciling two different points of view about how art reflects  
B. Criticizing a traditional method of interpretation

- C. Tracing the development of an innovative scholarly approach
  - D. Describing and evaluating a recent critical approach
  - E. Describing a long-standing controversy and how it was resolved
2. The author of the passage mentions bridles in the highlighted portion of the passage most likely in order to
- A. Suggest that restraint was only one of the many symbolic meanings attached to bridles
  - B. Provide an example of an everyday, physical object that was not endowed with symbolic meaning
  - C. Provide an example of an object that modern critics have endowed with symbolic meaning different from the meaning assigned it by seventeenth-century Dutch artists
  - D. Provide an example of an object with symbolic meaning that was not always used as a symbol
  - E. Provide an example of an everyday object that appears in a significant number of seventeenth-century Dutch paintings
3. Which of the following best describes the function of the last paragraph of the passage?
- A. It provides specific applications of the critical approach introduced in the preceding paragraph
  - B. It present a caveat about the critical approach discussed in the preceding paragraph
  - C. It presents the research on which a theory presented in the preceding paragraph is based
  - D. It refutes a theory presented in the preceding paragraph and advocates a return to a more traditional approach
  - E. It provides further information about the unusual phenomenon described in the preceding paragraph
4. The passage suggests which of the following about emblem books in seventeenth-century Holland?
- A. They confirm that seventeenth century Dutch painting depict some objects and scenes rarely found in daily life.
  - B. They are more useful than vernacular literature in providing information about the symbolic content of seventeenth-century Dutch painting.
  - C. They have been misinterpreted by art critics, such as de Jongh, who claim seventeenth-century Dutch paintings contain symbolic meaning
  - D. They are not useful in interpreting seventeenth-century Dutch landscape painting.
  - E. They contain material that challenges the assumptions of the nineteenth-century critics about seventeenth-century Dutch painting.

### Passage 13

Massive projectiles striking much larger bodies create various kinds of craters, including “multi-ring basins”—the largest geologic features observed on planets and moons. **In such collisions, the impactor is completely destroyed and its material is incorporated into the larger body.** Collisions between bodies of comparable size, on the other hand, have very different consequences: one or both bodies might be entirely smashed, with mass from one or both the bodies redistributed among new objects formed from the fragments. Such a titanic collision between Earth and a Mars-size impactor may have given rise to Earth’s Moon.

The Earth-moon system has always been perplexing. Earth is the only one of the inner planets with a large satellite, the orbit of which is neither in the equatorial plane of Earth nor in the plane in which the other planets lie. The Moon’s mean density is much lower than that of Earth but is about the same as that of Earth’s mantle. This similarity in density has long prompted speculation that the Moon split away from a rapidly rotating Earth, but this idea founders on two observations. In order to spin off the Moon, Earth would have had to rotate so fast that a day would have lasted less than three hours. Science offers no plausible explanation of how it could have slowed to its current rotational rate from that speed. Moreover, the Moon’s composition, though similar to that of Earth’s mantle, is not a precise match. Theorizing a titanic collision eliminates postulating a too-rapidly spinning Earth and accounts for the Moon’s peculiar composition. In a titanic collision model, the bulk of the Moon would have formed from a combination of material from the impactor and Earth’s mantle. Most of the earthly component would have been in the form of melted or vaporized matter. The difficulty in recondensing this vapor in Earth’s orbit, and its subsequent loss to the vacuum of outer space, might account for the observed absence in lunar rocks of certain readily vaporized **compounds and elements**.

Unusual features of some other planets might also be explained by such impacts. Mercury is known to have a high density in comparison with other rocky planets. A titanic impact could have stripped away a portion of its rocky mantle, leaving behind a metallic core whose density is out of proportion with the original ratio of rock to metal. A massive, glancing blow to Venus might have given



it its anomalously slow spin and reversed direction of rotation. Such conjectures are tempting, but, since no early planet was immune to titanic impacts, they could be used indiscriminately to explain away in a cavalier fashion every unusual planetary characteristic. Still, we may now be beginning to discern the true role of titanic impacts in planetary history.

1. According to the passage, which of the following is true of the collisions mentioned in the highlighted sentence?
  - A. They occur less frequently than do titanic collisions.
  - B. They occur between bodies of comparable size.
  - C. They occur primarily between planet-sized bodies.
  - D. They result in the complete destruction of the impacting body.
  - E. They result in mass being redistributed among newly formed objects.
2. The author of the passage asserts which of the following about titanic collision models?
  - A. Such models are conclusive with respect to certain anomalies within the solar system, but leave numerous other anomalies unexplained.
  - B. Such models are more likely than are earlier models to account for the formation of multi-ring basins.
  - C. Such models may be particularly useful in explaining what happens when the impacting bodies involved are of highly dissimilar mean densities.
  - D. Such models have been tested to such a degree that they are quickly reaching the point where they can be considered definitive.
  - E. Such models are so tempting that they run the risk of being used indiscriminately to explain unusual planetary features.
3. The passage suggests that which of the following is true of the cited “compounds and elements”?
  - A. They were created by reactions that took place during a titanic collision.
  - B. They were supplied by an impactor that collided with Earth.
  - C. They were once present on the Moon but were subsequently vaporized.
  - D. They are rarely found on planet-size bodies in our solar system.
  - E. They are present on Earth but not on the Moon.
4. In the second paragraph, the author is primarily concerned with
  - A. arguing in favor of a particular theory about the formation of the Earth-Moon system.
  - B. summarizing conventional theories about the formation of the Earth-Moon system.
  - C. anticipating and responding to criticisms of particular theory about the formation of the Earth-Moon system.
  - D. explaining why the Earth-Moon system is considered scientifically perplexing.
  - E. questioning an assumption underlying one theory about the formation of the Earth-Moon system.

#### Passage 14

In wills written in Chester County, Pennsylvania, between 1750 and 1850, the portion of husbands' estates left to widows varied over time. Early in the period, the widow's share reflected the region's rural character. The family farm was both home and business, appropriately in a society where land produced income, the most common pattern of bequest assured a widow maintenance by having her receive part of the house to live in and produce from the farm. The widow then lived on the farm with her minor children, if any, and an adult child or tenant. This arrangement provided her with a business and the requisite labor to make it profitable. The widow received a fixed portion of the farm's produce, which she could consume or sell as she wished. A bequest including farm produce allowed a rural widow some protection against the economic fluctuations common in late-eighteenth- and early-nineteenth-century America. It sheltered her from inflation better than a cash annuity, which could lose real value. Conversely, in times of depression when prices were low, she had food even if she encountered difficulties in selling the excess profitably.

The two decades after 1830 witnessed a **significant drop** in bequests of house and supplies and a rise in the percentage of widows who were left an entire estate. In part, this shift reflects the country's changing nature. As small towns grew among the homesteads, more men worked in nonfarm occupations. Small shopkeepers or blacksmiths were less likely to provide their wives with a farmhouse and supplies of grain and produce. Chester County inheritance patterns became more like those in neighboring Philadelphia, where farm ownership was rare. Philadelphia men tended to provide

their widows with inheritances that suited the city's economic life. Urban craftsmen, shopkeepers, and merchants left their wives interest from stocks and bonds, personal property, and real estate, but only rarely part of a house and supplies. As Philadelphia became more industrialized, after about 1800, testators increasingly chose to leave their entire estates to their wives.

The increasing occurrence of this pattern in both Philadelphia and Chester County was partly accounted for by the fact that a married couple formed an economic unit. Both partners worked to promote its financial well-being, and the family's economic success, whether on the farm or in the city, often required considerably more from a woman than mastery of domestic chores. Men who entrusted their widows with their entire estates were generally middle-level craftsmen and shopkeepers. They bequeathed everything to their widows because they valued their wives' business sense. This trust almost certainly grew from years of working together behind the store counter. The widow inheriting a dry-goods store or tailor's shop simply continued to run the enterprise after her husband's death for the benefit of the family.

1. The primary purpose of the passage is to
  - A. compare the distinctive economic characteristics of two neighboring communities
  - B. provide examples in support of a hypothesis regarding the causes of a particular historical phenomenon
  - C. link a historical phenomenon to economic and demographic changes
  - D. refute an argument regarding the effect of industrialization on a certain historical phenomenon
  - E. describe how a particular historical phenomenon encouraged the spread of industrialization in a certain region
2. The passage mentions which of the following as an advantage of a bequest of a fixed portion of a farm's produce?
  - A. The fact that its cash value would not change from year to year
  - B. The fact that it made use of the experience that most widows already had in running a farm
  - C. Its assurance of maintenance for a widow who inherited a small nonfarm business
  - D. Its usefulness to a rural widow in both good and bad economic conditions
  - E. Its protection of the widow's financial interests when the survivors included adult children
3. The author of the passage suggests that the "significant drop" took place in part because
  - A. husbands saw that a bequest of house and supplies provided insufficient income for a rural widow
  - B. men working in nonfarm occupations believed that their wives were capable of running the family business themselves
  - C. economic fluctuations after 1830 made it difficult for a widow to run a farm profitably, even with the help of an adult child or tenant
  - D. as small towns grew and land became less available, men were more likely to leave their estates to their children
  - E. as Philadelphia became more industrialized, more families derived their main income from investments rather than farming
4. The passage suggests that between 1800 and 1830, inheritance patterns in Philadelphia differed from those in Chester County in that in Philadelphia
  - A. the nature of bequests was influenced by the economic character of the region
  - B. the percentage of widows who were left an entire estate remained constant
  - C. relatively few testators chose to leave their entire estates to their wives
  - D. bequests to a widow of part of a house and supplies were relatively rare
  - E. middle-level craftsmen and shopkeepers were unlikely to bequeath supplies of grain and produce

### Passage 15

In a critique of Mrs. Elizabeth Norman's *The Child of Woe: A Novel* (1789), the *Analytical Review* (February 1789) remarked that having no other virtues to recommend it, the book could only be termed "a truly feminine novel," the vast majority of which were "so near akin to each other, that with a few trifling alterations, the same review would serve for almost all of them." The *Analytical Review*'s rather arch dismissal of novels by women has all too often been reflected in the literary histories of English fiction, where it has been popular to view the rise of the novel as the exclusive history of "the five greats" (Defoe, Richardson, Fielding, Smollett, and Sterne) and to ignore or at best to minimize the contributions of eighteenth-century women novelists. Serious readers of eighteenth-century fiction

have finally come to admit, however, that the novel did not spring fully formed from the mind of Richardson, but was the child of many parents and the outgrowth of narrative techniques and fictional conventions first developed by writers of popular fiction, many of them women. In short, literary historians and critics have begun to give eighteenth-century women novelists their due, process of reassessment that owes much to the rise of women's studies and a parallel growth in critical interest in eighteenth-century fiction in general.

Today's critical focus on the "feminine novel" as a category suggests that in one sense the Analytical Review was right: women novelists of the eighteenth century were "akin to each other," sharing common interests, common themes, common techniques, and as women of the eighteenth century, a common fate. But the analytical Review was also quite mistaken, for if, as popular writers, eighteenth-century women produced a large body of eminently forgettable (if not unreadable) works, the many modern readers of the new paperback editions of these women's novels remind us that eighteenth-century women novelists also created an abundance of works marked by their quality and originality, as well as their historical interest. Moreover, the sheer variety of modern critical debate surrounding them prove beyond question that never again will the same review "feminine novel" and the liveliness of the course, as in all areas of literary study, much has been written that was perhaps better left unsaid, some scholarship seems superfluous, some merely dull. But the general critical controversy is a healthy sign, indicating that eighteenth century women writers are finally being judged as intentional artists worthy of such consideration. What seems clearest of all is that the rediscovery of the eighteenth-century woman novelist has resulted in the skillful mapping of a kind of new literary territory that, although not entirely unknown, had until recently been infrequently visited and remained largely unexplored.

1. The passage identifies which of the following factors as contributing to scholarly reevaluations of such novels as *The Child of Woe*?

- A. Renewed scholarly interest in the development of narrative techniques
- B. Growing critical distaste for the works of "the five greats"
- C. The availability of new editions of such works and modern readers' interest in them
- D. The rise of women's studies and interest in eighteenth-century fiction
- E. Critics' awareness of the need to investigate conventions used in eighteenth-century fiction

2. The passage suggests that which of the following is true of eighteenth century women novelists?

- A. In the eighteenth century, such writers were more widely known than were "the five greats"
- B. Their reputation among serious readers of fiction declined substantially after the eighteenth century
- C. One cannot adequately describe the origins of the novel without considering the works of such writers
- D. Their works embraced certain literary conventions already established by writers of earlier periods
- E. It is important to recognize that such novelists' works are of greater historical significance than those of "the five greats"

3. It can be inferred from the passage that the author believes which of the following about critical controversy?

- A. When critics disagree vigorously about how to read a literary work, that very disagreement is some evidence of the work's significance.
- B. Scholarly argument concerning a literary work is likely to be less spirited if the work has always been valued by scholars in the past.
- C. Heated debate concerning a literary work ought to be resolved quickly by a concerted effort among scholars to assess the work objectively.
- D. Although critical controversy about a literary work usually results in some degree of overstatement, it constitutes the strongest evidence that the work is valued by the reading public.
- E. When a work is praised by critics at its publication, it is unlikely to remain popular among critics of later generations.

4. The author of the passage criticizes some recent scholarship of the eighteenth-century feminine novel for being

- A. unobjective and polemical
- B. unnecessary and tedious
- C. insubstantial and frivolous
- D. overly technical and complex
- E. arch in tone and dismissive

## Passage 16

Prior to 1980, paleontologists assumed that the stratigraphic record was not problematic in a way that should limit the scope of the ecological or evolutionary questions paleontologists could address via stratigraphic analysis. Thus during the 1970s paleontologists attempted to describe ecological processes within fossil communities without asking whether the fossil record was able to resolve time to the scale of centuries or decades. Other paleontologist analyzed the evolutionary process of species formation (speciation), assuming that observed patterns of divergence, whether gradual or sudden, between related organisms in various strata of the fossil record accurately recorded speciation events.

In 1980, however, important studies proved that marine paleontologists generally could not resolve time finely enough to observe ecological events over a long duration, raising questions about their ability to resolve fine-scale evolutionary processes as geological deposits that record brief intervals of time (beds laid related geological events, for example) are too widely spaced in the speciation events. Other deposits are so condensed and/ or disturbed that fine-scale temporal information has been lost. For example, large storms may rework thousands of years of sediments into a single “time-averaged” event bed, combining fossils that were produced over long spans of time, removing seasonal and yearly fluctuations. Burrowing by animals may partially or completely rework the stratigraphic analyses yet more doubtful.

For paleontologists studying species formation, at least, information derived from the use of cladistics methods (in which fossil organisms are grouped strictly according to shared characteristics) shows some promise as a proxy for continuous temporal information from the fossil record. However, in many groups of organisms, similarities acquired as a result of parallel independent evolution or by the convergence of independently evolved forms are pervasive. In these case, stratigraphic information, despite its incomplete nature, may prove a valuable adjunct, as some species can be excluded as potential ancestors (or descendants) of others based on the relative times of their first appearances in the fossil record.

In cases where we use stratigraphic analysis to derive fine-scale evolutionary or ecological information, we must always consider the possibility that any particular sequence of strata may be insufficient to record the particular ecological or evolutionary processes under study. Certainly there are stratigraphic intervals where fossils is good enough, and sampling is sufficient that ecological change in a biological community or morphological changes within a species can be chronicled, but such circumstances must be carefully documented by the investigator.

1. The author cites each of the following as a potential cause of uncertainty or confusion in the fossil record EXCEPT

- A. destruction by living organisms of the original fossil ordering
- B. disturbances of sedimentary layers caused by large storms
- C. geological deposits that are extremely condensed
- D. geological deposits that are too widely spaced to provide a continuous record of speciation events
- E. the action of various chemical solvents such as water on fossils

2. The passage suggests that which of the following is true at most sites where fossils are found?

- A. The actual patterns of species divergence are preserved accurately
- B. The fossil specimens are accumulated randomly and are unrelated
- C. An uninterrupted sequence of information about past organisms is available
- D. Discrimination among fossils at a timescale of decades or centuries is seldom possible
- E. a variety of intact and well-preserved fossils are present

3. According to the author of the passage, information provided by stratigraphic analysis can be a valuable supplement to cladistics methods by

- A. providing evidence to confirm paleontologists’ assumptions about the rate at which organisms change
- B. extending the scope of cladistics studies to include longer spans of time
- C. eliminating some species from consideration as possible evolutionary ancestors or descendants of other species
- D. identifying cases of parallel and convergent evolution in the organisms under study
- E. introducing fine-scale temporal information that cladistics method fail to provide

## Passage 17

The *Fourteenth Amendment* to the United States Constitution, ratified in 1868, prohibits state governments from denying citizens the “equal protection of the laws.” Although precisely what the framers of the amendment meant by this equal protection clause remains unclear, all interpreters agree that the framers’ immediate objective was to provide a constitutional warrant for the *Civil Rights Act* of 1866, which guaranteed the citizenship of all persons born in the United States and subject to United States jurisdiction. This declaration, which was echoed in the text of the *Fourteenth Amendment*, was designed primarily to counter the Supreme Court’s ruling in *Dred Scott v. Sandford* that Black people in the United States could be denied citizenship. The act was vetoed by President Andrew Johnson, who argued that the *Thirteenth Amendment*, which abolished slavery, did not provide Congress with the authority to extend citizenship and equal protection to the freed slaves. Although Congress promptly overrode Johnson’s veto, supporters of the act sought to ensure its constitutional foundations with the passage of the *Fourteenth Amendment*.

The broad language of the amendment strongly suggests that its framers were proposing to write into the Constitution not a laundry list of specific civil rights but a principle of equal citizenship that forbids organized society from treating any individual as a member of an inferior class. Yet for the first eight decades of the amendment’s existence, the Supreme Court’s interpretation of the amendment betrayed this ideal of equality. In the *Civil Rights Cases* of 1883, for example, the Court invented the “state action” limitation, which asserts that “private” decisions by owners of public accommodations and other commercial businesses to segregate their facilities are insulated from the reach of the *Fourteenth Amendment*’s guarantee of equal protection under the law.

After the Second World War, a judicial climate more hospitable to equal protection claims culminated in the Supreme Court’s ruling in *Brown v. Board of Education* that racially segregated schools violated the equal protection clause of the *Fourteenth Amendment*. Two doctrines embraced by the Supreme Court during this period extended the amendment’s reach. First, the Court required especially strict scrutiny of legislation that employed a “suspect classification,” meaning discrimination against a group on grounds that could be construed as racial. This doctrine has broadened the application of the *Fourteenth Amendment* to other, nonracial forms of discrimination, for while some justices have refused to find any legislative classification other than race to be constitutionally disfavored, most have been receptive to arguments that at least some nonracial discriminations, sexual discrimination in particular, are “suspect” and deserve this heightened scrutiny by the courts. Second, the Court relaxed the state action limitation on the *Fourteenth Amendment*, bringing new forms of private conduct within the amendment’s reach.

1. Which of the following best describes the main idea of the passage?
  - A. By presenting a list of specific rights, framers of the *Fourteenth Amendment* were attempting to provide a constitutional basis for broad judicial protection of the principle of equal citizenship.
  - B. Only after the Supreme Court adopted the suspect classification approach to reviewing potentially discriminatory legislation was the applicability of the *Fourteenth Amendment* extended to include sexual discrimination.
  - C. Not until after the Second World War did the Supreme Court begin to interpret the *Fourteenth Amendment* in a manner consistent with the principle of equal citizenship that it expresses.
  - D. Interpreters of the *Fourteenth Amendment* have yet to reach consensus with regard to what its framers meant by the equal protection clause.
  - E. Although the reluctance of judges to extend the reach of the *Fourteenth Amendment* to nonracial discrimination has betrayed the principle of equal citizenship, the Supreme Court’s use of the state action limitation to insulate private activity from the amendment’s reach has been more harmful.
2. The passage suggests that the principal effect of the state action limitation was to
  - A. allow some discriminatory practices to continue unimpeded by the *Fourteenth Amendment*
  - B. influence the Supreme Court’s ruling in *Brown v. Board of Education*
  - C. provide expanded guidelines describing prohibited actions
  - D. prohibit states from enacting laws that violated the intent of the *Civil Rights Act* of 1866
  - E. shift to state governments the responsibility for enforcement of laws prohibiting discriminatory practices
3. The author’s position regarding the intent of the framers of the *Fourteenth Amendment* would be most seriously undermined if which of the following were true?
  - A. The framers had anticipated state action limitations as they are described in the passage.
  - B. The framers had merely sought to prevent discriminatory acts by federal officials.

- C. The framers were concerned that the *Civil Rights Act* of 1866 would be overturned by the Supreme Court.
- D. The framers were aware that the phrase “equal protection of the laws” had broad implications.
- E. The framers believed that racial as well as non-racial forms of discrimination were unacceptable.
4. According to the passage, the original proponents of the *Fourteenth Amendment* were primarily concerned with
- A. detailing the rights afforded by the principle of equal citizenship
- B. providing support in the Constitution for equal protection for all citizens of the United States
- C. closing a loophole that could be used to deny individuals the right to sue for enforcement of their civil rights
- D. asserting that the civil rights protected by the Constitution included nonracial discrimination as well as racial discrimination
- E. granting state governments broader discretion in interpreting the *Civil Rights Act* of 1866
5. The author implies that the *Fourteenth Amendment* might not have been enacted if
- A. Congress’ authority with regard to legislating civil rights had not been challenged
- B. the framers had anticipated the Supreme Court’s ruling in *Brown v. Board of Education*
- C. the framers had believed that it would be used in deciding cases of discrimination involving non-racial groups
- D. most state governments had been willing to protect citizens’ civil rights
- E. its essential elements had not been implicit in the Thirteenth Amendment
6. According to the passage, which of the following most accurately indicates the sequence of the events listed below?
- I. *Civil Rights Act* of 1866
- II. *Dred Scott v. Sandford*
- III. *Fourteenth Amendment*
- IV. Veto by President Johnson
- A. I, II, III, IV
- B. I, IV, II, III
- C. I, IV, III, II
- D. II, I, IV, III
- E. III, II, I, IV
7. Which of the following can be inferred about the second of the two doctrines referred to in lines 39-41 of the passage?
- A. It caused some justices to rule that all types of discrimination are prohibited by the Constitution.
- B. It shifted the focus of the Supreme Court from racial to nonracial discrimination.
- C. It narrowed the concern of the Supreme Court to legislation that employed a suspect classification.
- D. It caused legislators who were writing new legislation to reject language that could be construed as permitting racial discrimination.
- E. It made it more difficult for commercial businesses to practice racial discrimination.

## Passage 18

In 1995 the Galileo spacecraft captured data about Jupiter’s atmosphere—namely, the absence of most of the predicted atmospheric water—that challenged prevailing theories about Jupiter’s structure. The unexpectedness of this finding fits a larger pattern in which theories about planetary composition and dynamics have failed to predict the realities discovered through space exploration. Instead of normal planets whose composition could be predicted by theory, the planets populating our solar system are unique individuals whose chemical and tectonic identities were created through numerous contingent events. One implication of this is that although the universe undoubtedly holds other planetary systems, the duplication of the sequence that produced our solar system and the development of life on Earth is highly unlikely.

Recently planetary scientists have suggested that the external preconditions for the development of Earth’s biosphere probably included four paramount contingencies. First, a climate conducive to life on Earth depends upon the extraordinarily narrow orbital parameters that define a continuously habitable zone where water can exist in a liquid state. If Earth’s orbit were only 5 percent smaller than

it is, temperatures during the early stages of Earth's history would have been high enough to vaporize the oceans. If the Earth-Sun distance were as little as 1 percent larger, runaway glaciation on Earth about 2 billion years ago would have caused the oceans to freeze and remain frozen to this day.

Second, Jupiter's enormous mass prevents most Sun-bound comets from penetrating the inner solar system. It has been estimated that without this shield, Earth would have experienced bombardment by comet-sized impactors a thousand times more frequently than has actually been recorded during geological time. Even if Earth's surface were not actually sterilized by this bombardment, it is unlikely that any but the most primitive life-forms could have survived. This suggests that only planetary systems containing both terrestrial planets like Earth and gas giants like Jupiter might be capable of sustaining complex life-forms.

Third, the gravitational shield of the giant outer planets, while highly efficient, must occasionally fail to protect Earth. Paradoxically, while the temperatures required for liquid water exist only in the inner solar system, the key building blocks of life, including water itself, occur primarily beyond the asteroid belt. Thus the evolution of life has depended on a frequency of cometary impacts sufficient to convey water, as well as carbon and nitrogen, from these distant regions of the solar system to Earth while stopping short of an impact magnitude that would destroy the atmosphere and oceans.

Finally, Earth's unique and massive satellite, the Moon, plays a crucial role in stabilizing the obliquity of Earth's rotational axis; this obliquity creates the terrestrial seasonality so important to the evolution and diversity of life. Mars, in contrast, has a wildly oscillating tilt and chaotic seasonality, while Venus, rotating slowly backward, has virtually no seasonality at all.

1. The passage is primarily concerned with
  - A. Enumerating conditions that may have been necessary for a particular development
  - B. Outlining the conditions under which scientists may be able to predict certain events
  - C. Explaining how a particular finding affected scientists' understanding of a phenomenon
  - D. Suggesting reasons why a particular outcome was more likely to occur than other possible outcomes
  - E. Assessing the relative significance of factors that contributed to a particular occurrence
2. It can be inferred from the passage that the planetary scientists would be most likely to agree with which of the following statements concerning the development of complex life forms on Earth?
  - A. It might have occurred earlier in Earth's history if cometary impacts had been less frequent than they were.
  - B. It could have occurred if Earth's orbit were 1 percent larger than it is but not if Earth's orbit were 5 percent smaller
  - C. It probably follows a pattern common on other terrestrial planets that occupy planetary systems containing gas giants.
  - D. Its dependence on the effect that Jupiter's gravitational shield has on Earth was difficult to recognize prior to 1995.
  - E. It has been contingent on conditions elsewhere in Earth's solar system as well as on conditions on Earth itself.
3. The author of the passage most likely mentions Mars' oscillating tilt primarily in order to
  - A. Provide evidence for a proposition about the potential effects of cometary impacts
  - B. Emphasize the absence from our solar system of normal planets
  - C. Contrast the rotational axis of Mars with that of Venus
  - D. Characterize the role of other planets in the solar system in Earth's development
  - E. Emphasize the importance of the Moon to the development of life on Earth
4. The passage suggests each of the following about water on Earth EXCEPT:
  - A. It was conveyed to Earth by comets
  - B. It appeared on Earth earlier than did carbon and nitrogen
  - C. Its existence in a liquid state is contingent on Earth's orbital parameters
  - D. Much of it came from a part of the solar system where water cannot exist in a liquid state
  - E. It is unlikely that there would be much of it available to support life if the gravitational shield of the outer planets did not limit the frequency with which comets strike Earth

## Passage 19

Received feminist wisdom has conceived of history as a male enclave devoid of woman subjects and practitioners, particularly before the twentieth century. As Ann Foreman put it in 1972, From

Herodotus's to Will Durant's histories, the main characters, the main viewpoints and interests, have all been male. Feminist accounts of the 1970s and 1980s viewed historiography (the writing of history) as overwhelmingly his, coining the term herstory and presenting it as a compensatory feminist practice. Herstory designated women's place at the center of an alternative narrative of past events. Rosalind Miles's description restates the popular view: women's history by contrast has only just begun to invent itself. Males gained entry to the business of recording, defining and interpreting events in the third millennium B.C.; for women, this process did not even begin until the nineteenth century. The herstory method provided a means for feminist historians to explore materials by and about women that had previously been neglected or ignored. Herstory promoted curricular transformation in schools and was used as a slogan on T-shirts, pencils, and buttons. Exposing historians' tacit and intentional sexism, herstory set out to correct the record—to show that women had held up half the historical sky.

Despite the great scholarly gains made behind the rallying cry, herstory's popular myths—particularly about the lack of women who have recorded history—require revision. Herstory may accurately describe feminists' efforts to construct female-centered accounts of the past, but the term inadvertently blinds us to women's important contributions to historical discourse before the nineteenth century. Historiography has not been an entirely male preserve, though feminists are justified in faulting its long-standing masculine contours. In fact, criticism of historiography's sexism is not of recent origin. Early eighteenth-century feminist Mary Astell protested that the Men being the Historians, they seldom condescend to record the great and good Actions of Women. Astell, like those who echoed her sentiments two and a half centuries later, must be credited for admirable zeal in setting out to right scholarly wrongs, but her **supposition** that historians were only male is inaccurate. Her perception is especially strange because she herself wrote a historical work, *An Impartial Enquiry into the Cause of Rebellion and Civil War* (1704). Astell's judgment is at the same time understandable, given that much historical writing by women of the late seventeenth century was not published until the nineteenth century. Despite their courage and their rightful anger, Astell and her descendants overlooked early modern woman writers' contributions to historiography.

1. It can be inferred that Rosalind Miles refers to the third millennium B.C. primarily in order to
  - A. Present an overview of what the practice of history once entailed
  - B. Suggest that the origins of historical study are much earlier than had been previously thought
  - C. Suggest why the third millennium B.C. has received so much attention from historians
  - D. Establish a contrast between men and women in terms of how long they have been recording history
  - E. Indicate how significantly the practice of history has changed since the third millennium B.C.
2. It can be inferred from the passage that the term herstory
  - A. Was popular mainly in the nineteenth century
  - B. Is an old term that feminist put to new uses
  - C. Is controversial within the feminist community
  - D. Is not especially useful to scholars
  - E. Was invented to help make a particular point
3. Mary Astell is discussed by the author as an example of an eighteenth-century feminist historian
  - A. Who was representative of the intellectual interests of the woman historians of her time
  - B. Who inspired many practitioners of herstory in the twentieth century
  - C. Who shared with modern herstory a mistaken assumption regarding the writing of history
  - D. Whose major work aroused much controversy at the time of its publication
  - E. Whose major work still has not received the attention from scholars that it deserves
4. The author implies which of the following about Astell's supposition?
  - A. It is likely to have arisen because of Astell's unawareness of much of the historical work written by women.
  - B. It was one that Astell reconsidered after she wrote her own historical work.
  - C. It was one that was not shared by other feminist historians of Astell's time.
  - D. It was one that inspired Astell to write her own historical work.
  - E. It directly contradicts one of the basic claims of herstory.

## Passage 20

Until around 1930 few United States Civil War historians paid much attention to Southerners who



opposed the 1861-1865 secession from the United States by a confederacy of Southern states. Southern historians clung instead to a notion of the South's unanimity in the face of Northern aggression. Only when scholars such as Lonn decided to examine this side of the war did historians of the Confederacy begin to recognize the existence of Southerners loyal to the Union (Unionists). While these early historians of Southern dissent broke new ground, they also reproduced Confederate authorities' negative view of loyalists as shady characters driven by dubious motives. Even Tatum, who took a largely sympathetic attitude toward loyalists, tended to lump them into nebulous categories, offering broad generalizations that ignored the particulars of Unionists' identities and experiences.

This early-twentieth-century historiography nonetheless represented the leading research on dissent in the South until the 1960s and 1970s. Spurred by the advent of social historical methods, a new generation of historians found Unionists interesting as manifestations of the Confederacy's internal weaknesses. Focusing on the Appalachian Mountain and upper South regions of the Confederacy, these scholars argued that there was a profound divide among Southern Whites between those who benefited economically from slave-run plantations and those who did not. One such historian was Escott, who emphasized regional and economic conflict among Southerners. Escott cast Unionists and other dissenters as antiplanter mountaineers who could not, by reason of economic and social alienation, identify with the proslavery Southern cause. This theme has heavily influenced the work of subsequent scholars, who commonly place Unionists at the extreme end of a continuum of class-based Confederate disaffection that was ultimately responsible for the South's collapse. **Because the driving force behind such inquiries into loyalist history has been a desire to explain Confederate ideology, politics, and defeat, emphasis has been placed on the ways loyalist Southerners diverged from the political and economic mainstream of Confederate nationalism.**

Only recently have some **Civil War historians** begun to make Unionists and their experiences, rather than the Confederate state, the center of inquiry. These scholars have done intensive community and local studies of dissenting groups that take into account a range of social and cultural, as well as military and political, factors at work on the Southern home front. Hoping to better understand who remained loyal to the Union during the war, these historians have sought to explain the Civil War's underlying character, dimensions, and impact in particular counties or towns, especially in the upper South and Appalachia. This relatively new trend has stressed the particular, delved into the complexities of political allegiances on the home front, and, as Sutherland notes, highlighted "the gritty experience of real people."

1. The primary purpose of the passage is to
  - A. Summarize a particular debate among historians
  - B. Trace the evolution of a particular area of historical study
  - C. Challenge a common misconception about a particular historical period
  - D. Identify flaws in a particular approach to the study of a historical subject
  - E. Explain why a particular historical question has received little scholarly attention
2. The passage suggests that "some Civil War historians" would probably agree with which of the following statements about Southern Unionists?
  - A. Their economic circumstances were more significant than their social and cultural identities in determining their dissent from the Confederate cause.
  - B. Their significance to historians lies mainly in what their actions reveal about the mainstream of Confederate nationalism from which they departed
  - C. Their political allegiance must be understood in relation to specific local factors that affected their lives during the Civil War period
  - D. They were more likely to be from areas outside the upper South and Appalachia than were supporters of the Confederate cause
  - E. They were more likely to be from economically privileged groups than were supporters of the Confederate cause.
3. The passage suggests which of the following about histories of the Civil War written before 1930?
  - A. Some took a fairly sympathetic view of Southern Unionists.
  - B. Interest in these histories has been revived by the work of recent historians
  - C. Most offered little analysis of the lives and motives of Southern Unionists.
  - D. Many tended to group Southern Unionists into broad categories that obscured their differences
  - E. Few accepted the idea that the South was politically unified during the Civil War
4. Which of the following best describes the function of the highlighted sentence?
  - A. It challenges a common misconception about the motives driving an influential group of Civil War historians.
  - B. It describes a major contribution of the Civil War historians of the 1960s and 1970s that inspired the

next generation of scholars.

C. It calls attention to aspects of the Confederate cause that were alienating to those Southerners who remained loyal to the Union

D. It identifies a tendency in Civil War scholarship that more recent scholarship has moved away from

E. It explains how ideological and political aspects of the Confederacy loyalist Southerners to reject the Confederate cause

## Passage 21

In his recent book, Louis Gerteis argues that nineteenth-century Northern reformers in the United States attacked slavery in the South by invoking the values of a utilitarian political economy: proper public policy requires government to endorse anything that gives all people the opportunity to maximize their individual pleasure and their material gain. Social good, according to this thinking, is achieved when individuals are free to pursue their self-interests. Gerteis argues that, since slavery in the South precluded individual autonomy and the free pursuit of material gain, major Northern reformers opposed it as early as the 1830s.

In making this argument, Gerteis offers the most persuasive formulation to date of *the Growth of a Dissenting Minority* interpretation, which argues that a slow but steady evolution of a broad-based Northern antislavery coalition culminated in the presidential victory of the antislavery Lincoln in 1860. This interpretive framework, which once dominated antislavery historiography, had been discounted by historians for two basic reasons. First, it tended to homogenize the political diversity of Northern reformers; Northern reformers differed significantly among themselves and belonged to diverse political parties. Second, it seemed incompatible with emerging scholarship on the slaveholding South, which held that Northern abolitionists of the 1830s did not succeed in mobilizing Northern public opinion and paving the way for Lincoln in 1860. Instead, Southern slaveholders misconstrued abolitionist views of the 1830s as mainstream rather than marginal Northern public opinion, and castigated Northerners generally for opposing slavery. In this view, it was the castigation by Southerners that gradually caused widespread antislavery feeling throughout the North.

Gerteis revives the Growth interpretation by asserting that, rather than Southern attitudes, the unified commitment of Northern reformers to utilitarian values served to galvanize popular political support for abolitionism. However, unlike earlier proponents of the Growth interpretation, Gerteis does not reduce the Northern reformers to a homogeneous group or try to argue that the reformers shared views undermined their differing party loyalties. Members of the two major political parties still attacked each other for ideological differences. Nevertheless, Gerteis argues, these disparate party affiliations did not diminish the actuality of reformer unity, most prominent in the 1830s. At this time, Northern reformers, such as William Lloyd Garrison and Samuel Chase, portrayed the framers of the United States Constitution as proponents of individual autonomy and capitalist values. This vision of the founders served as a basis for asserting that freedom was a national moral imperative, and that the United States Constitution was an antislavery document. Gerteis differs from traditional adherents of the Growth framework by asserting that the basic elements in the antislavery coalition were firmly in place and accepted by all elements in the Northern reform community as early as the late 1830s.

1. The passage is primarily concerned with

- A. Criticizing adherents of a traditional view for overlooking important data
- B. Reconciling two different explanations for the same phenomenon
- C. Describing a reformulation of a traditional interpretation
- D. Advocating a traditional approach to a controversial subject
- E. Suggesting that a new interpretation is based on faulty assumptions

2. The author would be most likely to agree with which of the following about Gerteis formulation of the Growth interpretation?

- A. It is too similar to the traditional version of the Growth interpretation.
- B. It is of dubious validity and does not expand research on the antislavery movement.
- C. It is strongly supported by recent research on the nineteenth-century South.
- D. It is more convincing than the traditional version of the Growth interpretation.
- E. It is seminal work that will be highly influential on future research.

3. The passage supports which of the following statements about the Growth interpretation?

- A. It had been dismissed by earlier historians but has recently come to dominate antislavery historiography.

- B. It has recently received support from emerging scholarship on the nineteenth-century South.
- C. It was once very influential in antislavery historiography and has recently been reformulated.
- D. It has always been highly controversial and is still widely debated by historians.
- E. It has recently been discounted by emerging scholarship on utilitarian values in the nineteenth-century South.

4. Which of the following, if true, would provide the LEAST support for Gerteis' arguments as they are discussed in the passage?

- A. In the 1870s, following the abolition of slavery, many Northerners remained unified in their desire to see an effective free-labor system implemented in the South.
- B. As early as the 1830s, Northern abolitionists and Northern reformers with a commitment to utilitarian values began to agree that the United States Constitution was an important antislavery document.
- C. Many Northern reformers who disagreed about political policies argued that abolishing slavery should be a central goal of the United States government.
- D. As early as 1836, many Northern reformers argued that slavery destroyed individuals' ability to pursue their self-interests and thwarted the free pursuit of material gain.
- E. Owing to their different party allegiances, Northern reformers who shared utilitarian values did not join together in important collective actions against slavery.

5. The author of the passage mentions "emerging scholarship" most probably in order to

- A. describe an argument that has been advanced to challenge the "Growth" interpretation
- B. show how Gerteis has used recent research to support his formulation of the "Growth" interpretation
- C. explain how the "Growth" interpretation was originally developed
- D. discuss a theory about the nineteenth century North that is very similar to the "Growth" interpretation
- E. suggest that the "Growth" interpretation is no longer discussed among historians

## Passage 22

Historian E.H Carr's thesis that all debates concerning the explanation of historical phenomena revolve around the question of the priority of causes is so familiar to historians as to constitute orthodoxy within their profession. The true historian, as Carr puts it, will feel a professional obligation to place the multiple causes of a historical event in a hierarchy by means of which the primary or ultimate cause of the event can be identified. In the Marxist mode of historical explanation (historical materialism), a universal hierarchy of causes is posited in which economic factors are always primary. In the classic, more widely accepted alternative ultimately derived from Weberian sociology, hierarchies of causes are treated as historically specific: explanatory primacy in any particular historical situation must be established by empirical investigation of that situation, not by applying a universal model of historical causation.

While the need to rank historical causes in some order of importance may seem obvious to most historians, such hierarchies raise serious philosophical difficulties. If any historical event is the product of a number of factors, then each of these factor is indispensable to the occurrence of the event. But how can one cause be more indispensable than another? And if it cannot, how can there be a hierarchy of indispensable causes? It was this problem that first led Weber himself to argue for the impossibility of any general formula specifying the relative importance of causes; we cannot, for example, conclude that in every capitalist society religious change has been more significant than economic change (or *vice versa*) in explaining the rise of capitalism.

Runciman offers a different argument leading to the same conclusion. He points out that it is possible to identify specific factors as the primary causes of a particular historical event only relative to an initial set of background conditions. For instance, if we accept English defeats after 1369 in the Hundred Years War as a given, then we may identify the high levels of taxation necessitated by these military reverses as the main cause of the Peasants Revolt of 1381. If instead we regard the financing of warfare by taxation in this period as a background condition, then we will see the English reverses themselves as the main cause of the revolt. However, neither ordinary life nor historical practice offer reliable criteria by which to distinguish causes from background conditions and thus to resolve historical debates about the relative importance of causes. And this difficulty casts doubt not only on the Marxist effort to identify a universal hierarchy of causes, but also on any attempt to identify an

objective hierarchy of causes—even of the historically specific kind favored by non-Marxists.

1. The primary purpose of the passage is to
  - A. Compare two prominent modes of historical explanation
  - B. Undermine non-Marxist objections to the historical-materialist explanatory model of historical causation
  - C. Analyze ways in which the question of historical causation can be illuminated by Weberian sociology
  - D. Challenge an orthodox position concerning historical explanation
  - E. Argue that historical analysis should rely more on empirical investigation than on philosophical reflection.
2. According to the passage, most historians share the assumption that
  - A. The most useful current model of historical causation is the historical-materialist model
  - B. Explaining a historical event requires ranking its causes by importance
  - C. The same hierarchy of causes underlies every historical event
  - D. Philosophical debates have limited utility for historical practice
  - E. Different causes of the same historical event sometimes have the same importance
3. In the second paragraph of the passage, the author uses the concept of an indispensable cause primarily in order to question which of the following claims?
  - A. Generalizations about the origins of capitalist societies are defensible.
  - B. The study of history is largely independent of philosophical concerns.
  - C. A universal model of historical causation is indefensible.
  - D. A historical event is caused by many factors.
  - E. A hierarchy of the causes of a historical event can be determined.
4. Which of the following best describes the organization of the passage?
  - A. An assumption is identified and called into question.
  - B. Opposing views are compared, contrasted, and shown to be compatible.
  - C. An argument is advanced, criticized, and then revised.
  - D. A theory is shown to be superior to its chief rival.
  - E. Similar arguments are shown to lead to different conclusions.

### Passage 23

Modern feminism has brought the reputation of the English writer Mary Wollstonecraft (1759-1797) to something approaching the luster it deserves. While she enjoyed a certain celebrity among political radicals in the years just after her death, beginning in the nineteenth century her fame as a writer was hidden by disproportionate attention to her unconventional and, at the time, shocking personal life. When, therefore, Virginia Woolf wrote in 1925 of Wollstonecraft's *A Vindication of the Rights of Men* and *A Vindication of the Rights of Woman* that they felt like books so true that they seem now to contain nothing new in them, it was more a wishful than an accurate statement of the case. Wollstonecraft's advances in moral thinking still have the power to shock position-takers of every party. The importance of gender even today is said to cut across other criteria for judging the conduct of men and women in society; Wollstonecraft, by contrast, believed that the shared morality of men and women should cut across all specifications of gender.

Wollstonecraft considered gender-based morality a relic of a barbarous age: part of that specialization of virtues by which every sexual feeling was expected to express itself as libertinism (in men) or false modesty (in women). In her view, there ought to be one criterion of morals for men and women alike, with both sexes cultivating the same virtues. Wollstonecraft rebelled against the copious sentimental literature of her own time, which she felt patronized women by insisting that it was to their advantage to affect chastity and modesty and that such virtues were their own reward.

In *The Rights of Men*, Wollstonecraft explores this double standard from an unexpected angle. It was the first major response to Edmund Burke's *Reflections on the Revolution in France* (1790), appearing less than a month after that impassioned defense of the deposed French monarchy. A defender of Burke's called Wollstonecraft's book **an incoherent mass of treacherous candour, interested generosity, and, if not false, at least unnecessary accusation**. But Wollstonecraft nonetheless managed to show how the traditionally feminine virtues of sentimental morality had been transferred by Burke to the aristocracy. Burke's rhapsody on the queen of France (glittering like the

morning star, full of life, and splendor, and joy) was, for Wollstonecraft, an example of the argument that beauty and instinct must often prevail over reason, the argument on which Burke took his stand as a defender of the old order. Like women, Burke thought, and from a similar greatness and delicacy in their nature, the aristocracy were understood at once to require deference and to solicit compassion. To Wollstonecraft, Burke's argument linked sympathy and power in a dangerous alliance; she insisted that aristocrats do not deserve to be treated in the way that women have traditionally been treated any more than women themselves do.

1. By quoting Burke's defender in the highlighted phrase, the author of the passage most clearly succeeds in
  - A. Providing a context for the political turbulence that unseated the French monarchy
  - B. Emphasizing the way in which Wollstonecraft's philosophy divided men and women
  - C. Explaining why Wollstonecraft's work has won more acceptance in the twentieth century than in the nineteenth
  - D. Illustrating the nature of the appeal of Burke's argument
  - E. Demonstrating the degree of hostility aroused by Wollstonecraft's work
2. The author of the passage quotes Burke's description of the queen of France most probably in order to
  - A. Provide a specific illustration of a position with which Wollstonecraft took issue
  - B. Provide a specific example of Burke's already archaic prose style
  - C. Balance the quotation from Burke's anonymous defender
  - D. Provide evidence of why Burke's position was more widely accepted than Wollstonecraft's
  - E. Provide an example of what Wollstonecraft perceived as Burke's lack of political astuteness
3. The passage suggests that which of the following is true concerning Virginia Woolf's appraisal of *A Vindication of the Rights of Men* and *A Vindication of the Rights of Woman*?
  - A. Woolf was defending Wollstonecraft's theories against attacks by nineteenth-century critics who concentrated only on Wollstonecraft's notoriety.
  - B. Woolf favored the advances proposed by Wollstonecraft and mistakenly assumed that they had become self-evident in the twentieth century.
  - C. Woolf miscalculated the practical effects that the advances proposed by Wollstonecraft would have on society.
  - D. Woolf decried the loss in the twentieth-century of social progress made in the eighteenth and nineteenth centuries.
  - E. Woolf was reacting against what she considered a lack of originality on Wollstonecraft's part while calling for more sweeping changes than Wollstonecraft had proposed.
4. The author of the passage suggests that modern feminism has treated the writings of Mary Wollstonecraft in which of the following ways?
  - A. Modern feminism has emphasized the progressive aspects of Wollstonecraft's writings, while separating her work from her personal reputation.
  - B. Modern feminism has emphasized Wollstonecraft's importance as a theorist, while deemphasizing her effect on the daily life of her times.
  - C. Modern feminism has worked toward a synthesis of Wollstonecraft's philosophical advances with those of her contemporaries.
  - D. Modern feminism has embraced Wollstonecraft's relative importance as a theorist, while rejecting certain elements of her theories of gender-based morality.
  - E. Modern feminism has equated Wollstonecraft's ideas about the popular sentimentalization of women with her view of monarchist systems of government.

#### Passage 24

A primary value in early twentieth-century Modernist architectural theory was that of "truth to materials," that is, it was essential that a building's design express the "natural" character of the building materials. This emphasis would have puzzled the architects of the Italian Renaissance (sixteenth century), a period widely regarded as the apex of architectural achievement, for Renaissance architects' designs were determined only minimally by the materials employed. The diversity of Italy's natural resources provided Renaissance architects with a wide variety of building materials. The builders of the Pitti Palace (1558 – 1570) used great blocks of Tuscan stone, just as Etruscans living in

the same part of Italy had done some twenty centuries earlier. Had the Florentine Renaissance builders aped the Etruscan style, it might be said that their materials determined their style, since Etruscan style matched the massive, stark, solid character of the stone. But these same materials, which so suited the Etruscan style, were effectively used by the Florentine Renaissance to create the most delicate and graceful styles.

A similar example of identical materials used in contrasting styles characterizes the treatment of Roman travertine marble. When Baroque architects of seventeenth-century Rome desired a massive and solid monumental effect, they turned to travertine marble, whose “natural effect” is, indeed, that of spacious breadth and lofty, smoothly rounded surfaces. Yet during the Renaissance, this same material had been used against its “nature,” in the Florentine tradition of sharply carved detail. Italian Renaissance architecture was shaped less by the “nature” of the materials at hand than by the artistic milieu of Renaissance Italy, which included painting and sculpture as well as architecture. While Roman travertine marble may have lent itself to fine carving, the Florentine passion for fine detail is no less marked in Florentine Renaissance painting than in Florentine Renaissance architecture. Similarly, in the next century, the emphasis on shading and corporeal density in Baroque painting mirrored the use of Roman travertine marble in Baroque architecture to create broad shadow and powerful masses.

The ingenuity of Renaissance architects extended beyond merely using a material in a way not suggested by its outward natural appearance. If they conceived a design that called for a certain material either too expensive or difficult to work with, they made no scruple about imitating that material. Their marbles and their stones are often actually painted stucco. When the blocks of masonry with which they built were not in scale with the projected scheme, the real joints were concealed and false ones introduced. Nor were these practices confined, as **some scholars** insist, to the latter and supposedly decadent phases of the art. Material, then, was utterly subservient to style.

1. The passage is primarily concerned with
  - A. explaining the differences in quality among different kinds of building materials
  - B. discussing the differences among Etruscan, Florentine Renaissance, and Roman Baroque architecture
  - C. describing how different materials influenced architecture in different cities
  - D. describing the manner in which Renaissance architects often resorted to artificial materials and illusionistic effects
  - E. demonstrating the attitude of sixteenth- and seventeenth-century Italian architects toward the use of building materials
2. It can be inferred from the passage that the author believes that which of the following is true of painting and architecture of the Baroque era?
  - A. Both emphasize the “natural” use of materials
  - B. Both are derived from the Florentine Renaissance style
  - C. Both have been overlooked by twentieth-century Modernists.
  - D. They have certain visual features in common
  - E. They illustrate the degeneration of a style
3. The author’s mention of Florentine painting serves in the context of the passage to support which of the following assertions?
  - A. The constraints that operate in architecture are different from those that operate in painting.
  - B. Florentine architectural style was not determined by the nature of the available marble.
  - C. The Florentine Renaissance period was a period in which the other arts achieved the same distinction as did architecture.
  - D. Technical advances in all of the arts of the Florentine Renaissance determined the stylistic qualities of those arts.
  - E. Native preferences of style do not manifest themselves in the same ways in different arts
4. The passage suggests which of the following about the cited “scholars?”
  - A. They believe that a decadent phase is characteristic of any significant artistic movement.
  - B. They reject the popular view of the Renaissance as the apex of architectural achievement.
  - C. They believe that a vigorous and healthy architecture would not usually employ false surfaces or imitation building materials.
  - D. They represent the mainstream in critical and historical thought about the Florentine Renaissance
  - E. They have focused on such technical matters as the cost of building materials rather than on artistic concerns

## Passage 25

Architectural morphology is the study of how shifting cultural and environmental conditions produce changes in an architectural form. When applied to the mission churches of New Mexico exemplifying seventeenth- and eighteenth-century Spanish colonial architecture in what is now the southwestern United States, architectural morphology reveals much about how Native American culture transformed the traditional European church architecture of the Spanish missionaries who hoped to convert Native Americans to Christianity.

Many studies of these mission churches have carefully documented the history and design of their unique architectural form. Most attribute the churches' radical departure from their sixteenth-century European predecessors to local climate and a less-mechanized building technology. Certainly, the limitations imposed by manual labor and the locally available materials of mud-brick and timber necessitated a divergence from the original European church model. However, the emergence of a church form suited to life in the Southwest was rooted in something more fundamental than material and technique. The new architecture resulted from cultural forces in both the Spanish colonial and indigenous Native American societies, each with competing ideas about form and space and different ways of conveying these ideas symbolically.

For example, the mission churches share certain spatial qualities with the indigenous kiva, a round, partly subterranean room used by many Southwest Native American communities for important rituals. Like the kiva it was intended to replace, the typical mission church had thick walls of adobe (sun-dried earth and straw), a beaten-earth floor, and one or two small windows. In deference to European custom, the ceilings of these churches were higher than those of traditional kiva. However, with the limited lighting afforded by their few small windows, these churches still suggest the kiva's characteristically low, boxlike, earth-hugging interior. Thus, although pragmatic factors of construction may have contributed to the shaping of mission churches, as earlier studies suggest, the provision of a sacred place consistent with indigenous traditions may also have been an important consideration in their design.

The continued viability of the kiva itself in Spanish mission settlements has also been underestimated by historians. Freestanding kivas discovered in the ruins of European-style missionary communities have been explained by **some historians** as examples of "superstition." Under this theory, Christian domination over indigenous faiths is dramatized by surrounding the kiva with Christian buildings. However, as James Ivey points out, such superstition was unlikely, since historical records indicate that most Spanish missionaries, arriving the Southwest with little or no military support, wisely adopted a somewhat conciliatory attitude toward the use of the kiva at least initially. This fact, and the careful, solitary placement of the kiva in the center of the mission-complex courtyards, suggests an intention to highlight the importance of the kiva rather than to diminish it.

1. The primary purpose of the passage is to
  - A. correct some misinterpretations about the development of an architectural form
  - B. compare the traditional church architectures of two different cultures
  - C. examine the influence of a religious architectural style on secular buildings
  - D. explain the nature of the contrast between two different architectural styles
  - E. trace the European roots of an architectural style used in the United States
2. The passage suggests that the indicated historians regarded the placement of kivas in the midst of Christian buildings as which of the following?
  - A. exemplary of an arrangement of religious buildings typical of a kind of Native American architecture common prior to the arrival of the Spanish
  - B. largely responsible for the evolution of a distinctive Spanish mission architectural style
  - C. indicative of the Spanish missionaries' desire to play an attitude of acceptance toward the kiva
  - D. symbolic of the controversy among Spanish missionaries in New Mexico regarding their treatment of the indigenous population
  - E. reflective of the Spanish missionaries' desire to diminish the kiva's importance
3. Which of the following, if true, would most strengthen the argument about the Spanish missionaries' attitude toward the kiva?
  - A. The period of the most intensive settlement by Spanish missionaries in the Southwest occurred before the period in which the mission churches of New Mexico were built.
  - B. There are no traces of kivas in Spanish mission settlements that were protected by a large military presence.
  - C. Little of the secular Spanish colonial architecture of the Southwest of the seventeenth and eighteenth

centuries is predominantly European in style.

D. Some Spanish missionary communities of the seventeenth and eighteenth centuries were attached to Spanish military installations

E. New Mexico contains by far the largest concentration of Spanish mission-style church architecture in the United States

4. According to the passage, the building techniques prevailing in the Southwest during the seventeenth and eighteenth centuries played a role in which of the following?

A. preventing missionaries in the Southwest from duplicating traditional European churches

B. influencing missionaries in the Southwest to incorporate a freestanding kiva into certain mission settlements

C. Causing missionaries in the Southwest to limit the building of churches to New Mexico only

D. Jeopardizing the viability of Spanish religious settlements throughout the Southwest

E. Encouraging many missionaries in the Southwest to reexamine the continued viability of a highly ceremonial European religious tradition

## Passage 26

By far the most popular United States literature of its time was a body of now-neglected novels written between 1820 and 1870 by, for, and about women. According to Nina Baym, who has termed this genre “woman’s fiction,” the massive popularity of these novels claimed a place for women in the writing profession. The novels chronicle the experiences of women who, beset with hardships, find within themselves qualities of intelligence, will, resourcefulness, and courage sufficient to overcome their obstacles. According to Baym, the genre began with Catharine Sedgewick’s *New England Tale* (1822), manifested itself as the best-selling reading matter of the American public in the unprecedented sales of Susan Warner’s *Wide, Wide World* (1850), and remained a dominant fictional type until after 1870. The critical, as opposed to popular, reception of these novels in their own times was mixed. Theoretical opposition by those who saw fiction as a demoralizing and corrupting influence was by no means dead in mid-nineteenth-century America, and popular successes naturally bore a significant proportion of the attack. The moralistic tone of much woman’s fiction did not placate these antagonists; on the contrary, many clerical opponents of the novel thought that women were trying to take over the clergy’s functions and hence attacked all the more fiercely. Similarly, some male authors, disgruntled by the emergence of great numbers of women writers, expressed contempt for the genre.

On the other hand, the women had a powerfully ally—their publishers, who not only put these works into print but advertised them widely and enthusiastically. Some few reviewers wrote about these works with attention and respect, distinguishing between the works of the different authors and identifying individual strengths and weaknesses. These approving contemporary critics were particularly alert to each writer’s contribution to the depiction of American social life, especially to regional differences in manners and character types. On the whole, however, even these laudatory critics showed themselves uninterested in the stories that this fiction told, or in their significance.

Baym acknowledges that these novels are telling—with variations—a single familiar tale, and correctly notes that this apparent lack of artistic innovation has been partly responsible for their author’s exclusion from the canon of classic American writers traditionally studied in university literature courses. Baym points out, however, that unlike such male contemporaries as Nathaniel Hawthorne, these women did not conceive of themselves as “artists”, but rather as professional writers with work to do and a living to be made from fulfilling an obligation to their audience. This obligation included both entertainment and instruction, which are not, says Baym, at odds with one another in these books, nor is entertainment the sweet coating on a didactic pill. Rather, the lesson itself is an entertainment: the central character’s triumph over adversity is profoundly pleasurable to those readers who identify with her.

1. The passage is primarily concerned with

A. Summarizing the major contributions of two influential writers

B. Describing and commenting on a group of literary works

C. Summarizing the major events of a period of literary history

D. Contrasting two types of literary works from the same era

E. Arguing for the adopting of several neglected literary works into university curriculums

2. The author of the passage cites Susan Warner’s *Wide, Wide World* most probably as an example of a woman’s novel that



- A. Had more advanced artistic elements than many of its type
  - B. Attracted an excessive amount of critical attention
  - C. Was found to be inappropriately moralistic by many members of the clergy
  - D. Was significant as an indicator of the genre's popularity
  - E. Signaled the gradual decline of the size of the genre's audience
3. The author of the passage implies which of the following about the members of the clergy mentioned in the first paragraph?
- A. They also opposed works of fiction that were outside the genre of woman's fiction
  - B. They opposed journalism as well as imaginative writing
  - C. Their influence reached its pinnacle in the mid-nineteen-century
  - D. They were unable to obtain the support of other critics for their views
  - E. Their attacks on the genre of the novel did not extend to novels written by male writers.
4. Which of the following can be inferred from the passage concerning the majority of the nineteen-century reviewers of woman's fiction?
- A. They considered the position taken by the clergy in regard to woman's fiction self-serving
  - B. They did not make fine distinctions between different authors
  - C. They placed a higher value on plot than on social significance
  - D. They subscribed to the view of writers as purveyors of popular entertainment rather than as artists.
  - E. They lacked interest in the plot and in the significance of the woman's fiction.

### Passage 27

*This passage is adapted from material published in 1993.*

The recent recognition of a link between increasing rates of deforestation and increasing global climatic warming has focused new attention on the ecological role of forests. Deforestation threatens the continued existence of forest, and their loss would lead to an immediate, irreversible destabilization of the climate because the destruction of forests contributes to increased atmospheric concentrations of such heat-trapping gases as carbon dioxide and therefore to the acceleration of global warming.

The world is at present accumulating carbon dioxide in the atmosphere from two well-known sources: the combustion of fossil fuels and deforestation. Deforestation results in higher levels of carbon dioxide in the atmosphere because the carbon stored in plants and trees is released when trees decay or are burned. A third source, the warming-enhanced decay of organic matter in forest and soils, especially in the middle and higher latitudes, is now being recognized as potentially significant. Evidence is accumulating that carbon from this source is beginning to have global effects. Thus, two of the three sources of carbon dioxide in the atmosphere are directly related to the survival and health of forests. In the discussion about the importance of forest, however, emphasis has fallen on biodiversity, of numbers of species per unit area, especially in the tropics, where such diversity is particularly high. But forests, it should be emphasized, have a similar role in every latitude. They contain the largest number of different kinds of plants and animals of any community on land and might be considered the most highly developed of the terrestrial communities from the standpoint of complexity of structure and diversity of life and life-forms. Forests are far more than simple collections of species, however, so it is unfortunate that the discussion of biotic or living resources has been focused on biodiversity rather than on the actual ability of the land itself to support life. In order for the complete range of plant and animal life to thrive, the soil must contain essential nutrients in their proper quantities and proportions, and the atmosphere must be composed of the correct molecules in their proper proportions. If the soil

were to become infertile and the atmosphere inhospitable, more than mere diversity or numbers of species would be lost the land would become impoverished and on longer be able to support any life.

Deforestation almost invariably speeds erosion and the loss of nutrients into water courses. It also, as previous explained, involves a release of carbon into the atmosphere. Forests thus play a clear and critical role in helping to protect the capacity of the land to support life by increasing the retention of nutrients and in helping to stabilize the atmosphere by storing carbon.

1. The passage is primarily concerned with discussing the
  - A. Importance of forests for protecting the land and atmosphere
  - B. Role of forests in the tropics versus that in the higher latitude CD process of deforestation in the tropics.
  - C. Process of deforestation in the tropics.
  - D. Need for forest to ensure the preservation of biodiversity
  - E. Negative effects of recent global climatic changes on forest.
2. According to the passage, the emphasis on preserving biodiversity in forests has had which of the following effects?
  - A. led to recognition of the causes complexity of terrestrial communities
  - B. led to an understanding of the causes of accelerated rates of global warming
  - C. resulted in the formulation of the concept of biotic resources
  - D. shifted attention away from the role of forests in stopping the accumulation of carbon dioxide in the atmosphere
  - E. resulted in greater diversity in tropical forests
3. The passage suggests that the emphasis on a forest biodiversity has had which of the following unfortunate consequences?
  - A. It has fostered the view that fosters have a similar role in every climate.
  - B. It has fostered the view that deforestation almost invariably speeds erosion.
  - C. It has fostered resistance to preserving any forests but tropical ones.
  - D. It has led to an increase in the rate at which the land is becoming impoverished.
  - E. It has led to an underestimation of the importance of some forests.
4. The primary purpose of the third paragraph of the passage is to
  - A. explain how the land supports life
  - B. explain what happens when soil becomes infertile
  - C. explain why a certain development in the discussion of the importance of forests is regrettable.
  - D. show that forest are far more than simple collections of species.
  - E. argue that forests with a small number of species are more important to the support of life than forest with many species.

Roughly 250 million years ago, in the worst series of mass extinctions in Earth's history, almost all species of life simply vanished. The traditionally held view has been that these extinctions occurred gradually, as changing environmental conditions—global cooling, global warming, dropping sea levels, or some combination of such factors—made life increasingly difficult during the last stages of the Permian period (284-245 million years ago). As Permian life-forms declined, they reached a fatal threshold and species succumbed to mass extinction. Supporters of the traditionalist view note that species began disappearing from the fossil record well before the end of the Permian period. Yet, while such a pattern could have resulted from a slowly rising extinction rate, some **scientists** argue that just because a species disappears from the fossil record doesn't necessarily mean it became extinct at that point. Moreover, Paul Wignall and others have found sites where marine fossil deposits reached a peak of diversity at the very end of the Permian period. Thus, Wignall believes late-Permian marine life was thriving until it was decimated suddenly by some catastrophe.

Some geoscientists think that this catastrophe involved a meteor striking the earth. Michael Rampino, for instance, claims that a giant meteor crashed into Gondwanaland (the southern portion of the supercontinent Pangea, which covered about 30 percent of the globe in Permian times), setting off intense volcanism. Airborne soot and dirt from the impact blanketed Earth, inhibiting photosynthesis and triggering mass extinction of species. This view is widely disputed by traditionalists, however. Grant Young, for example, holds that the gradual breakup of the Pangean supercontinent triggered widespread climatic change and glaciation, causing the Permian mass extinctions to occur over millions of years. Glaciation, Young claims, has occurred throughout Earth's history, and there is evidence that it occurred toward the end of the Permian period. Yet Rampino and others question one of the traditionalists' basic assumptions: the periodic occurrence of glaciation throughout Earth's history. Crucial evidence includes the rock deposits known as tillites, because they resemble the unstratified drift produced by modern glaciers, geologists have long considered tillites to be signposts of glaciation. When trying to determine whether particular sedimentary layers represent tillite deposits, geologists look for stones with faceted shapes, scratched surfaces, and other features that presumably resulted from glacial action. The problem with ascribing all tillites to glaciation, however, is that tillite deposits are widespread in Precambrian sediments. Yet temperatures during the Precambrian (3.8 billion to 540 million years ago) are thought to have been warmer than those in today's nonglacial world. Thus, Rampino thinks that certain tillites were produced by meteor impacts, not glaciers. The first compelling evidence that meteor impacts might have produced tillites came from Moon rocks that showed the same features as earthly tillites. Since no one believes the Moon ever had glaciers, that leaves but one possible cause: impacts.

1. The primary purpose of the passage is to
  - A. consider new applications for a traditional methodology
  - B. present a challenge to an established idea
  - C. question the purported certainty of a particular phenomenon
  - D. discuss the implications of a controversial position
  - E. identify similarities underlying two contrasting arguments
2. According to the passage, the claim that all terrestrial tillites resulted from glacial action is undermined by the
  - A. surface features of most terrestrial tillites
  - B. resemblance that exists between terrestrial tillites and unstratified drift
  - C. number of terrestrial tillites that date from the Precambrian period
  - D. number of terrestrial tillites that date from the Permian period
  - E. fact that most terrestrial tillites are found in sedimentary deposits
3. It can be inferred from the passage that the author would agree that the similarity between terrestrial tillites and certain Moon rocks is significant because this similarity
  - A. suggest that it is unlikely that glaciers have produced tillites on Earth
  - B. suggest that the rate of meteor impacts on the Moon is much higher than previously thought
  - C. provides the first compelling evidence that the Moon has experienced meteor impacts
  - D. supports Rampino's explanation regarding the origin of certain terrestrial tillites
  - F. supports Young's claim, regarding the periodic occurrence of glaciers throughout Earth's history
4. The passage suggests that the supporters of the traditional view would be most likely to disagree with the "scientists" over which of the following regarding the fossil record during the Permian period?
  - A. The number of species that disappeared from the fossil record during the Permian period
  - B. The significance of a species disappearance from the fossil record during the Permian period
  - C. The point in time at which species began disappearing from the fossil record during the Permian period

- D. The likelihood that the fossil record during the Permian period will be supplemented by new fossil discoveries
- E. The likelihood that the fossil record during the Permian period is as accurate as the fossil records of other periods

### Passage 29

For most of the twentieth century, scholars generally accepted the proposition that nations are enduring entities that predated the rise of modern nation-states and that provided the social and cultural foundations of the state. This perspective has certainly been applied to Korea: most historians have assumed that the Korean nation has existed since the dawn of historical time. In recent years, however, Western scholars have questioned the idea of the nation as an enduring entity. Both Gellner and Anderson have argued, in their studies of **European, Latin American, and Southeast Asian** cases, that the nation is strictly a modern phenomenon, a forging of a common sense of identity among previously disparate social groups through the propagandizing efforts of activist intellectuals and the homogenizing organizational activities of the modern state. In short, it was the state that created the nation, not the other way around.

Younger Koreanists, with Em prominent among them, have begun to apply this approach to Korea. These scholars, noting the isolated nature of village life in premodern Korea and the sharp difference in regional dialects, suggest that ordinary villagers could not possibly have thought of themselves as fellow countrymen of villagers in other regions. These scholars also note that elites, conversely, often had outward-looking, universalistic orientations, as did aristocracies elsewhere, such as in premodern Europe. **Finally, they observe that the very word for “nation” in Korean, minjok, is a neologism first employed by Japanese scholars as a translation of the Western concept and that it was first appropriated by Korean activists in the early twentieth century.** They argue, therefore, that a Korean “nation” came into being only after that time.

In short, in the case of Korea we have an argument between “primordialists,” who contend that nations are natural and universal units of history, and “modernists,” who assert that nations are historically contingent products of modernity. The positions of both groups seem problematic. It seems unlikely that in the seventh century the popes of the warring states of Koguryo, Paekche, and Shilla all thought of themselves as members of a larger “Korean” collectivity. On the other hand, the inhabitants of the Korean peninsula had a much longer history—well over one thousand years—as a unified political collectivity than did the peoples studied by Gellner and Anderson. Not only does the remarkable endurance of the Korean state imply some sort of social and cultural basis for that unity, but the nature of the premodern Korean state as a centralized bureaucratic polity also suggests the possibility that the organizational activities of the state may have created a homogenous collectivity with a sense of shared identity much earlier than happened in the countries of western Europe that provided the model for “modernist” scholarship.

1. The primary purpose of the passage is to
  - A. evaluate two competing views regarding the origin of the Korean nation
  - B. rebut a controversial perspective on the origin of the Korean nation
  - C. question the idea of the Korean nation as an enduring entity
  - D. consider the influence of the modernist position on younger Koreanists
  - E. explain some of the unique features of the Korean nation
2. Select the sentence in the third paragraph that provides information that supports the position of younger Koreanist regarding the creation of the Korean nation.
3. The author would probably agree with which of the following statements regarding the work of Gellner and of Anderson?
  - A. Neither Gellner’s nor Anderson’s work has had a significant influence on the study of the Korean nation.
  - B. Their argument that the nation is a strictly modern phenomenon does not hold in the case of Korea.
  - C. Both of them have downplayed the propagandizing efforts of Korean intellectuals as means of forging a Korean identity.
  - D. Both of them have exaggerated the homogenizing impact of the state as a factor in the creation of nations.
  - E. Both of them have overestimated the extent to which disparate social groups find a common sense of

identity through belonging to the same nation.

4. According to the author of the passage, a difference between Korea and the “European, Latin American, and Southeast Asian cases” has to do with
- A. the extent of the differences among various regional dialects prior to the establishment of a national language
  - B. the number of disparate social groups that existed prior to the creation of a national identity
  - C. when a nationally unified political entity came into existence
  - D. whether the bureaucratic state played a role in the creation of the nation
  - E. the extent to which the creation of the nation fostered significantly greater social and cultural unity
5. Regarding the observation discussed in the highlighted sentence, the author would probably agree with which of the following statements?
- A. It tells more about the nature of the Korean language than it does about the creation of the Korean nation in the twentieth century.
  - B. It contradicts the idea that Korean elites had outward-looking, universalistic orientations.
  - C. It shows the inappropriateness of trying to apply Western concepts to the Korean experience.
  - D. It may be true, but it does not mean that the creation of the Korean nation is a twentieth-century phenomenon.
  - E. It testifies to the influence of Western and Japanese thinking on the origin of the Korean nation.

### Passage 30

Wild Diana monkeys are preyed upon by leopards and chimpanzees. These two predators differ in their hunting tactics and Diana monkeys use two distinct anti predator strategies to defend themselves. After detecting a leopard, Diana monkeys respond by giving loud, conspicuous alarm calls that function both to warn others and to signal to the predator that it has been detected. Leopards tend to leave the area once they have been discovered. In contrast, upon detecting a chimpanzee, male Diana monkeys do not vocalize at all, while females give only a few quiet alarm calls and flee quickly to hide in the forest canopy. Chimpanzees have **sophisticated climbing skills** that would allow them to pursue monkeys, even in the high strata of the forest canopy.

Choosing an anti predator strategy appropriate to chimpanzees is complicated for Diana monkeys by the fact that chimpanzees themselves also fall prey to leopards. When encountering a leopard, chimpanzees give loud, conspicuous alarm calls. To escape successfully from leopards and chimpanzees, therefore, Diana monkeys must distinguish between, and respond differently to, chimpanzee alarm calls and chimpanzee vocalizations given in non-predatory situations. Usually chimpanzee vocalizations simply signal the presence of chimpanzees, which should cause the monkeys to flee quietly, while chimpanzees’ alarm screams additionally signal the presence of a leopard and should elicit the monkeys’ **loud, conspicuous alarm calls**.

To investigate Diana monkeys’ understanding of such cause-effect relationships involving predators, Zuberbühler examined the monkeys’ responses to chimpanzee vocalizations in two different types of experiments. In the first, he played tape recordings of either chimpanzees’ alarm calls or their social vocalizations and noted the monkeys’ responses. Diana monkeys differed their response to chimpanzees’ alarm calls. In some groups, monkeys behaved as if they recognized that these alarm calls signaled the potential presence of a leopard: they responded to chimpanzees’ leopard alarm calls by giving leopard alarm calls themselves, in contrast to their normal response to the presence of chimpanzees. Groups of monkeys living in the core area of the resident chimpanzee community were more likely to behave in this way than were peripheral groups.

In the second set of experiments, Zuberbühler played leopard growls to Diana monkeys shortly after exposing them to recordings of either chimpanzees’ alarm calls or their social vocalizations. After first hearing chimpanzees’ alarm calls, some monkeys failed to respond to the subsequent recording of leopard growls, even though this stimulus normally elicited a strong vocal response. **These monkeys behaved exactly like the Diana monkeys in a comparison group, who also gave many leopard alarm calls to an initial recording of leopard growls but no longer called to the second recording of leopard growls five minutes later.** This similarity in behavior suggests that these monkeys had some knowledge of the causal factors underlying the production of chimpanzees’ alarm calls.

1. According to the passage, the behavior of male and female Diana monkeys differed in that female Diana monkeys
  - A. give alarm calls upon detecting a chimpanzee
  - B. hide in the forest canopy upon detecting a leopard
  - C. give loud alarm calls in response to chimpanzees' alarm calls
  - D. give loud, conspicuous alarm calls upon detecting a leopard
  - E. respond differently to the presence of leopards than that do to the presence of chimpanzees
  
2. It can be inferred that the purpose of the highlighted "loud, conspicuous alarm calls" is in part to
  - A. cause the chimpanzees to leave the area
  - B. warn other monkeys of the presence of the chimpanzees
  - C. enable chimpanzees to flee quietly from the leopard
  - D. signal to the chimpanzees that they have been detected
  - E. signal to the leopard that it has been detected by the monkeys
  
3. Which of the following best describes the function of the highlighted sentence in the context of the passage as a whole?
  - A. To summarize the results of the the experiments described in the last paragraph
  - B. To suggest a distinction between the monkeys described in the preceding paragraph and the monkeys described in the last paragraph
  - C. To provide support for the conclusion drawn in the last sentence of the paragraph
  - D. To introduce a hypothesis regarding Diana monkeys' understanding of cause-effect relationships
  - E. To compare the results of Zuberbühler's first experiment to the results of his second set of experiments
  
4. The author mentions the "sophisticated climbing skills" of chimpanzees most likely in order to present information that helps to
  - A. explain why chimpanzees are less vulnerable to predation by leopards than are Diana monkeys
  - B. question the hypothesis that Diana monkeys hide in the forest canopy to defend themselves from chimpanzees
  - C. argue that the anti predator strategies Diana monkeys use to defend themselves against chimpanzees are ineffective
  - D. provide an explanation for the anti predator strategies Diana monkeys use to defend themselves against chimpanzees
  - E. suggest a possible reason for chimpanzees' and Diana monkeys' use of similar anti predator strategies to defend themselves against leopards

### Passage 31

*This passage is adapted from material published in 1993.*

Images gathered during the 1989 Magellan mission showed evidence of fault zones and volcanoes, but resolved the debate about Venusian plate tectonics by revealing the Venus has no global network of plates like those on Earth. The challenge then became the explanation of Magellan's findings. At the core of the ensuing debate were Venus's impact craters. Astronomers commonly use craters to estimate the age of the surface of an astronomical body by calculating from the known frequency with which comets and meteors travel through the Solar System how long it would take to produce the number of craters present: the more craters there are, the older the landscape probably is. It is not surprising to find regions of widely varying age on the same planet on Mars, for example, volcanism and erosion have erased craters in some areas, leaving a surface that is young and clean compared with the rest of the planet. Venus's craters appear to be distributed randomly, suggesting that the entire surface is roughly the same age. The surface appears to be about 500 million years old. Since the age of the Solar System is estimated to be around 4.5 billion years, some astronomers hypothesize that a cataclysmic event caused the previous craters to become covered.

Global resurfacing theories posit that between 300 and 500 million years ago almost all the surface of Venus was wiped clean by geologic processes including volcanism. Such activity then slowed dramatically, leaving subsequent craters largely untouched. Resurfacing may be a recurring process, periodically subjecting the planet to volcanism that covers the surface in lava. Venting of heat lithosphere, thickens as the lava hardens, preventing new magma from reaching the surface. Craters

formed on this new, hard surface remain largely intact. Heat is trapped in the interior until rising temperatures overwhelm the lithosphere, beginning the process again.

However, a theory that is not based on the notion of global resurfacing can also be constructed from the crater data. Although the pattern of craters on Venus is not necessarily inconsistent with a random distribution, there are areas of particularly high and low crater density. Whereas most of Venus's craters are in pristine condition, the roughly 20 percent that have been modified are mostly found in areas of low crater density and at high altitudes. If Venus were originally so hot that it deformed easily, wiping out the craters that formed early in its history, and if the planet's crust then cooled rapidly, the surface would look as it would if volcanoes had held their heat longer than the rest of the surface, continuing to deform or destroy craters after most of the planet had cooled.

1. This passage is primarily concerned with
  - A. recommending the use of information gathered by Magellan to resolve debates regarding Venus
  - B. assessing the plausibility of various theories regarding the history of Venus
  - C. resolving a debate among astronomers regarding the age of Venus
  - D. describing ways in which craters are formed on Venus
  - E. presenting conjectures regarding the significance of certain surface features of Venus
2. It can be inferred that, before the Magellan mission, there was disagreement among astronomers with regard to which of the following?
  - A. The age of the surface of Venus.
  - B. The presence of Earth-like plates on Venus
  - C. The number of craters to be found on Venus
  - D. The significance of the fault zones seen on Venus
  - E. The age of Venus relative to that of the rest of the Solar System
3. Which of the following best describes the function of the second paragraph of the passage?
  - A. It suggests an explanation for a finding that is discussed in the first paragraph.
  - B. It substantiates a conclusion reached by the astronomers mentioned in the fourth sentence of the first paragraph ("Astronomers ..... probably is")
  - C. It invalidates an assumption made by the astronomers mentioned in the last sentence of the first paragraph ("Since..... become covered")
  - D. It introduces a problem for which a solution is provided in the third paragraph.
  - E. It summarizes a process that was revealed by Magellan's images.
4. The information in the passage suggests that scientists who espoused global-resurfacing theories would be most likely to agree with which of the following statements?
  - A. Venus has not undergone a cataclysmic resurfacing since one that occurred between 300 and 500 million years ago.
  - B. The craters on the surface of Venus are all about the same age.
  - C. Global resurfacing has occurred numerous times on Venus.
  - D. The lithosphere of Venus is thicker than that of the Earth.
  - E. Some regions of the surface of Venus are much older than other regions.

### Passage 32

Standard accounts of the history of Brazilian samba often fail to distinguish the dance from the music. The particular features of the specific musical genre now called samba first appeared together in the 1917 carnival hit "Pelo telefone" and histories of samba tend to date its musical origins accordingly, although modern samba did not fully crystallize until the 1920s. But the word samba was used in Brazil during the nineteenth century to refer rather generically to polyrhythmic dance with percussive accompaniment enjoyed by Brazilians of African origin (Afro-Brazilians). It was more of an event or a style of body movement than a particular step. In this nineteenth-century sense of the word, samba was already a part of Rio de Janeiro's annual pre-Lenten carnival a full generation before the first samba schools (neighborhood dancing clubs) developed in the late 1920s.

In the elaboration of Brazilian national identity, this difference in timing is significant. In the years following 1917, a widely endorsed vision of national identity founded on the idea of racial mixing developed. To many \* Brazilians \*, post 1917 samba, understood as a blend of African and Portuguese musical ideas, stands as one of the most persuasive emblems of a cherished vision of racially mixed

national identity, linked through carnival to a myth of social leveling which, though enacted only during the few days of the festival, still forms part of a unifying national spirit. To some critics, on the other hand, the national glorification of what they consider an Afro Brazilian dance is a kind of theft, an appropriation of Black culture by the primarily Euro Brazilian dominant class. According to these critics, the powerful rhythms of batuque, a sacred dance of African origin that is the ancestor of samba, emerged abruptly from the confines of Black culture in the early twentieth century and entered the wider popular culture transformed into samba, a misleading symbol of the supposed esteem in which the nation held Afro Brazilians. In fact, these critics argue, the symbol was used in the 1920s and 1930s during a period of political turmoil by Euro Brazilian elites and the anti-democratic nationalist government of Getulio Vargas to consolidate political dominance.

While there is some truth to this view, it is a mistake to see modern samba as a first- generation child of batuque. Samba, the dance, does have its ultimate origins in seventeenth-century batuques, but during the eighteenth and nineteenth centuries it evolved through several intermediate stages and split into various, mutually influencing, genres, including not only the Black street pageant Congos, long agreed to be one of samba's ancestors, but also polyrhythmic Afro-Brazilian dances with percussive accompaniment, such as lundu and maxixe, that thrived in social situations where partners of different races came together. Because one source of samba's power as a symbol of racially mixed Brazilian identity is its history of racial mixing, that symbol is more than a simple appropriation of a "pure" Afro-Brazilian culture.

1. The author of the passage mentions the carnival hit "Pelo telefone" primarily in order to
  - A. date the origin of samba as a specific musical genre
  - B. date the origin of samba's appropriation by the Euro-Brazilian elite
  - C. highlight a distinction between samba performed during carnival and samba performed outside of carnival
  - D. highlight a distinction between samba performed by Afro-Brazilians and samba performed by Euro-Brazilians
  - E. highlight a distinction between samba derived from African musical sources and samba derived from European musical sources
2. The primary purpose of the passage is to
  - A. describe the changes in musical style that samba has undergone since the eighteenth century
  - B. argue that while samba, the musical genre, is a fitting symbol of Brazilian identity, samba, the dance, is not
  - C. propose a new vision of Brazilian identity symbolized by earlier Brazilian sacred dances of African origin
  - D. show how different views of samba's history affect the debate about samba as a symbol of Brazilian identity
  - E. question the idea that samba is important as a symbol of Brazilian identity
3. The passage suggests that the highlighted "Brazilians" would be most likely to agree with which of the following statements about the myth of social leveling enacted during carnival?
  - A. The myth is irrelevant to Afro-Brazilian efforts to achieve social equality outside of carnival.
  - B. The myth is evolving in response to political pressures that are exterior to carnival,
  - C. The myth serves as a component of Brazilian national identity.
  - D. The myth is a product of the racial mixing that samba has promoted since its nineteenth-century beginnings.
  - E. The myth's enactment should be restricted to the few days of carnival.
4. According to the passage, some critics believe which of the following about the government of Getulio Vargas"?
  - A. It used samba as a symbol of national identity to help to politically empower Afro- Brazilians.
  - B. It used samba as a symbol of national identity to compete with Euro-Brazilian elites for political power
  - C. It used samba as a symbol of national identity to secure its own political power.
  - D. It attempted to clarify the true origins of samba.
  - E. It resisted the national glorification of samba.



### Passage 33

Chimpanzees can detect when others can and cannot see them. With one another, for example, they use visually based gestures mostly when the potential recipient is attending to them already. Indeed, if the potential recipient is not attending to them, they will sometimes walk around in front of her before gesturing. In support of these findings, Liebal et al. found in an experimental study that when a human who was facing a chimpanzee and giving him food then turned his back to the chimpanzee, the chimpanzee subject walked around him to face him again before gesturing.

Povinelli and Eddy found that chimpanzees do not preferentially beg food from a human with uncovered eyes over begging it from one wearing a blindfold. This suggests that they do not know when others can and cannot see them. But Kaminski et al. modified this paradigm slightly to reflect more natural communicative situations, and they found different results. Their modification was that the chimpanzees did not have to choose between two human communicators—a very unnatural situation—but were always faced with only one communicator who was oriented in different ways in different experimental conditions. For example, in one condition the human faced the subject. In another, his back and head were both facing away. In yet another, his body was turned away as he looked back over his shoulder at the subject. The main finding was that chimpanzees gestured differently to the human depending on whether the human's face was oriented toward them, but only if the human was facing them bodily as well. Kaminski et al. argued, therefore, that body orientation and face orientation indicate two different things to an ape when it begs food from a human. Whereas body orientation indicates the human's disposition to give the subject food (i.e., when he is oriented so as to transfer food effectively), face orientation indicates whether the human is able to see the subject's begging gesture. This two-factor account helps to explain Povinelli and Eddy's negative findings.

**Interestingly and significantly, Kaminski et al. found that as long as the human was facing them, chimpanzees did not differentiate between the human's eyes being open and closed.** This accords with the findings of Tomasello et al. that in gaze-following situations chimpanzees follow mainly the direction of the head as a whole, and to a much lesser extent the direction of the eyes.

1. The author of the passage would probably agree with which of the following about Povinelli and Eddy's study?
  - A. The chimpanzees in the study thought that the blindfolded human was able to see them.
  - B. The study was flawed because it put chimpanzees in the unnatural position of begging for food.
  - C. The chimpanzees in the study were confused by the body orientation of the human subjects.
  - D. It would be difficult for Povinelli and Eddy to repeat the results of their study even with the same experimental conditions.
  - E. It is likely that the chimpanzees in the study thought that both humans were unable to see them.
2. Based on the discussion of Kaminski et al., which of the following situations would indicate to a chimpanzee that it cannot be seen by a human?
  - A. The human's body is facing the chimpanzee, but the human's face is turned away.
  - B. The human's body is turned away, but the human's face is turned over the shoulder toward the chimpanzee.
  - C. The human's body and head are both facing away from the chimpanzee.
3. It can be inferred that for Kaminski et al. the examples highlighted were meant to
  - A. explore the range of gestures that chimpanzees have been known to use
  - B. illustrate the communicative situations in which chimpanzees tend to be most comfortable
  - C. examine the possibility that chimpanzees might become confused under certain experimental situations
  - D. provide a range of communicative conditions similar to those likely experienced by chimpanzees
  - E. illustrate how chimpanzee gesturing changes according to the species of the recipient
4. The primary purpose of the passage is to
  - A. question the conventional interpretation of the role of vision in the feeding behavior of wild chimpanzees
  - B. recommend an approach to the study of visual awareness in chimpanzees
  - C. discuss a potential explanation for certain findings about chimpanzees understanding of visual perception
  - D. discuss the significance of certain gestures commonly manifested by wild chimpanzees
  - E. challenge the methodology used in several experimental studies of chimpanzee behavior

5. The author's discussion of Kaminski et al, in part serves to
  - A. delineate the nature of an ongoing controversy
  - B. consider the viability of several alternative views
  - C. reveal a contradiction in the conventional perspective
  - D. call into question the work of Liebal et al.
  - E. account for an apparently discrepant finding
  
6. The author would be likely to agree with which of the following about Povinelli and Eddy's study?
  - A. The chimpanzees in the study were confused by the body orientation of the human subjects
  - B. The chimpanzees in the study probably thought that the blindfolded human was able to see them.
  - C. The validity of the study's conclusions was compromised by the artificiality of the study's conditions.
  
7. Which of the following can be inferred from the passage about gesturing in chimpanzees?
  - A. It is done purposefully,
  - B. It is difficult for humans to interpret.
  - C. It is ineffective as a means of communication.
  - D. It is something that only some chimpanzees do regularly,
  - E. It is used primarily in relation to food.

### Passage 34

The evolutionary battle between farmers and the pests that attack their crops began during the earliest days of agriculture, when farmers selected the healthiest plants from one season as the source of seed for the next, making it more likely that each generation would produce more of the repellents and toxins needed to fend off pests. But the pests represented a moving target. As a result, pest populations evolved characteristics and behaviors that enabled them to resist such toxins and repellents. In recent years, this conflict has escalated sharply, as modern farmers not only rely on old methods of dealing with pests but also develop new ones, and the resulting pressure on pests to adapt thereby increases. For this reason, many of the shorter-term triumphs by farmers have carried within them the seeds of longer-term failure.

Some years ago, for example, geneticists theorized that one way to control caterpillars would be to incorporate into crop plants genes that stimulated the production of caterpillar toxins derived from a species of bacteria, *Bacillus thuringiensis*, or Bt. Since this bacterium and the caterpillars had both been around for millions of years, geneticists assumed that if the caterpillars had the genetic potential to develop resistance to the toxins, they would have done so. What the geneticists overlooked was the fact that in natural environments, outbreaks of this bacterium were extremely rare, so the pressure on the caterpillar to adapt to the toxins was quite low in nature. The caterpillars' genetic potential may never have had occasion to prominently display itself. Indeed, this point was borne out when some caterpillar populations developed significant resistance to these bacterial toxins as a result of farmers' unusually heavy reliance on them for controlling caterpillars.

Food deprivation appears to offer another effective approach to pest control. Farmers alternate planting of an insect's normal host plant with a plant that it cannot feed on, and the pest dies of starvation. But some insects have even begun to adapt to this normally quite effective strategy. During the 1980s, farmers in South Dakota reported experiencing trouble with the northern corn rootworm, despite the fact that they were routinely rotating corn and soybean crops. Scientists discovered that the rootworm had in fact adapted to this strategy. In large areas of the Midwest, where corn is grown every year, the corn rootworms produce eggs that remain in the soil for one winter and then hatch and feed on young corn roots in the following spring. In areas where farmers rotated corn with other crops that the rootworm could not eat, about 40% percent of the rootworm eggs were remaining in diapause, a rest state, for a second winter. This part of the rootworm population now exhibited a diapause that was synchronized to the rotation of the corn crop.

1. Which of the following best describes the organization of the passage?
  - A. A generalization is made and two specific instances are provided to illustrate it.
  - B. A phenomenon is described and two possible explanations are presented and evaluated.

- C. A new explanation of a phenomenon is presented and evidence of its advantages over earlier explanations is provided.
- D. An approach to solving a problem is described and certain obstacles to its implementation are discussed.
- E. A hypothesis is summarized and evidence that has traditionally been presented in support of it is evaluated.

2. According to the author, the strategy of rotating crops to eliminate pests has been

- A. effective in many instances
- B. used since the earliest days of agriculture
- C. less effective than genetic manipulation of plants
- D. most popular in the midwestern United States
- E. less effective against the northern corn rootworm than against caterpillars

3. Each of the following, if true, could provide a logical explanation for why farmers in large areas of the midwestern United States do not rotate their corn crops EXCEPT:

- A. The cost of rotating corn with soybeans is greater than the cost of accepting lower yields of corn as a result of damage inflicted by the northern corn rootworm,
- B. A safe and effective combination of insecticides has been found to be more effective at eradicating northern corn rootworm than has crop rotation,
- C. The capacity of the northern corn rootworm to synchronize its diapause with farmers rotation schedule has made this method of control significantly less effective.
- D. The price that the farmers can get for soybeans and other crops that could be effectively rotated with corn has dropped significantly.
- E. Farmers have yet to discover a variety of corn that can effectively resist northern corn rootworm.

4. The passage is primarily concerned with

- A. outlining the assumptions underlying an incorrect theory about the evolution of pests
- B. discussing the use of bacteria to control certain kinds of agricultural pests
- C. countering a claim regarding the nature of a seemingly intractable pest control problem
- D. evaluating some innovative proposals for overcoming pest control problems
- E. explaining why farmers have been unable to overcome a continuing pest control problem

## 逻辑单题

### Question Type One: Boldface

At a certain period in Earth's history, its atmosphere contained almost no oxygen, although plants were producing vast quantities of oxygen. As a way of reconciling these two facts, scientists have hypothesized that nearly all of the oxygen being produced was taken up by iron on Earth's surface. Clearly, however, **this explanation is inadequate**. New studies show that **the amount of iron on Earth's surface was not sufficient to absorb anywhere near as much oxygen as was being produced**. Therefore, something in addition to the iron on Earth's surface must have absorbed much of the oxygen produced by plant life.

1. In the argument given, the two portions in boldface play which of the following roles?

- A. The first is a claim made by the argument in support of a certain position; the second is that position.
- B. The first is a judgment made by the argument about a certain explanation; the second is that explanation.
- C. The first expresses the argument's dismissal of an objection to the position it seeks to establish; the second is that position.
- D. The first sums up the argument's position with regard to a certain hypothesis; the second provides grounds for that position.
- E. The first is a concession by the argument that its initial formulation of the position it seeks to

establish requires modification; the second presents that position in a modified form.

Rain-soaked soil contains less oxygen than does drier soil. **The roots of melon plants perform less efficiently under the low-oxygen conditions present in rain soaked soil.** When the efficiency of melon roots is impaired, the roots do not supply sufficient amounts of the proper nutrients for the plants to perform photosynthesis at their usual levels. It follows that **melon plants have a lower-than-usual rate of photosynthesis when their roots are in rain-soaked soil.** When the photosynthesis of the plants slows, sugar stored in the fruits is drawn off to supply the plants with energy. Therefore, ripe melons harvested after a prolonged period of heavy rain should be less sweet than other ripe melons.

2. In the argument given, the two portions in boldface play which of the following roles?

- A. The first states the conclusion of the argument as a whole; the second provides support for that conclusion.
- B. The first provides support for the conclusion of the argument as a whole; the second provides evidence that supports an objection to that conclusion.
- C. The first provides support for an intermediate conclusion that supports a further conclusion stated in the argument; the second states that intermediate conclusion.
- D. The first serves as an intermediate conclusion that supports a further conclusion stated in the argument; the second states the position that the argument as a whole opposes.
- E. The first states the position that the argument as a whole opposes; the second supports the conclusion of the argument.

Columnist: Until very recently, Presorbin and Veltrex, two medications used to block excess stomach acid, were both available only with a prescription written by a doctor. In an advertisement for Presorbin, its makers argue that **Presorbin is superior** on the grounds that doctors have written 200 million prescriptions for Presorbin, as compared to 100 million for Veltrex. It can be argued that the number of prescriptions written is never a worthwhile criterion for comparing the merits of medicines, but that **the advertisement's argument is absurd** is quite adequately revealed by observing that Presorbin was available as a prescription medicine years before Veltrex was.

3. In the columnist's argument, **the two highlighted portions** play which of the following roles?

- A. The first is a claim that the columnist's argument seeks to clarify; the second states a conclusion drawn about one possible interpretation of that claim.
- B. The first identifies the conclusion of an argument that the columnist's argument is directed against; the second states the main conclusion of the columnist's argument.
- C. The first states the main conclusion of the columnist's argument; the second states a conclusion that the columnist draws in defending that conclusion against an objection.
- D. The first identifies an assumption made in an argument that the columnist's argument is directed against; the second states the main conclusion of the columnist's argument.
- E. The first is a claim that has been offered as evidence to support a position that the columnist opposes; the second states the main conclusion of the columnist's argument.

**The number of traffic deaths in our region has increased over the past several years.** Because the poor condition of our roads and highways has caused a number of fatal accidents, the road commission recommended that, to reduce traffic deaths, the budget for road maintenance should be increased. **Many major traffic deaths, however, are attributed to traffic congestion than to poor road condition,** and better road will encourage people to drive more, worsen traffic congestion. So a better strategy for the road commission to recommend would be to reduce traffic congestion, though the best means for doing so remains to be determined. Improving mass transit is only one possibility.

4. In the politician's argument, **the two highlighted portions** play which of the following roles?
- A. The first introduce the position that the politician seeks to establish, the second provides evidence to support that position.
  - B. The first introduces the position that the politician seeks to establish, the second is evidence that was cited in support of the position that the politician opposes.
  - C. The first introduces the position that the politician seeks to establish, the second is an intermediate conclusion that is made in order to support that position.
  - D. The first introduces a problem, the response to which is presented in the argument, the second provides evidence that is aimed at arguing that a proposed response to this problem will turn out to be counterproductive.
  - E. The first introduces a problem, the response to which is presented in the argument, the second is evidence that was cited in support of a response that the politician opposes.

Stylistic evidence and laboratory evidence strongly support the claim that the magnificent painting *Garden of Eden* is a work of the Flemish master van Eyck. Nevertheless, **the painting must have been the work of someone else**, as anyone with a little historical and zoological knowledge can tell merely by looking at the painting. **The animals in the painting are all vivid representations of actual animals, including armadillos.** Yet armadillos are native only to Americas, and van Eyck died decades before Europeans reached the Americas.

5. In the argument given, the two highlighted portions play which of the following roles?
- A. The first is a position that the argument seeks to reject, the second is evidence that the argument uses against that position.
  - B. The first and the second are each pieces of evidence that have been used to support the position that the argument opposes.
  - C. The first presents the main conclusion of the argument; the second provides evidence in support of that conclusion.
  - D. The first is a judgment that serves as the basis for the main conclusion of the argument; the second states that main conclusion.
  - E. The first is an intermediate conclusion drawn in order to support a further conclusion stated in the argument; the second provides evidence in support of that intermediate conclusion.

In most coastal regions, the level of the sea is rising in relation to the land by one to two millimeters a year, and this trend would be explained by the hypothesis that at the North and South Poles, the amount of ice that melts during the summer now exceeds the amount forms during the winter. The hypothesis is not undermined by observations that **sea levels are falling relative to the Scandinavian coast by four millimeters a year.** Much land in northern latitudes, including Scandinavia, is still rising in response to being freed of the enormous weight of the ice that used to cover it during the last ice age, and **in Scandinavia the land is now rising faster than the sea.**

6. In the passage, the two highlighted portions play which of the following roles?
- A. The first states observations the accuracy of which is challenged in the passage; the second is part of the ground on which that challenge is based.
  - B. The first states observations that, according to the passage, are incompatible with a certain hypothesis; the second is part of the grounds offered in support of a revision of that hypothesis.
  - C. The first states observations that, according to the passage, can be reconciled with a certain hypothesis; the second describes a phenomenon that is the factual basis of that reconciliation.
  - D. The first presents a phenomenon, two competing explanations of which are considered in the passage; the second is the explanation of the phenomenon that the passage argues is correct.

E. The first provides evidence against a position; the second is that position.

Editors of major United States newsmagazines have been criticized for reducing the amount of space these magazines devote to international news. According to these editors, however, readers are wholly to blame for the reductions. After all, the editors point out, **sales of magazine issues that prominently feature international news stories have declined significantly**, and declining sales reflect declining reader interest. Yet even if true, this evidence does not refute the contention that editors should bear some of the blame for the reductions, unless editors are merely passive instruments responding to reader interest. And that is clearly an untenable view, since **editors can often intensify reader interest in a news topic by giving it frequent coverage**.

7. In the argument as a whole, the two highlighted portions play which of the following roles?

- A. The first is evidence that has been used to support a position that the argument opposes; the second is a point that the argument raises to cast doubt on the reasoning used to support that position.
- B. The first presents a claim, the truth of which is evaluated in the argument, the second is information introduced to cast doubt on that claim.
- C. The first presents a claim, the truth of which is evaluated in the argument, the second provides evidence in support of that claim
- D. The first cites evidence in support of the main conclusion of the argument, the second states that conclusion
- E. The first states an assumption that is explicitly made to support the main conclusion of the argument, the second is a position that the argument as a whole opposes.

In the country of Seligia, where asbestos have been used extensively in construction, that use is about to be banned, because the exposure of construction workers to asbestos can cause a certain type of cancer. We can predict that **the ban will result in reducing the incidence of that type of cancer in Seligia by as much as 50 percent**.

It is true that **no more than 30 percent of the death certificates of Seligians who have died of that cancer have "constructions" listed as the deceased's occupation**. The cancer takes about 2-years after exposure to develop, however, and Seligians who have worked in construction commonly turn to less strenuous occupations as they age. Slogan death certificates indicate only the deceased's last occupation.

8. In the argument given, the two highlighted portions play which of the following roles?

- A. the first is a prediction that the argument seeks to defend; the second presents evidence that if not supplemented would cast doubt on that judgment.
- B. the first is a prediction that the argument seeks to defend; the second is a finding, the accuracy of which is disputed by the argument as a whole.
- C. the first is a prediction that the argument as a whole rejects; the second presents evidence on which that rejection is based.
- D. the first is a prediction that the argument as a whole seeks to defend; the second is evidence that the defense can be at best partly successful.
- E. the first is a prediction that is cited in order to justify a stated conclusion; the second is a consideration that has been raised against that conclusion.

**Cuts that need to be held closed in order to heal properly have generally been held closed with stitches.** However, pressure to reduce medical costs is mounting. Consequently, it is likely that a newly developed adhesive will become the routine method of holding most types of cuts closed. The new adhesive holds most types of cuts closed as well as stitches do, and the cost of applying it is comparable to that of closing cuts with stitches. But whereas stitches must generally be removed by medical personnel after the cut has healed, the adhesive simply wears off. **Thus, for any cut that the adhesive can hold closed as well as stitches can, it is more economical to use the adhesive.**

9. In the argument given, the two highlighted portions play which of the following roles?

- A. The first is a claim that the argument disputes; the second provides evidence against that disputed claim.
- B. The first is a claim that is used as supporting evidence for the main conclusion of the argument; the second is that main conclusion.
- C. The first is a claim that is used as supporting evidence for the main conclusion of the argument; the second is a conclusion that is drawn in order to support that main conclusion.
- D. The first introduces a practice about which the argument makes a prediction, the second is a conclusion based on that prediction.
- E. The first introduces a practice about which the argument makes a prediction; the second is an

assessment that is used to support that prediction.

The traditional color of fire trucks is red, but in cities that have introduced yellow trucks into their fleets, the rate of traffic accidents per mile driven among these trucks has been far lower than the rate among red trucks. Some critics of the innovation have questioned whether **this difference should be attributed to color**, given that the yellow trucks were generally newer than the red trucks with which they were compared. But this criticism can be dismissed. Certainly, **the mere difference in accident rates is not decisive evidence**. The decisive fact is that the rates differed significantly only in the hours around dawn and dusk. At these hours, the visibility of yellow is known to be better than that of red.

10. In the argument given, the two highlighted portions play which of the following roles?

- A. The first is a statement of the position the argument as a whole opposes, the second is a statement of the position it defends.
- B. The first is a claim that the argument as a whole calls into question, the second denies the rationale presented by some critics of that claim.
- C. The first is a claim that the argument as a whole calls into question, the second points out an error of reasoning made by defenders of that claim.
- D. The first is the position defended in the argument; the second is an intermediate conclusion drawn to support that position.
- E. The first is the position defended in the argument; the second concedes a point to critics of that position.

Archaeologists recently excavated a collection of copper tools from a grave in India. Although the tools were similar to others from the same culture, each tool found in the grave was significantly larger than any other known tool of the corresponding type produced by the same culture. Since the larger size would have made many of the tools extremely unwieldy, **the tools were probably made specifically for ceremonial burial**. Tools made for ceremonial burial would be expected to have none of the wear that comes from use, and **indeed these tools showed no such wear**.

11. In the argument given, the two highlighted portions play which of the following roles?

- A. The first is introduced as evidence that apparently supports a position the argument opposes, the second is that position.
- B. The first is introduced as evidence that apparently supports a position the argument opposes, the second is the position the argument seeks to support.
- C. The first is the position the argument seeks to support, the second provides evidence to support that position.
- D. The first provides evidence for the position the argument seeks to support, the second is a position that the argument seeks to disprove.
- E. The first provides evidence for the position the argument seeks to support, the second is that position.

The traditional color of fire trucks is red, but in cities that have introduced yellow trucks into their fleets, the rate of traffic accidents per mile driven among these trucks has been far lower than the rate among red trucks. Some critics of the innovation have questioned whether **this difference should be attributed to color**, given that the yellow trucks were generally newer than the red trucks with which they were compared. But this criticism can be dismissed. Certainly, **the mere difference in accident rates is not decisive evidence**. The decisive fact is that the rates differed significantly only in the hours around dawn and dusk. At these hours, the visibility of yellow is known to be better than that of red.

12. In the argument given, the two highlighted portions play which of the following roles?

- A. The first is a statement of the position the argument as a whole opposes; the second is a statement of the position it defends.
- B. The first is a claim that the argument as a whole calls into question; the second denies the rationale presented by some critics of that claim.
- C. The first is a claim that the argument as a whole calls into question; the second points out an error of reasoning made by defenders of that claim.
- D. The first is the position defended in the argument; the second is an intermediate conclusion drawn to support that position.
- E. The first is the position defended in the argument; the second concedes a point to critics of that position.

## Question Type Two: Inference

A ten-year comparison between the United States and the Soviet Union in terms of crop yields per acre revealed that when only planted acreage is compared, Soviet yields were equal to 68 percent of United States yields. When total agricultural acreage (planted acreage plus fallow acreage) is compared, however, Soviet yield was 114 percent of United States yield.

1. From the information above, which of the following can be most reliably inferred about United States and Soviet agriculture during the ten-year period?
  - A. A higher percentage of total agricultural acreage was fallow in the United States than in the Soviet Union.
  - B. The United States had more fallow acreage than planted acreage.
  - C. Fewer total acres of available agricultural land were fallow in the Soviet Union than in the United States.
  - D. The Soviet Union had more planted acreage than fallow acreage.
  - E. The Soviet Union produced a greater volume of crops than the United States produced.

New methods developed in genetic research have led taxonomists to revise their views on the evolutionary relationships between many species. Traditionally the relatedness of species has been ascertained by a close comparison of their anatomy. The new methods infer the closeness of any two species' relationship to each other directly from similarities between the species' genetic codes.

2. Which of the following conclusions is best supported by the information?
  - A. The apparent degree of relatedness of some species, as determined by anatomical criteria, is not borne out by their degree of genetic similarity.
  - B. When they know the differences between two species' genetic codes, taxonomists can infer what the observable anatomical differences between those species must be.
  - C. The degree to which individuals of the same species are anatomically similar is determined more by their genetic codes than by such environmental factors as food supply.
  - D. The traditional anatomical methods by which taxonomists investigated the relatedness of species are incapable of any further refinement.
  - E. Without the use of genetic methods, taxonomists would never be able to obtain any accurate information about species' degrees of relatedness to one another.

Years ago, consumers in Frieland began paying an energy tax in the form of two Frieland pennies for each unit of energy consumed that came from nonrenewable sources. Following the introduction of this energy tax, there was a steady reduction in the total yearly consumption of energy from nonrenewable sources.

3. If the statements in the passage are true, then which of the following must on the basis of them be true?
  - A. There was a steady decline in the yearly revenues generated by the energy tax in Frieland.
  - B. There was a steady decline in the total amount of energy consumed each year in Frieland.
  - C. There was a steady increase in the use of renewable energy source in Frieland.
  - D. The revenues generated by the energy tax were used to promote the use of energy from renewable sources.
  - E. The use of renewable energy sources in Frieland greatly increased relative to the use of nonrenewable energy sources.

Normally, seeds of *Emmenanthe penduliflora* stay dormant for years and germinate only when a fire burns through their habitat. Nitrogen dioxide in the smoke induces the seeds to germinate. Fires clear the bush, allowing germinating seeds to receive the sunlight they need to grow. The plants mature quickly, produce seeds, and then die. In areas with heavy automobile traffic, however, the seed germinates in the absence of fire, with automobile exhaust supplying the required nitrogen dioxide.

4. The information given, if accurate, most strongly supports which of the following hypotheses?
  - A. Fires in the habitat of *E. penduliflora* do not entirely destroy the plant's seeds even in the places where the fires burn most intensely.
  - B. The nitrogen dioxide in automobile exhaust cannot harm plants of *E. penduliflora* after germination.
  - C. If human intervention decreases the number of fires in the habitat of *E. penduliflora*, automobile exhaust can replicate the conditions the plant requires in order to thrive.



- D. Within the habitat of *E. penduliflora*, natural fires are significantly more frequent in areas with heavy automobile traffic than they are in other areas.
- E. Unless *E. penduliflora* seeds that have germinated can survive in the shade, automobile exhaust threatens the long-term survival of the plant in areas with heavy automobile traffic.

The manuscript of a previously unknown ragtime piano piece recently been discovered. The manuscript is unsigned and has the notation "New York City, 1899" written on it. In 1899 Ben Harney was the New York musician most closely associated with ragtime. The style of the piece, however, is closer to that of Scott Joplin, but scholars believe that Joplin did not visit New York before 1906.

5. Form the information given, which of the following can properly be concluded?
- A. If Scott Joplin wrote the piece, either he did visit New York before 1906 or the notation on the manuscript does not reflect the place and date of composition of the piece.
- B. Ben Harney was stylistically influenced by Scott Joplin's music before Joplin ever visited New York.
- C. If Scott Joplin did not visit New York before 1906, then neither Ben Harney nor Scott Joplin composed the work.
- D. The notation on the manuscript was intended to signify something other than the place and date of composition of the piece.
- E. If the dating on the manuscript accurately reflects when and where the piece was composed, then Scott Joplin visited New York earlier than scholars have believed.

Monarch butterflies lay their eggs hundreds of miles away from their places of origin. Each caterpillar that emerges feeds exclusively on milkweed, absorbing the glycosides that milkweed contains. Butterflies contain the glycosides they absorb as caterpillars. Research on monarch butterflies whose migration has been tracked shows that the combination of glycosides in a butterfly always exactly matches the distinctive combination of glycosides that exists in the species of milkweed in the butterfly's place of origin.

6. If the information provided is true, which of the following is most strongly supported on the basis of it?
- A. The glycosides present in a monarch caterpillar will generally match those that were present in the butterfly that laid the egg from which the caterpillar emerged.
- B. Glycosides play an essential role in the biological mechanism that guides a monarch butterfly in its migration.
- C. The monarch butterflies present in a given region will all contain the same specific combination of glycosides
- D. A monarch butterfly does not absorb and accumulate glycosides from the milkweed of regions it reaches as a result of migration.
- E. Glycosides are the only identifiable substances from milkweed that accumulate in a monarch caterpillar and are retained in the body of the butterfly after metamorphosis.

### Question Type Three: Contradiction

In the United States between 1850 and 1880, the number of farmers continued to increase, but at a rate lower than that of the general population.

1. Which of the following statements directly contradicts the information presented above?
- A. The number of farmers in the general population increased slightly in the 30 years between 1850 and 1880.
- B. The rate of growth of the United States labor force and the rate of growth of the general population rose simultaneously in the 30 years between 1850 and 1880.
- C. The proportion of farmers in the United States labor force remained constant in the 30 years between 1850 and 1880.
- D. The proportion of farmers in the United States labor force decreased from 64 percent in 1850 to 49 percent in 1880.
- E. The proportion of farmers in the general population increased from 68 percent in 1850 to 72 percent in 1880.

#### Question Type Four: Explanation

During the day in Lake Constance, the zooplankton *D. hyalina* departs for the depths where food is scarce and the water cold. *D. galeata* remains near the warm surface where food is abundant. Even though *D. galeata* grows and reproduces much faster, its population is often outnumbered by *D. hyalina*.

1. Which of the following, if true, would help resolve the apparent paradox presented above?
- A. The number of species of zooplankton living at the bottom of the lake is twice that of species living at the surface.
  - B. Predators of zooplankton, such as whitefish and perch, live and feed near the surface of the lake during the day.
  - C. In order to make the most of scarce food resources, *D. hyalina* matures more slowly than *D. galeata*.
  - D. *D. galeata* clusters under vegetation during the hottest part of the day to avoid the Sun's rays.
  - E. *D. galeata* produces twice as many offspring per individual in any given period of time as does *D. hyalina*.

In the past ten years, there have been several improvements in mountain-climbing equipment. These improvements have made the sport both safer and more enjoyable for experienced climbers. Despite these improvements, however, the rate of mountain climbing injuries has doubled in the past ten years.

2. Which of the following, if true, best reconciles the apparent discrepancy presented in the passage?
- A. Many climbers, lulled into a false sense of security, use the new equipment to attempt climbing feats of which they are not capable.
  - B. Some mountain-climbing injuries are caused by unforeseeable weather conditions.
  - C. Mountain climbing, although a dangerous sport, does not normally result in injury to the experienced climber.
  - D. In the past ten years there have been improvements in mountain-climbing techniques as well as in mountain-climbing equipment.
  - E. Although the rate of mountain-climbing injuries has increased, the rate of mountain-climbing deaths has not changed.

Astronomers found a large body orbiting close to the star Upsilon Andromedae. The standard theory of planet formation holds that no planet that large could be formed so close to a star, leading to the suggestion that the body is a companion star. A subsequent discovery puts that suggestion in doubt: two other large bodies were found orbiting close to Upsilon Andromedae, and the standard theory of companion stars allows for at most one companion star.

3. Which of the following, if true, most helps to resolve the status of the orbiting body without casting doubt on the two standard theories mentioned?
- A. The smaller a planet orbiting a star is, and the farther away it is from the star, the less likely it is to be discovered.
  - B. If a planet's orbit is disturbed, the planet can be drawn by gravity toward the star it is orbiting.
  - C. The largest of the bodies orbiting Upsilon Andromedae is the farthest away from the star, and the smallest is the nearest.
  - D. It is likely that there are many stars, in addition to Upsilon Andromedae and the Sun, that are orbited by more than one smaller body.
  - E. In most cases of companion stars, the smaller companion is much fainter than the larger star.

Electric washing machines, first introduced in the United States in 1925, significantly reduced the amount of time spent washing a given amount of clothes, yet the average amount of time households spent washing clothes increased after 1925. This increase is partially accounted for by the fact that many urban households had previously sent their clothes to professional laundries. But the average amount of time spent washing clothes also increased for rural households with no access to professional laundries.

4. Which of the following, if true, most helps to explain why the time spent washing clothes increased in rural areas?
- A. People with access to an electric washing machine typically wore their clothes many fewer times before washing them than did people without access to electric washing machines.

- B. Households that had sent their clothes to professional laundries before 1925 were more likely than other households to purchase an electric washing machine when they became available.
- C. People living in urban households that had previously sent their clothes to professional laundries typically owned more clothes than did people living in rural households.
- D. The earliest electric washing machines required the user to spend much more time beside the machine than do modern electric washing machines.
- E. In the 1920s and 1930s the proportion of rural households with electricity was smaller than the proportion of urban households with electricity.

Sportfishers introduced the Zander, a type of perch, to Britain's rivers and canals in the 1970s. Because zander eat large numbers of smaller fish, they have had a devastating effect on native fish populations. To protect the native fish, a government program removed a significant proportion of the zander from Britain's waterways last year. Surprisingly, this year the loss of native fish to zander has been greater than before.

5. Which of the following, if true, would most help to explain the greater effect of zander on the native fish population?
- A. The climate in Britain is very similar to the climate in regions to which zander are native.
  - B. Most of the zander removed were fully grown, and fully grown zander eat large numbers of smaller zander.
  - C. Every year a large number of zander are caught by sportfisher in Britain's waterway.
  - D. Previous government program designed to remove nonnative species from Britain's waterways have failed.
  - E. Zander are just one of several nonnative fish that prey on the other fish found in Britain's waterway.

Despite the fact that the health-inspection procedure for catering establishments are more stringent than those for ordinary restaurant, more of the cases of food poisoning reported to the city health department were brought on by banquets served by catering services than were brought on by restaurant meals.

6. Which of the following, if true, helps explain the apparent paradox in the statement above?
- A. A significantly larger number of people eat in restaurants than attend catered banquets in any given time period.
  - B. Catering establishments know how many people they expect to serve, and therefore are less likely than restaurants to have, and serve, leftover foods, a major source of food poisoning.
  - C. Many restaurant provide catering services for banquets in addition to serving individual meals.
  - D. The number of reported food-poisoning cases at catered banquets is unrelated to whether the meal is served on the caterer's or the client's premises.
  - E. People are unlikely to make a connection between a meal they have eaten and a subsequent illness unless the illness strikes a group who are in communication with one another.

Despite a dramatic increase in the number of people riding bicycles for recreation in Parkville, a recent report by the Parkville Department of Transportation shows that the number of accidents involving bicycles has decreased for the third consecutive year.

7. Which of the following, if true during the last three years, best reconciles the apparent discrepancy in the facts?
- A. The Parkville Department of Recreation confiscated abandoned bicycles and sold them at auction to any interested Parkville residents.
  - B. Increased automobile and bus traffic in Parkville had been the leading cause of the most recent increase in automobile accidents.
  - C. Because of the local increase in the number of people bicycling for recreation, many out-of-town bicyclists ride in the Parkville area.
  - D. The Parkville Police Department enforced traffic rules for bicycle riders much more vigorously and began requiring recreational riders to pass a bicycle safety course.
  - E. The Parkville Department of Transportation canceled a program that required all bicycles to be inspected and registered each year.

Although initially symptomless, glaucoma can eventually cause blindness when not properly treated. Tests under laboratory conditions of the traditional treatment, daily administration of eyedrops, show it to be as effective in relieving the internal ocular pressure that causes glaucoma as is a new laser-surgical procedure. Yet glaucoma-related blindness occurs in a significantly smaller percentage of

patients who have had the surgery than of patients for whom only the eyedrop treatment was prescribed.

8. Which of following, if true, most helps to explain the low rate glaucoma-related blindness among patients who had the surgery?

- A. Glaucoma-related blindness is no more common among patients who have had only the surgery than it is among patients who had the surgery after using the eyedrops
- B. Doctors rarely recommend the surgery for glaucoma patients who have already started the traditional course of treatment
- C. There is no known physiological cause of glaucoma other than increase in pressure inside the eye
- D. A significant percentage of the people for whom the eyedrop treatment has been prescribed fail to follow the prescribed daily regimen, because the eyedrops have unpleasant side effects.
- E. The eyedrops traditionally prescribed to treat glaucoma are normally prescribed to treat other disease of the eye.

The accepted model of planetary formation holds that Jupiter-sized planets could only form in orbits much farther from their parent star than Earth is from the Sun. Recently, astronomers have detected planets orbiting stars other than the Sun, and some of these planets, though as large as Jupiter, have orbits around stars older than the Sun that are much closer to those stars than Earth's orbit is to the Sun. Nonetheless, most astronomers continue to regard the accepted model as correct.

9. Which of the following, if true, provides astronomers with the strongest grounds for continuing to regard the accepted model of planetary formation as correct, despite the new discoveries?

- A. The instruments used to detect planets orbiting other stars are incapable of detecting planets that are smaller than Jupiter
- B. Only a small fraction of the stars likely to have planets have been examined so far
- C. After being formed, planets as small as Earth might be attracted to larger planets, eventually becoming their satellites.
- D. There is no known reason why older stars would tend to be more likely than younger stars to have planets.
- E. Planets tend to be drawn into closer orbits to their parent star as time passes

### Question Type Five: Weaken

In 1998 the United States Department of Transportation received nearly 10,000 consumer complaints about airlines; in 1999 it received over 20,000. Moreover, the number of complaints per 100,000 passengers also more than doubled. In both years the vast majority of complaints concerned flight delays, cancellations, mishandled baggage, and customer service. Clearly, therefore, despite the United States airline industry's serious efforts to improve performance in these areas, passenger dissatisfaction with airline service increased significantly in 1999.

1. Which of the following, if true, most seriously weakens the argument?

- A. Although the percentage of flights that arrived on time dropped slightly overall, from 77 percent in 1998 to 76 percent in 1999, some United States airlines' 1999 on-time rate was actually better than their 1998 on-time rate.
- B. The number of passengers flying on United States airlines was significantly higher in 1999 than in 1998.
- C. Fewer bags per 1,000 passengers flying on United States airlines were lost or delayed in 1999 than in 1998.
- D. The appearance in 1999 of many new Internet sites that relay complaints directly to the Department of Transportation has made filing a complaint about airlines much easier for consumers than ever before.
- E. Although the number of consumer complaints increased for every major United States airline in 1999, for some airlines the extent of the increase was substantial, whereas for others it was extremely small.

The average temperature of the lobster-rich waters off the coast of Foerkland has been increasing for some years. In warmer water, lobsters grow faster. In particular, lobster larvae take less time to reach the size at which they are no longer vulnerable to predation by young cod, the chief threat to their

survival. Consequently, the survival rate of lobster larvae must be going up, and the lobster population in Foerkland's coastal waters is bound to increase.

2. Which of the following, if true, most seriously weakens the argument?

- A. There are indications that in recent years the fishing fleet operating off the coast of Foerkland has been taking cod at an unsustainably high rate.
- B. The increase in water temperatures off Foerkland has not been as pronounced as the increase in average soil temperatures in Foerkland.
- C. Because of their speeded-up growth, lobsters now get large enough to be legal catch before they reach reproductive maturity.
- D. Even though lobsters grow faster in warmer waters, warmer waters have no effect on the maximum size to which a lobster can eventually grow.
- E. Cod are a cold-water species, and the increasing water temperatures have caused a northward shift in Foerkland's cod population.

Even after numerous products made with artificial sweeteners became available, sugar consumption per capita continued to rise. Now manufacturers are introducing fat-free versions of various foods that they claim have the taste and texture of the traditional high-fat versions. Even if the manufacturers' claim is true, given that the availability of sugar-free foods did not reduce sugar consumption, it is unlikely that the availability of these fat-free foods will reduce fat consumption.

3. Which of the following, if true, most seriously undermines the argument?

- A. Several kinds of fat substitute are available to manufacturers, each of which gives a noticeably different taste and texture to products that contain it.
- B. The products made with artificial sweeteners did not taste like products made with sugar.
- C. The foods brought out in sugar-free versions did not generally have reduced levels of fat, but many of the fat-free versions about to be introduced are low in sugar.
- D. People who regularly consume products containing artificial sweeteners are more likely than others to consume fat-free foods.
- E. Not all foods containing fat can be produced in fat-free versions.

There are many structural and thematic similarities between *Piers Plowman* by Langland (1330-1400) and *House of Fame* by Chaucer (1342-1400), two Middle English poems relating dream visions. Some critics have argued that because a number of the shared elements are uncommon in Middle English poetry, and because Langland's poem probably predates Chaucer's by a few years, Chaucer was most likely influenced by *Piers Plowman* when writing *House of Fame*.

4. Which of the following, if true, most seriously weakens the critics' argument?

- A. *Piers Plowman* is one of Langland's major works, whereas *House of Fame* is a minor work of Chaucer's.
- B. *House of Fame* survives in only three manuscript copies, substantially fewer than the number of manuscript copies that exist of *Piers Plowman*.
- C. Because *Piers Plowman* became a well-known work in its day, it is likely that the similarities between it and *House of Fame* were detected by many of the people who read *House of Fame* soon after Chaucer wrote it.
- D. Many of the themes and structures of *Piers Plowman* are also found in Latin, Italian, French works with which Chaucer could well have been familiar.
- E. There is no evidence that Chaucer and Langland ever met or that they corresponded with each other about literary topics.

The Great Sphinx is a huge statue in Egypt that has a lion's body with a man's head. The face of the Sphinx has long been claimed to be that of pharaoh Khafre, who lived around 2600 B.C., but it cannot be: erosion patterns recently discovered on the lion's legs can only have been caused by heavy rains, and the Sahara has not had heavy rains in over 10,000 years.

5. Which of the following, if true, most seriously weakens the argument?

- A. The face of the Sphinx bears a resemblance to the faces on certain stylized statues dating from both before and after the reign of Khafre.
- B. Other erosion patterns that appear on the body of the Sphinx are of a sort that could be caused by wind and sand alone.
- C. Other than the Sphinx, there are no surviving sculptures that have been claimed to portray the face of Khafre.
- D. In the last 10,000 years the climate of Egypt has been so dry that even rains that are not heavy have

been extremely infrequent.

E. The face of the Sphinx is small relative to the rest of the head, indicating that the face may have been recarved long after the Sphinx was built.

As an example of the devastation wrought on music publishers by the photocopier, one executive noted that for a recent choral festival with 1,200 singers, the festival's organizing committee purchased only 12 copies of the music published by her company that was performed as part of the festival.

6. Which of the following, if true, most seriously weakens the support the example lends to the executive's contention that music publishers have been devastated by the photocopier?

A. Only a third of the 1,200 singers were involved in performing the music published by the executive's company.

B. Half of the singers at the festival had already heard the music they were to perform before they began to practice for the festival.

C. Because of shortages in funding, the organizing committee of the choral festival required singers to purchase their own copies of the music performed at the festival.

D. Each copy of music that was performed at the festival was shared by two singers.

E. As a result of publicity generated by its performance at the festival, the type of music performed at the festival became more widely known.

Last year, Mayor Stephens established a special law-enforcement task force with the avowed mission of eradicating corruption in city government. The mayor's handpicked task force has now begun prosecuting a dozen city officials. Since all of these officials were appointed by Mayor Bixby, Mayor Stephens' predecessor and longtime political foe, it is clear that those being prosecuted have been targeted because of their political affiliations.

7. Which of the following, if true, most weakens the editorial's argument?

A. Complaints of official corruption in city government have decreased since the anticorruption task force began operating.

B. Former mayor Bixby did not publicly oppose Mayor Stephens' establishment of the anticorruption task force.

C. Almost all of the officials who have served in city government for any length of time are appointees of Mayor Bixby.

D. All of the members of the anticorruption task force had other jobs in city government before the task force was formed.

E. During the last mayoral election campaign, then-Mayor Bixby hotly disputed the current mayor's claim that there was widespread corruption in city government.

Princessfish are a species of coral-reef fish that are captured alive by divers who first stun the individual fish by squirting a certain poison at them. Since the divers limit their catch to a few individuals and take care not to overfish, the divers' continuing activities will clearly not result in serious harm to populations of princessfish.

8. Which of the following, if true, most seriously weaken the argument given?

A. Princessfish cannot be captured alive by traditional methods of fishing.

B. The poison used to stun the princessfish has no effect on humans who eat them.

C. Demand for princessfish has remained steady during the last decade.

D. Traces of the poison that remain in the seawater damage the corals that create and maintain the reefs on which princessfish depend.

E. Fish that have been stunned but have selected for capture by the divers soon recover from the temporary effect of the poison.

Low bone density is the primary risk factor for bone fractures. People with a physically inactive lifestyle provide a case in point: their bone density decreases and, as a result, they become increasingly prone to bone fractures. People who routinely take Omega sleeping pills are also uncommonly prone to bone fractures, even as compared to users of other sleeping pills. Clearly, when data on Omega users' bone density are collected, what they will show is below-average bone density.

9. Which of the following, if true, casts most doubt on the prediction?

A. When taken regularly, Omega sleeping pills, more than other sleeping pills, cause people to be unsteady on their feet.

B. Omega sleeping pills, when taken regularly, can be taken in gradually decreasing dose without any diminution of the desired effect.

- C. Measuring a person's bone density is not currently a part of a routine medical checkup.
- D. In people whose bone density decreases, the likelihood of a hip fracture increases at a greater rate than does the likelihood of any other kind of bone fracture.
- E. People who regularly take Omega sleeping pills are no more likely than people in general are to have a physically inactive lifestyle.

A photograph from 1843 is sometimes claimed to be the earliest surviving portrait of Abraham Lincoln (1809-1865), sixteenth President of the United States. The photograph shows a face without a cleft chin, whereas Lincoln's chin was cleft. However, since skilled retouching of a photographic negative can undetectably change a feature such as a cleft chin in portraits produced from the negative, absence of a cleft chin is inconclusive as evidence that the photograph is not Lincoln.

10. Which of the following, if true, most seriously undermines the argument?

- A. Few of the authenticated photographs of Lincoln show his cleft chin, since during his presidency (1860-1865) he was bearded.
- B. An authenticated photograph of Lincoln taken in 1846 clearly shows a cleft chin.
- C. The photograph was made by the daguerreotype process, an early photographic process in which no negative was produced.
- D. The 1843 photograph differs from authenticated photographs of Lincoln from the time before he was President in that those photographs show a man with a sunburned face and wearing rough clothes.
- E. There is no surviving documentary evidence from Lincoln's letters or elsewhere that he sat for a photograph at any time before 1846.

Use of conventional flu medications remains common. However, in recent years, use of Sabocin, a nonconventional herbal remedy for the flu, has increased. Sabocin's effectiveness relative to conventional medications is unproven, but it is clear Sabocin is less likely to cause unpleasant side effects: Only 35 percent of people who have used Sabocin recall an unpleasant side effect, whereas 55 percent of those people recall having experienced an unpleasant side effect when they took conventional flu medication.

11. Which of the following, if true, most seriously weakens the argument?

- A. Sabocin is not the most popular nonconventional herbal remedy for the flu.
- B. Most people with the flu will recover within a week even if they do not take any sort of remedy.
- C. People who have experienced unpleasant side effects from a conventional flu medication are more likely to try Sabocin.
- D. The makers of Sabocin do not manufacture any conventional flu medication.
- E. Any particular case of the flu tends to be medicated with either conventional flu medications or nonconventional remedies, but not with both.

The Rivera Art Museum recently began charging admission. The resulting decline in visitors has been far larger than at other local museums, which have also begun charging admission. The magnitude of the decline might be due to the Rivera's location near government offices. Because an admission charge is most discouraging to those who plan a short visit, it is likely that government workers who formerly made brief visits during lunchtime and after work now do not.

12. Which of the following, if true, most seriously undermine the proposed explanation?

- A. The fee for admission to the Rivera is no larger than that charged by other museums.
- B. The Rivera does not keep track of how long individual visitors stay in the museum.
- C. The decline in visitors to the Rivera has been no greater on workdays than it has been on nonworking days.
- D. The museum with the smallest decline in visitors is the most popular with visitors from other countries.
- E. In the period between the announcement that there would be an admissions charge and its actual introduction, there was an increase in visitors at the Rivera.

Many shipwrecks dating from the period between A.D. 300 and 600 have been discovered in the Ramian Sea. Well over half of those ships were carrying cargo stored in large ceramic jars, many of which were preserved largely intact on the ocean floor. During that period, such jars carried only liquid. Therefore, liquid cargo was probably carried by a majority of the cargo ships that navigated the Ramian Sea during that period.

13. The force of the evidence cited in the passage is most seriously weakened if which of the following is true?

- A. For ships on the Ramian Sea during the period, a full load of liquid cargo stored in large ceramic jars was not likely to be significantly heavier than a full load of other kinds of cargo that were typical of the period.
- B. There are no surviving records dating from the period that detail specific cargoes shipped across the Ramian Sea.
- C. The ratio of liquid to solid cargo shipped across the Ramian Sea did not vary significantly over the period.
- D. The presence of a sizable quantity of large ceramic jars on the ocean floor is so visually striking that a shipwreck of a ship carrying such jars is more likely to be noticed and reported than are shipwrecks of ships carrying other cargoes.
- E. During the period, grain and other solid cargo was shipped across the Ramian Sea in containers made from material other than clay.

Liane: While the government of Marania was building the new hydroelectric dam in the Cafu River valley, archaeologists discovered an incredibly important new site in the area. The government has agreed to postpone flooding of the area, but only by four months, not the two years some experts think necessary. Clearly, the government's avowed "commitment to Marania's cultural heritage" is a sham.

Tibor: Untrue! The archaeologists working at the site declared themselves entirely satisfied.

14. Which of the following, if true, could best be used to counter Tibor's objection?

- A. If it had not been for the impending flooding, the site might have remained undiscovered for many more years.
- B. Many of the objects already found at the site can readily be moved to higher ground that is safe from being flooded.
- C. The sincerity of the Marania government's commitment to the country's cultural heritage has not in the past been seriously questioned.
- D. Most of the on-site archaeologists are foreigners whose digging permits would be revoked immediately if the Maranian government believed they were criticizing it.
- E. Residents of the Cafu River valley are counting on the electricity from the dam to stimulate economic development.

Astronomers occasionally detect gamma-ray bursts in the sky. Matter crashing onto neutron stars in our galaxy would emit gamma-ray bursts with durations and intensities like those of the bursts observed by astronomers. Therefore, such interactions between matter and neutron stars are, plausibly, the explanation for these bursts.

15. Which of the following, if true, most strongly undermines the proposed explanation for gamma-ray bursts?

- A. Astronomers first detected gamma-ray bursts in 1973, whereas neutron stars were known to exist several decades before that.
- B. Astronomers believe that neutron stars are the remnants of stars that once violently exploded and ejected most of their constituent matter.
- C. Gamma-ray bursts vary in duration from as little as a thousandth of a second to more than 100 seconds.
- D. Gamma-ray bursts occur just as often in regions of the sky where neutron stars are thought not to exist as they do where neutron stars are known to exist.
- E. Some neutron stars emit short pulses of radio waves, which are known to be of lower frequency than gamma rays.

Between 1970 and 1980, energy consumption by United States industry peaked and then declined, so that by 1980 total industrial use of energy was below the 1970 level even though total industrial output had grown substantially in the same period. Industry must have instituted highly effective energy conservation measures in those years to have achieved such impressive results.

16. Which of the following, if true, most seriously weakens the conclusion of the argument?

- A. Many industries switched to the greatest extent possible from high-priced oil to lower-priced alternatives throughout the 1970's.
- B. Total residential energy consumption was higher in the United States in 1980 than it had been in 1970.
- C. Many industrial users of energy had paid little attention to energy conservation prior to 1970.
- D. Industrial output grew less rapidly from 1970 to 1980 than it had from 1960 to 1970.
- E. The industries whose production dropped sharply during the 1970's included a disproportionately



large number of energy-intensive industries.

Many scholars believe that it was Granziera who actually wrote the politically charged plays attributed to Urbani. But a comparison of the texts of those plays with Granziera's known works shows a distinct difference in style: the frequency of words with at least three syllables in these plays is much lower than in the works known to have been written by Granziera. Therefore, Granziera is probably not the author of the plays attributed to Urbani.

17. Which of the following, if true, most seriously weakens the argument?

- A. All of the works known to have been written by Granziera are scholarly essays in political theory.
- B. In the period in which Granziera and Urbani wrote, many works were published anonymously.
- C. Whereas most of the plays attributed to Urbani are short, a few are very long.
- D. Granziera and Urbani are known to have held similar political views.
- E. It is relatively rare for an author to employ substantially different styles in different published works.

In commercial fishing, people compete for their catches with whatever other creatures naturally prey on the fish sought for human consumption. From a purely commercial point of view, therefore, it would make sense to kill off those other predator species in order to increase yields of the commercially desirable prey species.

18. Which of the following, if true about aquatic species, most seriously weakens the argument above?

- A. There are many pairs of predator and prey species in which the species that is of commercial importance is the predator species.
- B. There are species that are under little or no predatory pressure except that they are hunted by people.
- C. Commercial fishing, unless carefully managed, can deplete certain species enough to threaten the associated predator species with extinction.
- D. In comparison with the predator species associated with a given prey species, the prey species is generally the more numerous, but the ranges occupied by the two species usually coincide.
- E. The presence of nonhuman predators tends to improve the survival chances prey species by selectively removing weak or sick individuals or reproductive age.

TEB Attorney: TEB Corporation has been accused of not doing enough to discourage its executives from defrauding the government. This accusation is obviously false, since TEB, following its own written policy, rewards those who report the wrongdoing of others and promptly fires proven wrongdoers.

19. Which of the following, if true, most seriously undermines the attorney's argument in defense of TEB?

- A. "Wrongdoing" is defined in TEB corporate policies as "any activity by a TEB employee that defrauds TEB."
- B. TEB has instituted what it calls "customer friendly" policies of responding to every complaint customers make.
- C. The government is not TEB's sole client, nor even its major client.
- D. Defrauding the government would have to involve more than one employee of any company that did so.
- E. Those who have accused TEB of not doing enough to discourage its executives from defrauding the government have themselves been government employees.

The use of nets at beach resorts to protect swimming areas from sharks has been criticized by environmentalists because the nets needlessly kill thousands of marine animals annually. However, environmentalists have recently discovered that an electrified cable buried beneath the periphery of swimming areas causes sharks to swim away while harming neither humans nor marine life. Hence, by installing such cables, resort communities will be able to maintain tourism while satisfying environmentalists' concerns.

20. Which of the following, if true, most seriously weakens the argument?

- A. Many seaside resort communities where sharks have never been sighted nonetheless paid to install buried electrified cables.
- B. Tourism at resorts where sharks have been sighted has suffered only slightly despite the fact that many people claim to fear sharks.
- C. Because they have a strong fear of sharks, many tourists prefer to swim at beaches that are known

to be well protected from sharks.

D. The buried electrified cable is not the only innovation approved by environmentalists that is known to be successful in repelling sharks without harming them

E. The marine mammals that are a major tourist attraction at many resorts do not enter areas around which there are buried electrified cables.

Samples taken from the ice of glaciers show that during the last ice age there was far more dust in the atmosphere than there is now. Since greater amounts of dust in the atmosphere would result in less sunlight's reaching the Earth's surface, it is likely that the large amount of dust then present helped maintain low global temperatures and thus prolonged the ice age.

21. Which of the following, if true, most seriously weaken the argument?

A. Large amount of dust in the atmosphere would tend to keep heat from the Sun that reached the Earth's surface from escaping into outer space.

B. The glacial samples show that during the period between the two most recent ice ages the level of atmospheric dust was far lower than it was during either of ice ages.

C. Volcanic eruptions in the recent past have released sufficient dust to cause detectable changes in global temperature patterns.

D. The amount of dust in the atmosphere was significantly greater in the middle of the last ice age than at the end.

E. Sunlight is the main heat source of the Earth's surface.

In Stanton the average number of people injured per automobile accident is consistently higher for accidents involving a taxicab than for those not involving a taxicab. Although all Stanton taxicabs are equipped with passenger seat belts, taxicab drivers report that passengers tend not to use them. It is likely, therefore, that if taxicab passengers were required to use seat belts, the number of people injured per accident would soon be no higher for taxicabs than for other automobiles.

22. Which of the following, if true about Stanton, most seriously weakens the argument?

A. The number of automobile accidents has been declining in recent years.

B. Since taxicabs are driven more miles annually than most other vehicles, they are more likely to be in an accident during any given year than is the average vehicle.

C. There are more taxicabs in operation, relative to the overall number of motor vehicles, than there are in most cities of Stanton's size.

D. The number of people, including the driver, who occupy a vehicle is generally greater for taxicabs than for other vehicles.

E. Not all passengers in automobiles other than taxicabs use seat belts.

Orcas are small whales that generally travel in groups called pods. Orcas that feed on marine mammals travel in very small pods, while those that feed on fish travel in relatively large pods. Since a larger pod has an increased collective ability to locate prey, it is likely that orcas that feed on mammals travel in small pods only because the mammals that they hunt can more easily detect a large pod and escape it.

23. Which of the following, if true, most strongly indicates that the conclusion is too sweeping?

A. Orcas that feed on fish almost always remain in the pod into which they were born, while orcas that feed on mammals will form new pods if the one they are in becomes too big.

B. No orcas have been observed to switch back and forth between feeding on fish and feeding on mammals.

C. Pods of orcas generally include at least one mother and one or two of her offspring.

D. Unlike marine mammals, fish generally travel in large schools, which can provide food for large pods of orcas.

E. Individuals from different pods interact frequently, and pods are small, such interaction predominantly foraging activities.

The sixteenth-century art historian Vasari wrote about a building only when he himself had seen it or a detailed model of it. The thorough description of the new chapel at Larcona contained in the second edition of Vasari's *Lives of the Artists* must have been contributed by someone else, since the edition was published the year before Vasari's travels took him to Larcona, and no model of the chapel was ever shown in Florence, Vasari's home.

24. Which of the following, if true, most seriously weakens the argument?

- A. Vasari discussed with his collaborators the new chapel at Larcona described in the second edition of the book.
- B. A model of the proposed chapel at Larcona was displayed in Rome, a city Vasari visited often.
- C. There were many printings of the second edition of the book, all of them textually identical.
- D. Vasari did not intend to provide in his book detailed descriptions of buildings outside of his native Florence.
- E. Most sections of the book are devoted to works of art and buildings of Vasari's native Florence.

About 20 percent of professors at Torellia National University were not educated in Torellia. The average pay of professors at the university who were educated in Torellia is about 10 percent lower than that of professors with comparable levels of training and experience who were educated outside Torellia. These figures clearly indicate the existence of a university policy, though probably an unwritten one, of favoring foreign-educated professors over those educated in Torellia when determining salaries.

25. Which of the following, if true, most seriously undermines the editorials conclusion?
- A. The salaries of professors at the university are increasing more slowly than the salaries of people with comparable levels of training and experience employed by corporations.
  - B. The business school of the university, where most of the professors who were educated outside Torellia teach, must pay high salaries to its faculty to compete with salaries available to them from corporations.
  - C. The benefits other than salary offered to the university's professors are about the same for professors educated in Torellia as for those not educated in Torellia.
  - D. The university has an explicit policy setting broad salary ranges for professors at all levels of experience.
  - E. Most of the professors at the university who were educated outside Torellia are native-born citizens of Torellia.

It was recently discovered that the editors of a scholarly journal rejected a paper submitted for publication, even though expert reviewers had strongly recommended it. The editors said they had concerns about possible political reactions to this paper. This sorry episode shows that what many people have long suspected is true: that the journal routinely rejects papers on the basis of political rather than scholarly considerations.

26. The reasoning in the argument is open to criticism on the grounds that the argument
- A. presumes that just because something happens frequently, it invariably happens
  - B. presumes that something is true simply on the grounds that many people think it
  - C. relies on evidence that contradicts the conclusion that is drawn
  - D. relies on a single example to establish a general claim
  - E. relies on claims made by people who are not experts in the field

In a five-year study of people with coronary heart disease, 85%percent of those given Artilase, a new drug developed as a treatment for coronary heart disease, were still alive at the end of the study. Since without Artilase only 75 percent of this group would have been expected to have lived the entire five years, Artilase is clearly effective in extending the lives of people with coronary heart disease.

27. Which of the following, if true, most seriously undermines the argument given?
- A. Eighty-five percent of those in the study who were given a placebo (a medically ineffective but harmless pill) rather than Artilase were still alive at the end of the study.
  - B. The study was funded by the manufacturers of Artilase.
  - C. The study did not include people whose coronary heart disease was so far advanced at the time the study began that they were not expected to live more than one year.
  - D. At least 75 percent of the people in the study would have been expected to live an additional five years or more had they undergone surgical treatment for their heart disease.
  - E. The study had originally been intended to last only four years.

The national crime rate has been declining, but television news coverage of crime has been increasing. Many media analysts hold that the increasing emphasis on crime is making viewers more mistrustful of others and more afraid of crime. To support this position, they cite survey results that show that the people most likely to be mistrustful of others and to overestimate the crime rate are those who watch the most television.

28. Which of the following, if true, most seriously weakens the support provided by the survey results for the media analysts' position?

- A. There are many people who are deeply mistrustful of others and watch little or no television.
- B. Most people who have themselves been victims of a crime overestimate the crime rate and are mistrustful of others.
- C. Among people who say that they are not mistrustful of others, the great majority say that they believe that when an individual event is portrayed on television, it is portrayed accurately.
- D. Most people who watch television news on a regular basis say that they find crime stories more interesting than most other kinds of stories.
- E. People who are unusually suspicious and particularly afraid of crime tend to stay home watching television more than do people who are not.

### Question Type Six: Assumption

In mountainous regions, the timberline is the highest altitude at which trees grow. In the Rocky Mountains, the current timberline is at the altitude above which growing season temperatures remain cooler than 10 degrees centigrade. Fossilized remains of trees that grew 10,000 years ago have been found 100 meters above the current Rocky Mountain timberline. Clearly, therefore, the climate of the Rocky Mountains is cooler now than it was 10,000 years ago.

1. Which of the following is an assumption on which the argument relies?

- A. In the past 10,000 years, the only trees to have grown above today's timberline are the trees whose fossilized remains have been found.
- B. No trees grew 10,000 years ago at altitudes higher than the ones at which fossilized tree remains have been found.
- C. The fossils are not of species of trees that were able to tolerate cooler growing temperatures than are the species that currently grow near the timberline.
- D. The Rocky Mountains have not eroded significantly over the past 10,000 years.
- E. The climate of the Rocky Mountains has never been significantly warmer than during the lifetime of the trees whose fossilized remains have been found.

Cotton grass, which grows only in arctic regions, has been the only summertime source of protein available to caribou. Caribou that do not get adequate amounts of protein in the summer are unable to reproduce the following year. Rising average temperatures in arctic regions, however, are causing cotton grass to disappear. Therefore, if the warming trend continues, caribou are likely to become extinct.

2. Which of the following is an assumption on which the argument depends?

- A. cotton grass is the only one of the caribou's food sources that is becoming scarce as temperatures rise in arctic regions.
- B. caribou that do not eat enough protein to reproduce do not live as long as caribou that do
- C. The warming trend in arctic regions will not enable other plants capable of providing protein to caribou to grow there.
- D. The caribou is the only animal that depends on cotton grass as a major source of food.
- E. If the warming trend continues and cotton grass disappears from arctic regions, then cotton grass will be extinct.

In the shallow end of Lake Tomwa, there are remains of numerous Jeffery pine trees that grew there during a lengthy drought. Researchers had believed that this drought lasted at least 150 years, but carbon dating reveals that pines were growing in the lake bed for only 120 years, from 1200 until 1320. Since the Jeffrey pines, which cannot survive in water, must have died at the end of the drought, the dating shows that the drought lasted less than 150 years.

3. The argument given relies on which of the following as an assumption?

- A. No other species of tree started growing in the bed of Lake Tomwa after 1200.
- B. No tree remains of any kind are present at the bottom of deeper parts of Lake Tomwa.
- C. There was at least one tree in the lake bed that was alive for the entire period from 1200 to 1320.
- D. There has not been a more recent drought that caused a drying up of the shallow end of the lake.
- E. The shallow end of the lake had been dry for less than 30 years by the time Jeffrey pines started growing in the lake bed.

Extensive housing construction is underway in Pataska Forest, the habitat of a large population of deer. Because deer feed at the edges of forests, these deer will be attracted to the spaces alongside the new roads being cut through Pataska Forest to serve the new residential areas. Consequently, once the housing is occupied, the annual number of the forest's deer hit by cars will be much higher than before construction started.

4. Which of the following is an assumption on which the argument depends?

- A. The number of deer hit by commercial vehicles will not increase significantly when the housing is occupied.
- B. Deer will be as attracted to the forest edge around new houses as to the forest edge alongside roads.
- C. In years past, the annual number of deer that have been hit by cars on existing roads through Pataska Forest has been very low.
- D. The development will leave sufficient forest to sustain a significant population of deer.
- E. No deer hunting will be allowed in Pataska Forest when the housing is occupied.

The surface of Venus contains calcite, a mineral that absorbs the gas sulfur dioxide. Sulfur dioxide is often produced by volcanic activity and is plentiful in Venus' atmosphere, so there must be a source, perhaps volcanic, producing sulfur dioxide on Venus.

5. Which of the following is an assumption on which the argument given depends?

- A. In the recent past, the level of sulfur dioxide in Venus' atmosphere was not much higher than it is now.
- B. If there is volcanic activity on the surface of Venus, it is not adequate to maintain the observed amount of sulfur dioxide in the atmosphere.
- C. The sulfur dioxide in Venus' atmosphere forms clouds that prevent direct observation of the surface.
- D. Sulfur dioxide produced by volcanic activity on the Earth's surface is also absorbed by minerals other than calcite.
- E. The calcite on the surface of Venus is in sufficient supply to continue to absorb sulfur for millions of years to come.

A decrease in face-to-face social contact can precipitate depression. Time spent using the Internet cannot be spent in face-to-face social contact, so psychologists have speculated that sharply increasing Internet use can cause depression. Studies of regular Internet users have found a significantly higher incidence of depression among those who had recently doubled the amount of time they spent using the Internet than among those whose use had not increased. Hence, the psychologists' speculation is correct.

6. Which of the following is an assumption on which the argument depends?

- A. In general, the reason that the people in the studies had doubled their Internet use was not that they had earlier experienced a significant decrease in opportunities for face-to-face social contact.
- B. A sharp decrease in face-to-face social contact is the only change in daily activity that can lead to an increased incidence of depression.
- C. Using the Internet presents no opportunities for people to increase the amount of face-to-face social contact they experienced in their daily lives.
- D. Regular Internet users who are depressed will experience an immediate improvement in mood if they sharply decrease the amount of time they spend on the Internet.
- E. Before they doubled the time they spent on the Internet, the people who did so were already more prone to depression than are regular Internet users in general.

A plant-based automobile fuel has just become available in Ternlan. A car can be driven as far on a gallon of the new plant-based fuel as a car can be driven on a gallon of gasoline, but a gallon of the plant-based fuel both costs less and results in less pollution. Therefore, drivers in Ternland who switch to it will reduce the amount they spend on fuel in a year while causing less environmental damage.

7. Which of the following is an assumption on which the argument relies?

- A. There is no expense associated with operating an automobile that is higher when the automobile uses the plant-based fuel than when it uses gasoline.
- B. Automobiles that have been operated using the plant-based fuel can no longer be operated using regular gasoline.
- C. The environmental damage attributable to automobiles is due almost entirely to the production and combustion of fuel automobiles use.
- D. The advantages of the plant-based fuel over gasoline will not lead those who switch to the plant-

based fuel to do more driving.

E. Most drivers in Ternland will switch from gasoline to the plant-based fuel.

Currently, Sulandian television journalists are twice as likely as other workers to support the Blue Party, and Sulandian journalism students are significantly more likely to support the Blue Party than working television journalists are. Therefore, assuming that these students do not change their political affiliations as they get older, the disparity between the political affiliations of Sulandia's television journalists and those of the rest of the working population will increase as current Sulandian journalism students enter the profession.

8. Which of the following is an assumption on which the argument depends?

A. Few of the television journalists currently working in Sulandia were trained in Sulandian journalism schools.

B. Journalists in Sulandia whose political affiliations differ from those of the general population tend to allow their political views to affect the way they report news about politics.

C. Most of the television journalists currently working in Sulandia who support the Blue Party also supported the Blue Party when they were students.

D. Support for the Blue party is not significantly less common among those current Sulandian journalism students who intend to become television journalists than it is among current Sulandian journalism students as a whole.

E. Classes in Sulandian journalism schools are not taught mainly by working Sulandian journalists.

Biologists studying wild monkeys sometimes need the genetic material DNA from a particular monkey to determine the animal's parentage. Until recently, DNA could be extracted only from blood. Collecting a blood sample required tranquilizing the donor animal. Now DNA can be extracted from hair. Monkeys shed large quantities of hair in places where they sleep. Therefore, researchers will now be able to determine the parentage of individual monkeys from DNA without tranquilizing the monkeys.

9. Which of the following is an assumption on which the argument depends?

A. The places in which monkeys sleep are easily accessible to researchers.

B. Information about a particular monkey's parentage is the only kind of information that can be determined from DNA that has been extracted from that monkey's hair.

C. For at least some samples of hair collected from monkey habitat it will be possible to associate hairs with the individual monkeys from which they came.

D. Examining DNA is the only way to determine the parentage of wild monkeys.

E. It will be necessary to obtain any hair samples used in determining a monkey's parentage from a place where the monkey has slept.

The crustaceans known as harpacticoids are very widespread in marine sediments, where they feed on microorganisms by ingesting the sediment particles to which the microorganisms adhere. Heavy metals, such as those found in industrial pollution, readily adhere to sediment particles. Harpacticoids are poisoned by heavy metals but are unaffected by most other pollutants. Therefore the concentration of harpacticoids in an area is a good indication of whether that marine environment contains heavy metals.

10. Which of the following is an assumption on which the argument relies?

A. Industrial pollution is the principal source of heavy metals in marine sediments.

B. Harpacticoids are the only crustaceans that feed on microorganisms by ingesting sediment particles.

C. Harpacticoids are more susceptible to poisoning by heavy metals than are other marine organisms.

D. The microorganism that harpacticoids feed on are not killed by pollutants that are harmless to harpacticoids.

E. The microorganism that harpacticoids feed on absorb heavy metals.

Benovians set their clocks back an hour for the winter. The result is that, during winter's short days, it is light when most commuters drive to work, but dark when they drive back home. Darkness contributes to accidents. Changing the clocks, however, does not actually increase the amount of driving done in the dark, so it is unlikely to have any effect on Benovia's automobile accident rate.

11. Which of the following is an assumption on which the argument relies?

A. The average number of hours that Benovians drive when it is dark is greater for days during the winter than for days during other times of the year.

B. In Benovia, hazards to safe driving that are made worse by darkness are as likely to occur in the

morning as in the evening.

C. The majority of cars on Benovia's roads during a given day are those of people commuting to or from work.

D. The majority of automobile accidents in Benovia take place when it is dark.

E. Driving conditions are no worse in Benovia in the winter than during the rest of the year.

One of the legends that has been attached to the nineteenth century writer Edgar Allan Poe is that he was addicted to morphine. Poe discussed virtually every known aspect of his life in his letters. However, nowhere in his voluminous correspondence does he mention his reputed morphine addiction. On the basis of this evidence, it is safe to conclude that reports of his supposed addiction are untrue.

12. Which of the following is an assumption on which the argument depends?

A. The symptoms that legend attributes to Poe and that have been taken as evidence of morphine addiction could instead have been caused by a different condition

B. Poe had enemies whose own careers could have been advanced if rumors that Poe was addicted to morphine were widely believed.

C. Poe would not have refrained, out of any considerations of privacy or reputation, from mentioning in his correspondence any addiction that he might have had.

D. Reports claiming that Poe was addicted to morphine did not begin to circulate until after his death.

E. None of the reports of Poe's supposed addiction to morphine can be traced to individuals who knew Poe personally.

Shoreland County recently purchased an area of wilderness land in the county to prevent it from being developed. In doing so, the county has forfeited all future property taxes on this land. Property taxes are assessed on market value, and if developed, the land would have contributed significantly to the county's overall annual tax revenue. Because of the purchase, therefore, overall annual tax revenue will be lower than it would have been if development had occurred.

13. Which of the following is an assumption on which the argument depends?

A. The money the county would have had to expend for services to residences or industry developed on the wilderness land would have exceeded the tax revenue from the developed land.

B. The market value of undeveloped properties in Shoreland County will not increase significantly in the foreseeable future.

C. The property taxes received by Shoreland County from the previous owners of the wilderness area were insignificant relative to the county's overall annual tax revenue.

D. Land near the area bought by the county will not increase significantly in market value as a result of being near wilderness that is protected from development.

E. Shoreland County will not in the foreseeable future prevent the development of any other land in the county.

Some conservationists, concerned about the rapid depletion through poaching of elephant herds in certain parts of Africa, are urging countries to which ivory is sold to ban ivory importation. This ban, they argue, would prevent ivory sellers from reaching their market, and elephant herds would have a chance to recover.

14. The conservationists' recommendation as described is based on which of the following assumptions?

A. The capacity of any illegal channels that may exist for the sale of ivory in export markets cannot expand to meet demand in those markets

B. There now exist synthetic substitutes for ivory that are essentially indistinguishable from the natural product

C. Bans on imports of ivory need to be combined with intensified efforts to stop poaching in order to be effective

D. To the economies of those countries that have significant elephant herds, elephants are more valuable alive than dead

E. In some parts of Africa where poaching has depleted elephant herds, those herds are already beyond recovery

In an experiment, a group of pregnant mice were each given food containing minute doses of the hormone BPA. A control group of pregnant mice were given no BPA. Offspring of mothers that had been given BPA were 10 percent bigger when weaned from their mothers than were offspring of mothers in the control group. Clearly, this result supports the hypothesis that the physical development

of mice is significantly affected by prenatal exposure to BPA.

15. Which of the following is an assumption on which the argument depends?

- A. Prenatal exposure of mice to doses of BPA even smaller than those used in the experiment would not have significantly affected the physical development of the mice.
- B. At birth, there was no difference in size between offspring of mothers that had been given BPA and offspring of mothers in the control group.
- C. Postnatal exposure of mice to BPA before the mice are weaned has significant effects on the physical development of the mice.
- D. Exposure of a pregnant mouse to the doses of BPA used in the experiment does not significantly enhance its ability nurse its offspring.
- E. Significant differences in size between offspring of mothers that had been given BPA and offspring of mothers in the control group persisted long after the offspring were weaned

A year ago, the government of Portran predicted that Torre City would experience strong net job growth for the following year but that Glanville, Portran's other major city, would not. Events have clearly proved otherwise, however; in Torre City, but not in Glanville, the number of people who are unemployed is greater now than it was a year ago.

16. Which of the following is an assumption on which the editorial's argument depends?

- A. The unemployment rate is higher in Torre City than in Glanville.
- B. The unemployment rate in Torre City is higher now than it has ever been.
- C. Since making the prediction a year ago, the government of Portran has taken no steps to improve job growth in the country.
- D. Few, if any, unemployed people moved to Torre City from Glanville during the year.
- E. Government predictions about the economy in Portran are generally not reliable.

Belnovia's government provides health care to all its citizens. Five years ago, with costs incurred from smoking-related health problems accounting for 5 percent of annual government expenditures, Belnovia's health agency initiated a nationwide antismoking campaign. Although the campaign succeeded in reducing the number of smokers in Belnovia substantially, it clearly failed to reduce the annual costs incurred from smoking-related health problems, since these costs currently account for 6 percent of annual government expenditures.

17. Which of the following is an assumption on which the argument depends?

- A. Costs incurred from smoking-related health problems account for a greater portion of the Belnovian government's overall health expenditures now than they did five years ago.
- B. The average cost of treatment for smoking related health problems in Belnovia has not increased significantly over the past five years.
- C. Overall health expenditure account for a greater portion of the Belnovian government's annual expenditures now than they did five years' ago
- D. Belnovia's annual government expenditures are not significantly lower now than they were five years ago.
- E. Smoking-related health problems usually persist long after a person has quit smoking

### Question Type Seven: Sufficient Assumption

X-ray examination of a recently discovered painting—judged by some authorities to be a self-portrait by Vincent van Gogh—revealed an underimage of a woman's face. Either van Gogh or another painter covered the first painting with the portrait now seen on the surface of the canvas. Because the face of the woman in the underimage also appears on canvases van Gogh is known to have painted, the surface painting must be an authentic self-portrait by van Gogh.

1. The conclusion is properly drawn if which of the following is assumed?

- A. If a canvas already bears a painted image produced by an artist, a second artist who uses the canvas to produce a new painting tends to be influenced by the style of the first artist.
- B. Many painted canvases that can be reliably attributed to van Gogh contain underimages of subjects that appear on at least one other canvas that van Gogh is known to have painted.
- C. Any painted canvas incorrectly attributed to van Gogh would not contain an underimage of a subject that appears in authentic paintings by that artist.



- D. A painted canvas cannot be reliably attributed to an artist unless the authenticity of any underimage that painting might contain can be reliably attributed to the artist.
- E. A painted canvas cannot be reliably attributed to a particular artist unless a reliable x-ray examination of the painting is performed.

When on an airplane, Consuelo never enjoys movies that have been widely recommended because the poor quality of the picture spoils her enjoyment. Since in no circumstances does she ever enjoy movies that have been widely derided, it follows that she never enjoys movies on airplanes.

2. Which of the following, if true, would enable the conclusion of the argument to be properly drawn?
- A. The only place where Consuelo enjoys widely recommended movies is a movie theater.
- B. Widely recommended movies are never shown on airplane.
- C. If a movie shown on an airplane is not widely derided, then it is invariably widely recommended.
- D. If the picture quality of the movies shown on airplanes was better, Consuelo would enjoy the widely recommended movies.
- E. Some movies are neither widely recommended nor widely derided.

### Question Type Eight: Strengthen

Sparva, unlike Treland's other provinces, requires automobile insurers to pay for any medical treatment sought by someone who has been involved in an accident; in the other provinces, insurers pay for nonemergency treatment only if they preapprove the treatment. Clearly, Sparva's less restrictive policy must be the explanation for the fact that altogether insurers there pay for far more treatments after accidents than insurers in other provinces, even though Sparva does not have the largest population.

1. Which of the following, if true, most strengthens the argument?
- A. Car insurance costs more in Sparva than in any other province.
- B. The cost of medical care in Sparva is higher than the national average.
- C. Different insurance companies have different standards for determining what constitutes emergency treatment.
- D. Fewer insurance companies operate in Sparva than in any other province.
- E. There are fewer traffic accidents annually in Sparva than in any of the provinces of comparable or greater population.

Although the percentage of first graders in Almaria who were excellent readers varied little between 1995 and 2010, the percentage of first graders who had considerable difficulty reading their schoolbooks increased markedly during that period. This evidence strongly indicates that the average reading ability of first graders decreased between 1995 and 2010.

2. Which of the following, if true, provides the strongest additional support for the argument?
- A. The number of hours devoted to reading activities in first-grade classrooms in Almaria did not vary significantly, on average, between 1995 and 2010.
- B. The percentage of first graders in Almaria who had difficulty solving arithmetic problems did not increase as much between 1995 and 2010 as did the percentage of first graders who had reading difficulties.
- C. The number of children in Almaria who were enrolled as first graders decreased steadily between 1995 and 2010.
- D. The average difficulty of the schoolbooks used in first-grade classrooms in Almaria decreased between 1995 and 2010.
- E. The average number of schoolbooks used in first-grade classrooms in Almaria increased between 1995 and 2010.

The Minoan civilization flourished on the island of Crete around 2000 B.C. The discovery on Crete of large numbers of bronze implements and the furnaces used in their manufacture shows that the Minoans had a thriving bronze industry. Moreover, many bronze artifacts from this period that are similar in style to those produced on Crete have been found in southern Greece. Hence it is probable that, besides making bronzeware for domestic use, the Minoans exported bronzeware to southern Greece.

3. Which of the following, if true, most strengthens the argument given?

- A. Copper and tin, the main ingredients of bronze, were present in Southern Greece.
- B. No furnaces dating from the Minoan era and suitable for the manufacture of bronze implements have been found in southern Greece.
- C. The Minoans exported a great deal of pottery, which was highly valued by other ancient civilizations.
- D. The fuel needed for Minoan bronzeware furnaces was provided by a variety of local species of hardwood.
- E. Some of the pieces of bronzeware found on Crete were non-Minoan in origin.

The thylacine, a slender, wolf-like predator, lived on mainland Australia until about 3,000 years ago. The thylacine disappeared from the mainland shortly after the dingo, a kind of wild dog, was first brought to Australia. Dingoes flourished in Australia and preyed on many of the same animal species on which the thylacine relied. Thus, the introduction of the dingo probably caused the thylacine's disappearance there.

4. Which of the following, if true, most strengthens the argument?

- A. Dingoes also preyed on animal species that thylacines did not prey on
- B. On the Australian island of Tasmania, which was never inhabited by dingoes, thylacines survived into the 1900s
- C. The largest thylacines in Australia were much larger than dingoes
- D. Much of the dingo's diet today consists of animal species that were not found in Australia 3000 years ago.
- E. Thylacines relied on their stamina rather than their speed to capture prey

In Gilavia, the number of reported workplace injuries has declined 16 percent in the last five years. However, perhaps part of the decline results from injuries going unreported: many employers have introduced safety-incentive programs, such as prize drawings for which only employees who have a perfect work-safety record are eligible. Since a workplace injury would disqualify an employee from such programs, some employees might be concealing injury, when it is feasible to do so.

5. Which of the following, if true in Gilavia, most strongly supports the proposed explanation?

- A. In the last five years, there has been no decline in the number of workplace injuries leading to immediate admission to a hospital emergency room.
- B. Employers generally have to pay financial compensation to employees who suffer work-related injuries.
- C. Many injuries that happen on the job are injuries that would be impossible to conceal and yet would not be severe enough to require any change to either the employee's work schedule or the employee's job responsibilities.
- D. A continuing shift in employment patterns has led to a decline in the percentage of the workforce that is employed in the dangerous occupations in which workplace injuries are likely.
- E. Employers who have instituted safety-incentive programs do not in general have a lower proportion of reported workplace injuries among their employees than do employers without such programs.

Recently an unusually high number of dolphins have been found dead of infectious diseases, and most of these had abnormally high tissue concentrations of certain compounds that, even in low concentrations, reduce dolphins' resistance to infection. The only source of these compounds in the dolphins' environment is boat paint. Therefore, since dolphins rid their bodies of the compounds rapidly once exposure ceases, their mortality rate should decline rapidly if such boat paints are banned.

6. Which of the following, if true, most strengthens the argument?

- A. The levels of the compounds typically used in boat paints today are lower than they were in boat paints manufactured a decade ago.
- B. In high concentrations, the compounds are toxic to many types of marine animals.
- C. The compounds break down into harmless substances after a few months of exposure to water or air.
- D. High tissue levels of the compounds have recently been found in some marine animals, but there is no record of any of those animals dying in unusually large numbers recently.
- E. The compounds do not leach out of the boat paint if the paint is applied exactly in accordance with the manufacturer's directions.

The dusky salamander lives only in slow-moving streams where organic debris settles and accumulates. In almost all places in New York State where dusky salamanders used to live, suburban development has cleared uplands and put down asphalt. As a result, rainwater now runs directly into

streams, causing increased flow that slows the accumulation of organic sediments. Therefore, it is probably the increased flow caused by suburban development that is responsible for the dusky salamander's virtual disappearance from New York State.

7. Which of the following, if true, most strongly supports the argument?

- A. Since 1980 the suburban population of New York State has grown ten times faster than its urban population.
- B. Dusky salamanders have disappeared in the past ten years from some suburban areas of New York State that were originally developed more than a century ago and that have not experienced significant development for decades.
- C. The two-line salamander, a species that lives in both slow- and swift-moving waters, continues to thrive in streams in New York State from which dusky salamanders have disappeared.
- D. Suburban development in New York State contributes significantly to pollution of local streams with lawn fertilizers that are poisonous to most small aquatic animals.
- E. Much of the suburban development in New York State has been occurring in areas that never provided prime habitat for dusky salamanders.

That sales can be increased by the presence of sunlight within a store has been shown by the experience of the only Savefast department store with a large skylight. The skylight allows sunlight into half of the store, reducing the need for artificial light. The rest of the store uses only artificial light. Since the store opened two years ago, the departments on the sunlit side have had substantially higher sales than the other.

8. Which of the following, if true, most strengthens the argument?

- A. On particularly cloudy days, more artificial light is used to illuminate the part of the store under the skylight.
- B. When the store is open at night, the departments in the part of the store under the skylight have sales that are no higher than those of other departments.
- C. Many customers purchase items from departments in both parts of the store on a single shopping trip.
- D. Besides the skylight, there are several significant architectural differences between the two parts of the store.
- E. The departments in the part of the store under the skylight are the departments that generally have the highest sales in other stores in the Savefast chain.

The plant called the scarlet gilia can have either red or white flowers. It had long been thought that hummingbirds, which forage by day, pollinate its red flowers and that hawkmoths, which forage at night, pollinate its white flowers. To try to show that this pattern of pollination by color exists, scientists recently covered some scarlet gilia flowers only at night and others only by day: plants with red flowers covered at night became pollinated; plants with white flowers covered by day became pollinated.

9. Which of the following, if true, would be additional evidence to suggest that hummingbirds are attracted to the red flowers and hawkmoths to the white flowers of the scarlet gilia?

- A. Uncovered scarlet gilia flowers, whether red or white, became pollinated at approximately equal rates.
- B. Some red flowers of the scarlet gilia that remained uncovered at all times never became pollinated.
- C. White flowers of the scarlet gilia that were covered at night became pollinated with greater frequency than white flowers of the scarlet gilia that were left uncovered.
- D. Scarlet gilia plants with red flowers covered by day and scarlet gilia plants with white flowers covered at night remained unpollinated.
- E. In late August, when most of the hummingbirds had migrated but hawkmoths were still plentiful, red scarlet gilia plants produced fruits more frequently than they had earlier in the season.

Professor Hassan: In support of the broad claim that the mainstream press accepts and propagates biased assumptions and never presents countervailing information, Dr. North cites a large number of newspaper articles that incorporate such assumptions and then provides evidence against those assumptions. Few would wish to defend the articles that Dr. North cites, but the procedure Dr. North used in gathering evidence against the assumptions in the articles undermines North's overall claim.

10. Which of the following, if true, provides the strongest foundation for Professor Hassan's judgment of Dr. North's analysis?

- A. Print journalists rarely have the time or space in which to present a full and scholarly investigation of a topic.
- B. Readers of the mainstream press are not uncritical of what they find in it, since events have often proved previously accepted information to have been incorrect.
- C. The evidence that Dr. North uses to contradict assumptions inherent in selected newspaper articles would be equally effective for exposing errors made in broadcast journalism.
- D. Dr. North has selected newspaper articles that focus on only a small number of the many assumptions prevalent in the mainstream press.
- E. Most of the evidence Dr. North uses to contradict the assumptions in the article comes from the mainstream press.

Although several ancient cultures practiced mummification, mummies from ancient Egypt are generally more well-preserved than mummies of similar antiquity from other cultures. One possible explanation for this difference is that the mummification techniques or material used by ancient Egyptians were better than those of other cultures. A second, more likely, explanation is that the extremely dry climate of ancient Egypt was largely responsible, given that dryness promotes the preservation of organic remains generally.

11. Which of the following provide the most support for the argument?

- A. The materials used by ancient Egyptians for mummification were not used by any other ancient culture that practiced mummification
- B. Some ancient Egyptian mummies are better preserved than other ancient Egyptian mummies from around the same time.
- C. No ancient people living in very damp areas practiced mummification.
- D. Bodies from ancient Egyptian tombs dating from before the practice of mummification began are almost as well preserved as ancient Egyptian mummies.
- E. Ancient mummies discovered in places other than Egypt have typically not been as well protected from the elements as ancient Egyptian mummies were.

The standard technique for studying the molecular structure of proteins involves growing crystals of the proteins and observing how these crystals deflect x-rays. Recently a new, much more intense source of x-rays has become available. This source will allow scientists to work with much smaller protein crystals, which can be grown more quickly. Scientists are predicting that the new x-ray source will greatly facilitate study of the molecular structure of proteins.

12. Which of the following, if true, provides the scientists with the strongest additional reason for making their prediction?

- A. Most laboratories that currently use the standard technique cannot afford to purchase the equipment necessary to use the new source
- B. The likelihood that an unusable flawed crystal will be produced increases with the size of the crystal being grown
- C. The new source of x-rays is more effective for studying relatively small protein crystals than for studying large protein crystals
- D. If crystals of a given protein can be grown, there is no theoretical limit on the maximum size of those crystals
- E. The molecular structure of proteins can also be studied through the use of efficient high-powered electron microscope

An alarming number of Mediterranean monk seals, an endangered species, have recently died. Postmortem analysis showed the presence of an as yet unidentified virus, as well as evidence of a known bacterial toxin. Seawater samples from the area where the seals died did contain unusually high concentrations of the toxic bacterium. Therefore, although both viruses and bacterial toxins can kill seals, it is more likely that these deaths were the result of the bacterial toxin.

13. Which of the following, if true, provides additional evidence to support the conclusion?

- A. Viruses are much more difficult to identify in postmortem analysis than bacteria are.
- B. Mediterranean monk seals are the only species of seal in the area where the bacterium was found.
- C. The bacterium is almost always present in the water in at least small concentrations.
- D. Nearly all the recent deaths were among adult seals, but young seals are far more susceptible to viruses than are adult seals.
- E. Several years ago, a large number of monk seals died in the same area as a result of exposure to a

different bacterial toxin.

A law has been proposed requiring the cargo boxes of trucks carrying gravel to be covered by a tarpaulin, because vehicles driving close behind open-topped gravel trucks can be damaged by gravel flying off these trucks. The law is unlikely to substantially reduce such damage, however: flying gravel is much less likely to come from the cargo box itself than from the grooves of the tires, in which gravel can become wedged during loading.

14. Which of the following, if true, provides the strongest support for the argument given?
- A. The drivers of vehicles behind a gravel truck are more likely to remain close behind the truck if the truck's cargo box is covered than if it is uncovered.
  - B. Most trucks that carry gravel already carry tarpaulins that their drivers use to cover the cargo box when they are carrying sand, which can blow out of the cargo box in significant quantities.
  - C. Of all the damage that occurs to vehicles on the highway, debris that flies off trucks is the cause of only a very small fraction.
  - D. The proposed law allows open-topped trucks on the highway to have uncovered cargo boxes whenever their cargo boxes are empty.
  - E. Because of the great weight of a load of gravel, the driver of a gravel truck is often driving much more slowly than most of the other vehicles on the road.

For 20 years all applicants for jobs as technicians at EquipCorp were required to demonstrate that they could operate and repair the machinery that was central to EquipCorp's manufacturing business. Now, however, that particular machinery is obsolete, and very different machinery fills the central role. Therefore, the old requirement is no longer a useful method for evaluating whether applicants for jobs as technicians at EquipCorp have the skills necessary for the job.

15. Which of the following, if true, most strengthens the argument?
- A. The machinery that is now obsolete was used by a large number of manufacturing companies before it became obsolete.
  - B. Among the people already holding jobs as technicians at EquipCorp, those who are most skillful at operating the new machinery had been some of the least skillful at operating the old machinery.
  - C. Most people applying for jobs as technicians today have much broader skills than did people applying for jobs as technicians 20 years ago.
  - D. The skills required to operate and repair the obsolete machinery are useful in operating and maintaining many other types of machinery at EquipCorp that are not obsolete.
  - E. Much of the machinery that EquipCorp now uses in manufacturing is very likely to become obsolete within the next 20 years.

Iridium, a hard, whitish metal similar to platinum, is extremely rare on Earth. Extremely high concentrations of iridium on Earth result from only two scenarios: massive volcanic eruptions that release iridium from deep within the Earth and meteorites that shower down on Earth from space. When scientists found concentrations of iridium 30 times higher than normal in rock stratum from 65 million years ago, they concluded that a massive meteor or comet hit the Earth and caused the massive extinction of the dinosaurs.

16. Which of the following, if true, most strongly supports the scientist's conclusion?
- A. Volcanoes massive enough to generate high concentrations of iridium are very rare.
  - B. Massive volcanic eruptions occurred frequently 80 million years ago.
  - C. Most scientists support the hypothesis that a cosmic impact wiped out the dinosaurs.
  - D. The massive extinction that occurred 70 million years ago killed not only the dinosaurs but also 70 percent of all life on Earth.
  - E. A comet struck the earth some 120 million years ago, but no widespread extinction occurred.

Upon maturity, monarch butterflies travel hundreds of miles from their places of origin and lay their eggs on milkweed. The caterpillars that emerge feed on milkweed and absorb the glycosides in milkweed sap. The specific glycosides present in milkweed differ from region to region within the monarch butterfly's range. Since mature butterflies retain the glycosides, the glycosides in a mature monarch butterfly could be used to determine its place of origin.

17. Which of the following, if true, most strengthens the argument?
- A. Mature monarch butterflies do not feed on parts of milkweed that contain glycosides.

- B. The glycosides in milkweed sap are slightly toxic to caterpillars of other species.
- C. The vast majority of the monarch butterflies that are laying eggs in a given region will have traveled there from a single region.
- D. There are substances other than glycosides in milkweed sap that accumulate in a monarch caterpillar and are retained in the body of the mature butterfly.
- E. There are certain glycosides that are found in the sap of all milkweeds, no matter where they grow within the monarch butterfly's range.

In the 1600s there was intense competition in Europe to discover how to make porcelain. The two groups of Europeans working in China—Dutch merchants and French missionaries—each tried to discover the Chinese manufacturers' secrets. The first French missionary journal, was not published until 1717, several years after European porcelain manufacture began. Therefore, rather than copying the Chinese techniques, the European manufacturers must have learned by experiment.

18. Which of the following, if true, provides the strongest support for the argument?
- A. The techniques used by the first European makers of porcelain were essentially identical to techniques that Chinese porcelain maker used.
  - B. The first European-manufactured porcelain items were comparable in quality to some of the lower-quality porcelain that was then being imported into Europe from China.
  - C. The manuscript from which the 1717 journal article was published had been written down by French missionaries in China and sent to France some years before 1717.
  - D. The particular raw materials that are needed to make porcelain were not used in European ceramic making until the manufacture of porcelain began.
  - E. The first porcelain factory in Europe was founded in Germany by a manufacturer who had no channels of communication with China or Europeans working in China.

The ship Mary Rose, first launched in 1511, underwent extensive repairs in 1528 and 1536 and sank in 1543. Researchers raised the ship in 1982 and analyzed the wreck's preserved timbers; some timbers came from trees felled after 1511, so they must have been added during repair. There were some beams, however, that came from trees felled before 1511. It is likely, therefore, that these beams were part of the original ship.

19. Which of the following, if true, most strengthens the argument?
- A. The repair caused the Mary Rose to be significantly more difficult to handle and ultimately may have led to the ship's sinking.
  - B. The beams were fastened with wooden nails that came from trees felled after 1511.
  - C. The beams came from a part of the ship that quite commonly needs to be repaired every few years.
  - D. One structurally important timber came from a tree felled after 1528.
  - E. Shipbuilders of the 1500s preferred to work with recently felled wood that was still green with sap.

Tea is rich in compounds called polyphenols, which are similar to certain compounds known to help prevent cancer. Among people in Japan, those who drink over ten cups of tea per day have lower rates of stomach cancer than others. On average, people in Japan drink much more tea than people in the United States and have lower rates of lung cancer. It is therefore likely that polyphenols also help prevent cancer.

20. Which of the following, if true, provides the most support for the argument?
- A. Smoking, a known cause of lung cancer, is more common in Japan than it is in the United States.
  - B. Few people in the United States drink more than ten cups of tea per day.
  - C. Stomach cancer is much more common in Japan than it is in the United States.
  - D. Soy products, which are known to help prevent cancer, are more widely used in Japan than in the United States.
  - E. Coffee, which like tea is a source of caffeine, is more popular in the United States than in Japan.

Tropical forests typically have many more species of plants and animals than do temperate forests of comparable size. During the Ice Age, forests in temperate regions were destroyed, while those in the tropics were not. Accordingly, one proposed explanation of this difference in the number of species is that tropical forests typically had a much longer period than temperate forests in which different species could take hold.

21. Which of the following, if true, most strongly supports the proposed explanation?
- A. The greater warmth of tropical forests enables them to sustain a greater density of plants and

animals than temperate forests can.

B. There is virtually no overlap between the species that are found in tropical forests and those found in temperate forests.

C. Some areas that were temperate forests before the Ice Age are no longer forested.

D. The number of plants and animal species is no greater in tropical forests that have arisen since the Ice Age than in temperate forests of comparable size.

E. A change in climate tends to increase the rate at which new species become established in a region.

### Question Type Nine: Evaluation

A mouse's immune system generally rejects proteins different from those produced by that mouse. The immune system of a pregnant mouse does not, however, reject the mouse's fetuses, although the fetal tissue a fetus produces as it develops typically contains many such proteins. Some scientists hypothesize that the placenta surrounding the fetus typically blocks the mother's immune system. But others, noting that the placenta produces IDO, an enzyme that suppresses the immune system, hypothesize that IDO plays a crucial role in protecting the fetus.

1. In order to choose between the two hypotheses, it would be most useful to determine which of the following?

A. whether mice sometimes produce IDO when they are not pregnant

B. whether the immune systems of fetal mice are capable of attacking the tissue of the mother

C. whether there are cases in which the immune system of a pregnant mouse rejects some fetuses but not others

D. whether IDO is the only substance capable of suppressing the immune system produced by mice

E. whether the immune systems of pregnant mice that are given a drug that inhibits IDO production subsequently reject the fetus.

When rats are placed under conditions of stress, their adrenal glands immediately increase production of the hormone corticosterone, and soon thereafter the rats' white blood cell count drops substantially. Yet rats without functioning adrenal glands experience little decrease in white blood cell count when placed under conditions of stress. It is likely, therefore, that an increase in corticosterone produced by a rat's adrenal glands causes the rat's white blood cell count to decrease.

2. Which of the following would it be most useful to know in evaluating the reasoning of the argument?

A. Whether the drop in white blood cell count that occurs in rats under conditions of stress is sufficient to make the rats more susceptible to diseases that white blood cells normally combat

B. Whether normal white blood cell counts vary widely among healthy rats that are not under conditions of stress

C. Whether the adrenal glands of rats that are under conditions of stress increase production of any hormone other than corticosterone

D. Whether the adrenal glands of rats produce elevated levels of corticosterone on occasions when the rats are not under conditions of stress

E. Whether rats' adrenal glands are affected by hormones produced by any of the rats' other organs.

Spiders of many species change color to resemble the color of the flowers they sit on. Many animals that prey on such spiders possess color discrimination so acute that they, unlike human beings, can readily see the spiders despite the seeming camouflage. It is unlikely, therefore, that the spiders' color changes confer significant survival benefit on these spiders.

3. Which of the following would it be most useful to determine in order to evaluate the argument?

A. Whether the spiders' own ability to discriminate color-camouflaged species is as acute as that of their predators

B. Whether the spiders have a color that could properly be regarded as their natural color

C. Whether the spiders' color-changes allow them to remain undetected by prey

D. Whether different species of color-changing spiders tend to favor different species of flower

E. Whether the color-changing spiders prey on any insects that themselves change color

Pharmaceuticals imported into Bornland are inspected for quality to the extent that staff limitations

permit. For the last few years, the proportion of shipments examined that have been found to be deficient has been consistently around 25 percent. This year, the number of inspectors and inspections was doubled, and only 21 percent of shipments inspected were found deficient. Clearly, therefore, the quality of pharmaceuticals being imported into Bornland has greatly improved.

4. The answer to which of the following would be most helpful in evaluating this argument?
- A. What is the maximum fine that the inspectors can impose when they find that an importer's pharmaceutical shipments are of deficient quality?
  - B. Can the newly hired inspectors detect deficiencies in shipments at least as well as their more experienced colleagues?
  - C. Is Bornland currently a major exporter of pharmaceutical products?
  - D. How many pharmaceutical companies import pharmaceuticals into Bornland?
  - E. When did Bornland first consider the hiring of additional inspectors for pharmaceutical imports?

### Question Type Ten: Logical Completion

Observations of the Arctic reveal that the Arctic Ocean is covered by less ice each summer than the previous summer. If this warming trend continues, within 50 years the Arctic Ocean will be ice free during the summer months. This occurrence would in itself have little or no effect on global sea levels, since the melting of ice floating in water does not affect the water level. However, serious consequences to sea levels would eventually result, because \_\_\_\_\_.

1. Which of the following most logically completes the passage?
- A. large masses of floating sea ice would continue to form in the wintertime
  - B. significant changes in Arctic sea temperatures would be accompanied by changes in sea temperatures in more temperate parts of the world
  - C. such a warm Arctic Ocean would trigger the melting of massive landbased glaciers in the Arctic
  - D. an ice-free Arctic Ocean would support a very different ecosystem than it does presently
  - E. in the spring, melting sea ice would cause more icebergs to be created and to drift south into shipping routes

The economy of Colonia has been in recession for the past eight years. Most companies that have not been forced into bankruptcy have survived thanks to the high efficiency of the employees they retained, which helped the companies control costs. In recent months, however, the Colonial economy has begun to recover, and companies are beginning to expand their workforces. Colonia, therefore, will soon experience a drop in average worker efficiency, since \_\_\_\_\_.

2. Which of the following, if true, most logically complete the argument?
- A. people who have been employed throughout the recession will, no doubt, continue to be employed
  - B. Colonia is expected to begin importing more goods from other countries
  - C. most companies will find that few of the workers available for hiring are as efficient as those they retained during the recession.
  - D. during the recession, workers did not receive any raise in their pay.
  - E. many companies that were forced into bankruptcy in the past eight years had a fair number of efficient workers.

A hoard of coins recently unearthed at an ancient Carthagian site bear an image of a face in profile with what appears to be a large mole on the cheek. Pointing out that an artist would be unlikely to include such a specific detail in a generalized portrayal of a face, some archaeologists have concluded that these coins portray an actual individual rather than an idealized type. However, this conclusion is unwarranted, since \_\_\_\_\_.

3. Which of the following most logically completes the argument?
- A. archaeologists cannot determine the actual identity of the individual portrayed just from the likeness that appears on the coins
  - B. it cannot be established with certainty that Carthagian artists were on the whole less skillful at portraying human face than artists of other cultures
  - C. none of the other designs of Carthagian coins that have been discovered features a face with a mole on it



- D. in ancient times it was quite common for the money circulated in a city or country to include coins that originated in other jurisdictions.
- E. the relatively soft metal used for Carthagian coin molds sometimes resulted in the production of series of coins with unintended bumps

People widely believed that the controlled use of fire originated 200,000 years ago with the human species *Homo sapiens*. However, a site containing a deposit, estimated to be nearly 500,000 years old, consisting of charcoal, burned animal bones, and charred rocks, has recently been found. Although *homo sapiens* did not exist at that time, this discovery provides no basis to the claim that the controlled use of fire preceded the *Homo sapiens*, since \_\_\_\_\_.

4. Which of the following most logically completes the passage?
- A. the use of fire might have originated independently in several different parts of the world
- B. it is possible that fire was used much earlier than 500,000 years ago
- C. the charred rocks found in the deposit included several different kinds of stone, all of which are common in the immediate vicinity of the site
- D. animal bones could have been discarded in a fire used for purposes such as protection or heat rather than for cooking
- E. it is impossible to determine whether a charred deposit dating from so long ago resulted from a fire caused by lightening or from the purposeful use of fire

Because of strong overall stylistic similarities, prehistoric cave paintings in El Castillo, Spain and others in Altamira, Spain, were thought to date from the same period. Recent pigment analyses, however, established the Altamira paintings as by far the older and as about the same age as a third group of paintings done in a different overall style. Nevertheless, this case does not prove that stylistic similarities cannot be a reliable indicator of closeness in age, since \_\_\_\_\_.

5. Which of the following most logically completes the passage?
- A. experts who knew the results of the pigment analyses reexamined these paintings and found no previously unnoticed stylistic similarities between the Altamira paintings and the paintings in the third group
- B. there are certain stylistic features that the Altamira paintings share with all known paintings of their period and do not share with the El Castillo paintings
- C. before dating by pigment analysis was widely practiced, stylistic similarities were the only means of determining whether two prehistoric cave paintings dated from the same period
- D. determining the age of a prehistoric cave painting simply by reference to the age of the pigments used in that painting substitutes technology for artistic judgment
- E. there are experts who maintain that the results of the recent pigment analyses leave the striking stylistic similarities between the El Castillo paintings and the Altamira paintings unexplained

Members of the San, a hunter-gatherer society, have a diet far richer in fruits and vegetables and lower in salt than is typical in industrialized societies. They also differ from industrialized societies in that they have extremely low rates of high blood pressure and obesity. However, contrary to what some have claimed, if people in industrialized societies adopted the San's diet, the incidence of high blood pressure and obesity in these societies might not be dramatically reduced, because \_\_\_\_\_.

6. Which of the following most logically completes the passage?
- A. psychological stress, which can also cause high blood pressure, occurs in both industrialized and nonindustrialized societies
- B. the San's low-salt diet is due, not to preference, but to the limited availability of salt in their region
- C. a few members of the San have been found to suffer from circulatory system ailments other than high blood pressure
- D. members of the San are far more physically active than are most members of industrialized societies
- E. not all individuals with high blood pressure are obese

For the first time, funding for designing experiments to be conducted during space flights has been made available by the government space program to university biologists not already employed by the space program. From the fact that little interest has been expressed in this offer, however, it cannot be concluded that virtually the only biologists interested in research that such experiments could address are those biologists already employed by the space program, since \_\_\_\_\_.

7. Which of the following most logically complete the passage?
- A. Relatively few of the biologists already employed by the space program have ever held university

positions

- B. There are more research biologist in industry than at universities.
- C. Biologists are not the only scientists interested in research that could be furthered by the opportunity to conduct experiments in space
- D. The space program employs only a small percentage of the research biologists employed by the government.
- E. Much of the biological research currently funded by the government's space program is concerned with the biological effects of a weightless environment.

Unlike most plants, cactuses absorb carbon dioxide from the air mainly at night. Night air contains greater quantities of certain types of carbon than does daytime air. Consequently, these types of carbon are more common in cactuses than in most other plants. Quintral plants, however, which grow as parasites on cactuses, contain nearly the same proportions of these types of carbon as cactuses. Therefore, quintral plants probably take significant quantities of carbon from their cactus hosts, since \_\_\_\_\_.

8. Which of the following most logically completes the passage above?

- A. in the desert climates where cactuses grow, carbon dioxide is significantly more abundant in the air during the day than at night.
- B. cactuses that have quintral plants growing as parasites on them do not absorb as much carbon dioxide from the air as do cactuses of comparable size that are free of parasites.
- C. quintral plants are the only kind of parasites that grow on such kinds of cactuses.
- D. in areas where quintral plants are common, individual cactuses often have several such plants.
- E. nearly all of the carbon dioxide absorbed from the air by quintral plants is absorbed during the day.

The *Menkentown Business Herald* dated June 4, 1965, carried an article about four dry cleaners in Menkentown and reported that in 1964 each of them took in a larger proportion of the total dollar amount spent by Menkentown residents at dry cleaners than it had in 1963. Assuming that the article is accurate and that during 1963 and 1964 no Menkentown resident patronized any dry cleaner outside of Menkentown, it follows that \_\_\_\_\_.

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

- A. the average cost of having an article of clothing dry-cleaned was higher in 1964 than in 1963
- B. total revenues received by Menkentown's dry cleaners increased between 1963 and 1964
- C. there were more than four dry cleaners in Menkentown in 1963
- D. the total number of dry cleaners in Menkentown increased during 1963
- E. some dry cleaners in Menkentown that were in operation in 1963 were not in operation in 1964

Fuel cells produce energy by reaction between hydrogen and atmosphere oxygen. Automobiles powered by fuel cells are touted as gasoline-conserving alternatives to conventional automobiles. However, automobiles cannot safely carry tanks of hydrogen. One type of fuel cell solves this problem by extracting hydrogen in small quantities, as needed, from gasoline. Although such fuel cells perpetuate gasoline usage, their widespread adoption would have a moderating effect on the country's total gasoline consumption, since \_\_\_\_\_.

10. Which of the following most logically completes the passage above?

- A. automobile powered by fuel cells of the type travel farther per gallon of gasoline than automobile powered by conventional engine
- B. there are other types of fuel cells that avoid the use of gasoline altogether by extracting hydrogen from alcohol.
- C. automobile powered by this type of fuel cells would be outnumbered by those powered by those conventional gasoline engines for many years.
- D. carbon dioxide, an atmosphere pollutant, is emitted by both the extraction of hydrogen from gasoline and the combustion of gasoline in a conventional automobile engine.
- E. automobiles powered by conventional engines cannot readily converted to run on fuel cells.

Virtually everyone who speaks Torvic lives in Torvia, a small country that takes pride in its unique culture. Since Torvia trades with many other countries, however, most people who live in Torvia speak several languages, and many languages are taught in Torvia's public schools. Nevertheless, from these facts it should not be inferred that most speakers of Torvic speak several languages, because \_\_\_\_\_.

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

- A. very few languages are as difficult to learn as a second language as Torvic is
- B. of all the people in the world who speak several languages, only a small minority speak Torvic
- C. few people who live in Torvia actually speak Torvic
- D. few people who live in Torvia have ever lived outside Torvia
- E. some of the languages taught in Torvia's public schools are not spoken in any of the country

In past studies, young people have typically outperformed older people on identical tasks requiring short-term memory. A new study shows that, for younger subjects, recall based on short-term memory is better in the afternoon than in the morning, whereas for older subjects it is better in the morning than in the afternoon. Since in past studies of short-term memory nearly all of the tests measuring short-term memory were conducted solely in the afternoon, \_\_\_\_\_.

12. Which of the following most logically completes the argument given?
- A. most of the subjects in short-term memory studies conducted in the past performed better as the testing session wore on
  - B. the past studies have not clearly established that young people typically have better recall based on short-term memory than do older people
  - C. there are not significant differences according to the time of day in the long-term memory of both younger and older people
  - D. younger people will find that for the recall based on short-term memory is better late at night than in the afternoon
  - E. if short-term memory tests were to be conducted solely in the morning, older people would outperform younger people by a wide margin

The pepper *Capsicum chinense* grows as a native wild plant only in South America. Birds swallow the pepper's fruit whole, thereby providing the plant with its means of distributing seeds. Domesticated varieties of *C. chinense* grow in the Caribbean islands as well as in South America. Although it is unknown just when *C. chinense* was introduced into the islands, the introduction of the species was probably the result of human activity, because \_\_\_\_\_.

13. Which of the following most logically completes the argument?
- A. the fruits of the domesticated varieties are too large for birds to swallow
  - B. *C. chinense* grows in the Caribbean islands under climatic conditions very similar to those under which the wild variety grows.
  - C. the peppers are an important part of the Caribbean islands' characteristic cooking.
  - D. most of the plant species in the Caribbean islands originated in South America
  - E. many of the species of birds that are found in the Caribbean islands spend only the winter there

Before 1970, children in the United States were commonly vaccinated against smallpox. In the early 1970s, large-scale vaccinations of children against smallpox were discontinued because smallpox had virtually disappeared from the world. Recently, some scientists have cautioned that the United States could be exposed to smallpox again. Contrary to what many people believe, this exposure would probably find all age-groups within the United States population at comparable levels of risk of contracting smallpox, since \_\_\_\_\_.

14. Which of the following most logically completes the passage?
- A. smallpox is a highly communicable disease among people who are not immune to it
  - B. smallpox vaccine is not now widely available in the United States
  - C. the population of the United States has been growing more slowly since 1970 than it was before then
  - D. smallpox vaccinations lose their efficacy after about 20 years
  - E. people in the United States travel more than they did in 1970, thereby increasing the chances that an epidemic could spread

People who have low bone density have a markedly higher-than-average incidence of stroke, as do people with high blood pressure. There are well-known mechanisms by which high blood pressure can cause a stroke, but since it is highly unlikely that there are any mechanisms by which low bone density can cause a stroke, or vice versa, a possible hypothesis to account for the association between low bone density and stroke is that \_\_\_\_\_.

15. Which of the following most logically completes the argument?
- A. a higher proportion of people with high blood pressure than of people with low bone density have strokes

- B. whatever causes low bone density in people protects them from high blood pressure
- C. there is a condition that can cause both low bone density and strokes
- D. those people with high blood pressure who take steps to lower it in order to prevent a stroke generally take no steps to increase their bone density
- E. there are few initial symptoms of high blood pressure or of low bone density

Spiders of the species *Argiope* build distinctive zig-zag patterns, called stabilimenta, into their webs. Recent research has established that *Argiope* spiders use stabilimenta to collect drinking water. This discovery, far from discrediting the long-standing hypothesis that stabilimenta serve to reinforce the webs, actually supports that hypothesis since \_\_\_\_\_.

16. Which of the following, if true, most logically completes the argument?
- A. the source of the spiders' drinking water is not rainwater but morning dew.
  - B. spiders would not make structures as energy-consuming as the stabilimenta are unless those structures conferred some benefit on the spiders
  - C. the role of stabilimenta in collecting drinking water was discovered independently of attempts to verify the reinforcement hypothesis
  - D. a spider web designed to trap rather than shed water needs to be structurally stronger than one that sheds water
  - E. the threads that make up the stabilimenta are as strong as the threads that make up the rest of the web.

A team of researchers has claimed that by drilling below the Earth's surface, they have been able to recover microorganisms that inhabit depths where it was previously thought that no life existed. Although other microorganisms that were at first thought to have been recovered from these depths were later determined merely to have come from surface soil, that cannot be so in this case, because \_\_\_\_\_.

17. Which of the following most logically completes the argument?
- A. some of the microorganisms found by the researchers are incapable of living near the Earth's surface
  - B. some of the microorganisms found by the researchers are known to inhabit the surface soil near the researchers' drilling site
  - C. when drilling below the Earth's surface, it is impossible to prevent contamination of the drill by surface-soil microorganisms
  - D. it is difficult to keep microorganisms alive once they have been recovered from underneath the Earth's surface
  - E. the drilling equipment used by the team of researchers was similar to drilling equipment used by most previous teams of researchers investigating life below the surface of the Earth

Virtually everyone who speaks Torvic lives in Torvia, a small country that takes pride in its unique culture. Since Torvia trades with many other countries, however, most people who live in Torvia speak several languages, and many languages are taught in Torvia's public schools. Nevertheless, from these facts it should not be inferred that most speakers of Torvic speak several languages, because \_\_\_\_\_.

18. Which of the following most logically completes the argument?
- A. very few languages are as difficult to learn as a second language as Torvic is
  - B. of all the people in the world who speak several languages, only a small minority speak Torvic
  - C. few people who live in Torvia actually speak Torvic
  - D. few people who live in Torvia have ever lived outside Torvia
  - E. some of the languages taught in Torvia's public schools are not spoken in any of the countries with which Torvia trades

### Question Type Eleven: Definition

Some psychologists have proposed the hypothesis that children in different cultures have different psychologies, demonstrated, for example, by culture-specific tendencies for the children's behavior to be relatively self-assertive or obedient. However, that hypothesis is incorrect, since the psychological mechanisms by which children acquire behavioral traits are identical for all cultures.

1. In the argument, the author's position and the position challenged by the author differ in the criteria they use to distinguish different

- A. behaviors
- B. cultures
- C. mechanisms
- D. psychologies
- E. traits

**Question Type Twelve: Generalization**

The damage that trucks do to highways escalates dramatically with the weight borne per axle. New regulations increase the maximum permitted vehicle weight; these regulations will therefore allow onto the highway trucks capable of doing even more damage than those currently permitted.

1. The argument is open to criticism on the grounds that it:

- A. Fails to establish that the level of damage done by trucks is a serious problem
- B. Omits evidence about one of the two relevant factors
- C. Ignores the possibility that careful driving can lessen damage to highways
- D. Presumes that trucks are the only vehicles capable of causing substantial damage to highways
- E. Presumes that something is bound to happen just because it is allowed to happen