2018 GRE佛脚备考系列总序

距上一版的《GRE佛脚备考系列》的推出已有将近半年的时间,从同学们的真实考试反馈来看,《GRE佛脚备考系列》依然具有较强的时效性,每场考试或多或少都会重复一些题目。所以《GRE佛脚备考系列》的重要性毋庸置疑,仍然是今后同学们考前必做的备考资料之一。

《GRE佛脚备考系列》虽是一份为大家免费推出的资料,但是依然饱含我们认真的态度:填空机经Volume 1 与Volume 2 共计105个seciton都为大家查阅了相应生词的中英文解释,总结了同义词意群与短语,为同学们节省了大量的备考时间,"现背现做"使得做题效率大大提高;阅读分册由万炜老师的阅读团队严格精校,保证在答案与语言上的严谨精准;数学分册收集整理了市面上所有的官方与机经题目。在第四版的基础之上,我们进一步的校对,推出了《2018 GRE佛脚备考系列》第五次修订版,改动之处多达数十余处,虽然绝大多数都属于不影响做题的标点格式错误,但是本着对同学们负责的态度,我们决不会放过任何一个细节。

同时,为了让长线备考的同学能够更加扎实的打基础,我们也准备了《填空基础训练54天》汇总了收录目前除PPO以外的全部官方真题,也为临考的同学提供PPO套题专项练习,至此佛脚备考系列共包含:

《GRE佛脚词汇表2017》

《填空基础训练54天》

《填空机经Volume 1》

《填空机经Volume 2》

《阅读分册Volume 1-机经合集》

《阅读分册Volume 2-官方真题》

《阅读分册-PPO专题》

《写作分册Volume 1-issue写作题库分析》

《写作分册Volume 2-argument写作题库分析》

《PPO模考套题》

希望大家在练习这些题目的时候,不要盲目的刷题,要认真分析题目的逻辑,对于一些模棱两可的词汇主动的查《韦氏词典》与《美国传统词典》。在对答案的时候,也切记不要根据答案去倒推逻辑,要思考除了自己的错误选项之外还能选择哪些,这一点虽然耗费一些时间,但是对于推理能力的锻炼至关重要!

目前,市面上对于机经题目的解读可谓百家争鸣,但是真正认真把控题目品质的机构寥寥无几,更有甚者东拼西凑,用一些非ETS题目来滥竽充数,混淆视听。我希望同学们能够理解,任何质量上乘的资料首先都需要物质的基础,如果没有公司强有力的支持,我们将无法凭借一己之力完成任何教学材料。我希望同学们也能够知道,老师们整理每一份资料都需要审慎的考究和激烈的探讨,当你在使用每一份资料时,请珍惜它,它凝结着老师们无数的智慧。在新东方,我们做的每项决定、推荐的每一份材料,都不能草率、冒失,都需要经过我们长期的教学论证其有效性才行。

最后,感谢大家对于佛脚备考系列大力支持,正因有你,我们资料的才会 不断完善,更加贴近同学们的实际备考需要。祝愿大家通过自己的不懈的努力 取得理想成绩!在你的出国留学的路上,我们如果能尽绵薄之力,则甚为欣慰!

GRE佛脚备考系列团队 潘晨光 韩冰 万炜 程黛苑 高宇琪 等合作整理 2017.12.01 BJ-XDF

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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 pretechnical 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

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.

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.

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

- 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

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, ^{Q2}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 ^{Q1}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

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

- 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.

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

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.

- 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

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

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, Greasly 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 11

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

- 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

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.

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. 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.

- 2. 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.

Pueblo Bonito, the most impressive of the "great houses" at the prehistoric Chaco Canyon sitein 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: habituation 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.

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 ultraviolent 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.

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 lowermass 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

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.

- 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.

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

- 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

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.

- 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

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

- 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.

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

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

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. ^{Q2}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 ^{Q1}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

- 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.

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.

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

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.

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 (CO₂) 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 CO₂ started rising about 8000 years ago, even though <u>natural trends</u> 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_2 and methane levels in the atmosphere thousands of years ago

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.

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.

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

- 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

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.

- 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

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

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.

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 *Media* 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 be the plays out of modesty.

E. Written the plays during the latter portion of his lifetime.

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.

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.

- 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.

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

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.

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 is lands 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

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. It can be inferred from the passage that Shaw would be most likely to agree with 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.
- 3. 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.

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

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 dusk 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

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.

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 Huston'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.

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.

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 celebrate 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

- 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.

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.

- 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.

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

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

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.

- 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.

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.

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

- 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

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 threating 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

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.

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.

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

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.

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.

- 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

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 form 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.

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

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.

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

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.

Biologist 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.

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.

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 mutations 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.

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.

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

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

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
- 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?

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.

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.

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.

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

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

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.

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.

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

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.

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.

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.

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 wavs?
- 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

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.

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.

Favorable environments do not necessarily lead to the occurrence of plant cultivation. South China is warmer and moister 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.

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.

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

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 (CO2) 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 CO2, may be pushing tropical forests to release more CO2, 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 CO2 that humans pump into the atmosphere. The La Selva data are consistent with a model of global CO2 flux developed by Keeling, who concluded that the amount of CO2 taken up in tropical landmasses rose in cooler years and fell in hotter ones, accounting for year-to-year changes in the amount of CO2 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 CO2 than they did in cooler years during the period of 1984-2000.
- E. The amount of CO2 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 CO2 and oxygen
- D. increase overall respiration and decrease overall photosynthesis
- E. grow more and absorb more CO2

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.

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.

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

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 home 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 antelopemigration 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.

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 Indian 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.

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 view 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 midtwentieth-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.

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

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 is 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

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

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

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

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

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 annotate 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 twiggathering 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

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 airpollution 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.

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 greenhouses 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.

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 reveals 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.

"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 deliberatively 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

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

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 Room 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.

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.

Massive projectiles striking much larger bodies create various kinds of craters, including "multiring 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.

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 Earths 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 Earths 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

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

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

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

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 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 Burkes 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.

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 historian 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 supporter 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

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.

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.

Passage 117

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.

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.**

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
- E. The first provides evidence against a position; the second is that position.

Passage 119

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. Seligian death certificates indicate only the deceased's last occupation.

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.

Passage 120

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.

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.

Passage 121

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.

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.

Passage 122

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.

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.

Passage 123

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.

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 eve
- 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.

Passage 124

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*.

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.

Passage 125

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.

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.

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.

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.

Passage 127

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.

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.

Passage 128

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.

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 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.

Passage 129

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.

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.

Passage 130

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.

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.

Passage 131

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.

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.

Passage 132

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.

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 Sulaidan 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.

Passage 133

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.

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 money'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.

Passage 134

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.

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 invariable 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.

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.

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.

Passage 136

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.

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.

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.

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.

Passage 138

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.

Which is 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 form 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.

Passage 139

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.

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.

Passage 140

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.

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.

Passage 141

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.

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.

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.

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.

Passage 143

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 Colonian 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 _____.

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

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

Passage 145

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

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

Passage 146

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 .

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

Passage 147

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

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

Passage 148

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 _______.

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.

Passage 149

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.

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

Passage 150

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