

P1 (生命科学)

What causes a helix in nature to appear with either a dextral ("right-handed," or clockwise) twist or a sinistral ("left-handed," or counterclockwise) twist is one of the most intriguing puzzles in the science of form. Most spiral-shaped snail species are predominantly dextral. But at one time, handedness (twist direction of the shell) was equally distributed within some snail species that have become predominantly dextral or, in a few species, predominantly sinistral. What mechanisms control handedness and keep left handedness rare? It would seem unlikely that evolution should discriminate against sinistral snails if sinistral and dextral snails are exact mirror images, for any disadvantage that a sinistral twist in itself could confer on its possessor is almost inconceivable. But left- and righthanded snails are not actually true mirror images of one another. Their shapes are noticeably different. Sinistral rarity might, then, be a consequence of possible disadvantages conferred by these other concomitant structural features. In addition, perhaps left- and right-handed snails cannot mate with each other, having incompatible twist directions. Presumably an individual of the rarer form would have relative difficulty in finding a mate of the same hand, thus keeping the rare form rare or creating geographically separated right- and left-handed populations.

But this evolutionary mechanism combining dissymmetry, anatomy, and chance does not provide an adequate explanation of why right-handedness should have become predominant. It does not explain, for example, why the infrequent unions between snails of opposing hands produce fewer offspring of the rarer than the commoner form in species where each parent contributes equally to handedness.

Nor does it explain why, in a species where one parent determines handedness, a brood is not exclusively right- or left-handed when the offspring would have the same genetic predisposition. In the European pond snail *Lymnaea peregra*, a predominantly dextral species whose handedness is maternally determined, a brood might be expected to be exclusively right- or left-handed and this often occurs. However, some broods possess a few snails of the opposing hand, and in predominantly sinistral broods, the incidence of dextrality is surprisingly high.

Here, the evolutionary theory must defer to a theory based on an explicit developmental mechanism that can favor either right- or left-handedness. In the case of *Lymnaea peregra*, studies indicate that a dextral gene is expressed during egg formation; i.e., before egg fertilization, the gene produces a protein, found in the cytoplasm of the egg, that controls the pattern of cell division and thus handedness. In experiments, an injection of cytoplasm from dextral eggs changes the pattern of sinistral eggs, but an injection from

sinistral eggs does not influence dextral eggs. One explanation for the differing effects is that all *Lymnaea peregra* eggs begin left-handed but most switch to being right-handed. Thus, the path to a solution to the puzzle of handedness in all snails appears to be as twisted as the helix itself.

1. The second paragraph of the passage is primarily concerned with offering possible reasons why

- (A) it is unlikely that evolutionary mechanisms could discriminate against sinistral snails
- (B) sinistrality is relatively uncommon among snail species
- (C) dextral and sinistral populations of a snail species tend to intermingle
- (D) a theory based on a developmental mechanism inadequately accounts for the predominance of dextrality across snail species

(E) dextral snails breed more readily than sinistral snails, even within predominantly sinistral populations

2. In describing the “evolutionary mechanism” (line 18), the author mentions which of the following?

- (A) The favorable conditions for nurturing new offspring
- (B) The variable environmental conditions that affect survival of adult snails
- (C) The availability of potential mates for breeding
- (D) The structural identity of offspring to parents of the same hand

(E) The frequency of unions between snails of different species

3. It can be inferred from the passage that a predominantly sinistral snail species might stay predominantly sinistral for each of the following reasons EXCEPT for

(语法)

- (A) a developmental mechanism that affects the cell-division pattern of snails
- (B) structural features that advantage dextral snails of the species
- (C) a relatively small number of snails of the same hand for dextral snails of the species to mate with

(D) anatomical incompatibility that prevents mating between snails of opposing hands within the species

(E) geographic separation of sinistral and dextral populations

4. Which of the following accurately describes the relationship between the evolutionary and developmental theories discussed in the passage?

(A) Although the two theories reach the same conclusion, each is based on different assumptions.

(B) They present contradictory explanations of the same phenomenon.

(C) The second theory accounts for certain phenomena that the first cannot explain.

(D) The second theory demonstrates why the first is valid only for very unusual, special cases.

(E) They are identical and interchangeable in that the second theory merely restates the first in less technical terms.

P2 (环境问题)

Aided by the recent ability to analyze samples of air trapped in glaciers, scientists now have a clearer idea of the relationship between atmospheric composition and global temperature change over the past 160,000 years. In particular, determination of atmospheric composition during periods of glacial expansion and retreat (cooling and warming) is possible using data from the 2,000-meter Vostok ice core drilled in Antarctica. The technique involved is similar to that used in analyzing cores of marine sediments, where the ratio of the two common isotopes of oxygen, ^{12}O and ^{16}O , accurately reflects past temperature changes. Isotopic analysis of oxygen in the Vostok core suggests mean global temperature fluctuations of up to 10 degrees centigrade over the past 160,000 years.

Data from the Vostok core also indicate that the amount of carbon dioxide has fluctuated with temperature over the same period: the higher the temperature, the higher the concentration of carbon dioxide and the lower the temperature, the lower the concentration. Although change in carbon dioxide content closely follows change in temperature during periods of deglaciation it apparently lags behind temperature during periods of cooling. The correlation of carbon dioxide with temperature, of course, does **123 / 228**

not establish whether changes in atmospheric composition caused the warming and cooling trends or were caused by their.

The correlation between carbon dioxide and temperature throughout the Vostok record is consistent and predictable. The absolute temperature changes, however, are from 5 to 14 times greater than would be expected on the basis of carbon dioxide's own ability to absorb infrared radiation, or radiant heat. This reaction suggests that, quite aside from changes in heat-trapping gases, commonly known as greenhouse gases, certain positive feedbacks are also amplifying the temperature change. Such feedbacks might involve ice on land and sea, clouds, or water vapor, which also absorb radiant heat. Other data from the Vostok core show that methane gas also correlates closely with temperature and carbon dioxide. The methane concentration nearly doubled, for example, between the peak of the penultimate glacial period and the following interglacial period. Within the present interglacial period it has more than doubled in 4 just the past 300 years and is rising rapidly. Although the concentration of atmospheric methane is more than two orders of magnitude lower than that of carbon dioxide, it cannot be ignored: the radiative properties of methane make it 20 times more effective, molecule for molecule, than carbon dioxide in absorbing radiant heat. On the basis of a simulation model that climatological researchers have developed, methane appears to have been about 25 percent as important as carbon dioxide in the warming that took place during the most recent glacial retreat 8,000 to 10,000 years ago.

1. The primary purpose of the passage is to

- (A) interpret data
- (B) explain research methodology
- (C) evaluate a conclusion
- (D) suggest a new technique
- (E) attack a theory

2. According to the passage, which of the following statements about methane is true?

- (A) Methane is found in marine sediments.
- (B) Methane is more effective than carbon dioxide in absorbing radiant heat.
- (C) The Earth's atmosphere now contains more than twice as much methane as it does carbon dioxide.

(D) The higher the concentration of carbon dioxide in the Earth's atmosphere; the lower the concentration of methane.

(E) Most of the global warming that has occurred during the past 10 years has been associated with increased methane concentration.

3. According to the passage, which of the following statements best describes the relationship between carbon dioxide and global temperature?

(A) Carbon dioxide levels change immediately in response to changes in temperature.

(B) Carbon dioxide levels correlate with global temperature during cooling periods only.

(C) Once carbon dioxide levels increase, they remain high regardless of changes in global temperature.

(D) Carbon dioxide levels increase more quickly than global temperature does.

(E) During cooling periods, carbon dioxide levels initially remain high and then decline.

4. The passage suggests that when the methane concentration in the Earth's atmosphere decreases, which of the following also happens?

(A) Glaciers melt faster.

(B) The concentration of carbon dioxide increases.

(C) The mean global temperature decreases.

(D) Carbon dioxide absorbs more radiant heat.

(E) More clouds form in the Earth's atmosphere.

5. In the fourth paragraph, the author is primarily concerned with

(A) restating the main idea of the passage

(B) using research findings to develop a simulation model

(C) outlining the direction of future research

(D) providing an additional example of a phenomenon

(E) introducing a conflicting hypothesis

P3 (社会发展历史)

Historians have only recently begun to note the increase in demand for luxury goods and services that took place in eighteenth-century England. McKendrick has explored the Wedgwood firm's remarkable success in marketing luxury pottery; Plumb has written about the proliferation of provincial theaters, musical festivals, and children's toys and books. While the fact of this consumer revolution is hardly in doubt, three key questions remain: Who were the consumers? What were their motives? And what were the effects of the new demand for luxuries?

An answer to the first of these has been difficult to obtain. Although it has been possible to infer from the goods and services actually produced what manufacturers and servicing trades thought their customers wanted, only a study of relevant personal documents written by actual consumers will provide a precise picture of who wanted what. We still need to know how large this consumer market was and how far down the social scale the consumer demand for luxury goods penetrated. With regard to this last question, we might note in passing that Thompson, while rightly restoring laboring people to the stage of eighteenth-century English history, has probably exaggerated the opposition of these people to the inroads of capitalist consumerism in general; for example, laboring people in eighteenth-century England readily shifted from home-brewed beer to standardized beer produced by huge, heavily capitalized urban breweries.

To answer the question of why consumers became so eager to buy, some historians have pointed to the ability of manufacturers to advertise in a relatively uncensored press. This, however, hardly seems a sufficient answer. McKendrick favors a Veblen model of conspicuous consumption stimulated by competition for status. The "middling sort" bought goods and services because they wanted to follow fashions set by the rich. Again, we may wonder whether this explanation is sufficient. Do not people enjoy buying things as a form of self-gratification? If so, consumerism could be seen as a product of the rise of new concepts of individualism and materialism, but not necessarily of the frenzy for conspicuous competition.

Finally, what were the consequences of this consumer demand for luxuries? McKendrick claims that it goes a long way toward explaining the coming of the Industrial Revolution. But does it? What, for example, does the production of high-quality pottery and toys have to do with the development of iron manufacture or textile mills? It is perfectly possible to have the psychology and reality of a consumer society without a heavy industrial sector.

That future exploration of these key questions is undoubtedly necessary should not, however, diminish the force of the conclusion of recent studies: the insatiable demand in eighteenth-century England for frivolous as well as useful goods and services fore-shadows our own world.

1. Which of the following items, if preserved from eighteenth-century England, would provide an example of the kind of documents mentioned in lines 10?

- (A) A written agreement between a supplier of raw materials and a supplier of luxury goods
- (B) A diary that mentions luxury goods and services purchased by its author.
- (C) A theater ticket stamped with the date and name of a particular play
- (D) A payroll record from a company that produced luxury goods such as pottery.
- (E) A newspaper advertisement describing luxury goods and services available at a seaside resort.

2. According to the passage, Thompson attributes to laboring people in eighteenth century England which of the following attitudes toward capitalist consumerism?

- (A) Enthusiasm
- (B) Curiosity
- (C) Ambivalence

(D) Stubbornness

(E) Hostility

3. In the third paragraph, the author is primarily concerned with

- (A) contrasting two theses and offering a compromise
- (B) questioning two explanations and proposing a possible alternative to them.
- (C) paraphrasing the work of two historians and questioning their assumptions
- (D) examining two theories and endorsing one over the other

(E) raising several questions but implying that they cannot be answered.

4. According to the passage, a Veblen model of conspicuous consumption has been used to

- (A) investigate the extent of the demand for luxury goods among social classes in eighteenth-century England
- (B) classify the kinds of luxury goods desired by eighteenth-century consumers
- (C) explain the motivation of eighteenth-century consumers to buy luxury goods

(D) establish the extent to which the tastes of rich consumers were shaped by the middle classes in eighteenth-century England

(E) compare luxury consumerism in eighteenth-century England with such consumerism in the twentieth century

5. It can be inferred from the passage that the author would most probably agree with which of the following statements about the relationship between the Industrial Revolution and the demand for luxury goods and services in eighteenth-century England?

- (A) The growing demand for luxury goods and services was a major factor in the coming of the Industrial Revolution.
- (B) The Industrial Revolution exploited the already existing demand for luxury goods and services.
- (C) Although the demand for luxury goods may have helped bring about the Industrial Revolution, the demand for luxury services did not.

(D) There is no reason to believe that the Industrial Revolution was directly driven by a growing demand for luxury goods and services.

(E) The increasing demand for luxury goods and services was a cultural phenomenon that has been conclusively demonstrated to have been separate from the coming of the Industrial Revolution.

P4(生命科学)

Researchers are finding that in many ways an individual bacterium is more analogous to a component cell of a multicellular organism than it is to a free-living, autonomous organism. Anabaena, a freshwater bacteria is a case in point. Among photosynthetic bacteria, Anabaena is unusual: it is capable of both photosynthesis and nitrogen fixation. Within a single cell, these two biochemical processes are incompatible: oxygen produced during photosynthesis, inactivates the nitrogenase required for nitrogen fixation. In Anabaena communities, however, these processes can coexist.

When fixed nitrogen compounds are abundant, Anabaena is strictly photosynthetic and its cells are all alike. When nitrogen levels are low, however, specialized cells called heterocysts are produced which lack chlorophyll (necessary for photosynthesis) but which can fix nitrogen by converting nitrogen gas into a usable form.

Submicroscopic channels develop which connect the heterocyst cells with the photosynthetic ones and which are used for transferring cellular products between the two kinds of Anabaena cells.

1. According to the passage, which of the following statements is true of bacteria that engage in photosynthesis?

- (A) They eventually become two autonomous cells.
- (B) They cannot normally also engage in nitrogen fixation.
- (C) Oxygen normally inactivates them.
- (D) Cellular products are constantly transferred between such bacteria.
- (E) They normally lack chlorophyll.

2. It can be inferred from the passage that cell differentiation within Anabaena is regulated by the

- (A) amount of oxygen *Anabaena* cells produce
- (B) season of the year
- (C) amount of fixed nitrogen compounds available
- (D) number of microscopic channels uniting *Anabaena* cells

(E) amount of chlorophyll in *Anabaena* cells

3. The passage supports which of the following inferences about heterocysts?

- (A) Heterocysts do not produce oxygen.
- (B) Nitrogen gas inactivates heterocysts.
- (C) Chlorophyll increases the productivity of heterocysts.
- (D) Heterocysts allow nitrogen fixation and photosynthesis to occur in the same cell.
- (E) Heterocysts are more important for *Anabaena*'s functioning than are photosynthetic cells.

4. The author uses the example of *Anabaena* to illustrate the

- (A) uniqueness of bacteria among unicellular organisms
- (B) inadequacy of an existing view of bacteria
- (C) ability of unicellular organisms to engage in photosynthesis
- (D) variability of a freshwater bacteria

(E) difficulty of investigating even the simplest unicellular organisms

P5(环保问题)

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 photo-chemically 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. The author of the passage is primarily concerned with
- (A) countering a flawed argument that dismisses a possible solution to a problem
 - (B) reconciling contradictory points of view about the nature of a problem
 - (C) identifying the strengths of possible solutions to a problem
 - (D) discussing a problem and arguing in favor of one solution to it
 - (E) outlining a plan of action to solve a problem and discussing the obstacles blocking that plan

2. 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

3. The passage suggests which of the following about air pollution?

- (A) Further attempts to reduce emissions from gasoline-fueled vehicles will not help lower urban air-pollution levels.
- (B) Attempts to reduce the pollutants that an individual gasoline-fueled vehicle emits have been largely unsuccessful.
- (C) Few serious attempts have been made to reduce the amount of pollutants emitted by gasoline-fueled vehicles.
- (D) Pollutants emitted by gasoline-fueled vehicles are not the most critical source of urban air pollution.
- (E) Reductions in pollutants emitted by individual vehicles have been offset by increases in pollution from sources other than gasoline-fueled vehicles.

4. 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.

5. The author describes which of the following as the most appealing feature of methanol?

- (A) It is substantially less expensive than ethanol.
- (B) It could be provided to consumers through the existing motor fuel distribution system.
- (C) It has a higher energy content than other alternative fuels.
- (D) Its use would make design improvements in individual vehicles feasible.
- (E) Its use would substantially reduce ozone levels.

6. 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

7. It can be inferred that the author of the passage most likely regards the criticism of methanol in the last paragraph as

- (A) flawed because of the assumptions on which it is based
- (B) inapplicable because of an inconsistency in the critics' arguments
- (C) misguided because of its exclusively technological focus
- (D) inaccurate because it ignores consumers' concerns

(E) invalid because it reflects the personal bias of the critics

P6 (社会制度评论)

One of the principal themes of Walzer's critique of liberal capitalism is that it is insufficiently egalitarian. Walzer's case against the economic inequality generated by capitalism and in favor of "a radical redistribution of wealth" is presented in a widely cited essay entitled "In Defense of Equality."

The most striking feature of Walzer's critique is that, far from rejecting the principle of reward according to merit, Walzer insists on its validity. People who excel should receive the superior benefits appropriate to their excellence. But people exhibit a great variety of qualities—"intelligence, physical strength, agility and grace, artistic creativity, mechanical skill, leadership, endurance, memory, psychological insight, the capacity for hard work—even moral strength, sensitivity, the ability to express compassion." Each deserves its proper recompense, and hence a proper distribution of material goods should reflect human differences as measured on all these different scales. Yet, under capitalism, the ability to make money ("the green thumb of bourgeois society") enables its possessor to acquire almost "every other sort of social good," such as the respect and esteem of others.

The centerpiece of Walzer's argument is the invocation of a quotation from Pascal's

Pensees, which concludes: "Tyranny is the wish to obtain by one means what can only be had by another." Pascal believes that we owe different duties to different qualities. So we might say that infatuation is the proper response to charm, and awe the proper response to strength. In this light, Walzer characterizes capitalism as the tyranny of money (or of the ability to make it) And Walzer advocates as the means of eliminating this tyranny and of restoring genuine equality "the abolition of the power of money outside its sphere" What Walzer envisions is a society in which wealth is no longer convertible into social goods with which it has no intrinsic connection.

Walzer's argument is a puzzling one. After all, why should those qualities unrelated to the production of material goods be rewarded with material goods? Is it not tyrannical, in Pascal's sense, to insist that those who excel in "sensitivity" or "the ability to express compassion" merit equal wealth with those who excel in qualities (such as "the capacity for hard work") essential in producing wealth?

Yet Walzer's argument, however deficient, does point to one of the most serious weaknesses of capitalism—namely, that it brings to predominant positions in a society people who, no matter how legitimately they have earned their material rewards, often lack those other qualities that evoke affection or admiration. Some even argue plausibly that this weakness may be irremediable: in any society that, like a capitalist society, seeks to become ever wealthier in material terms

disproportionate rewards are bound to flow to the people who are instrumental in producing the increase in its wealth.

1. The primary purpose of the passage is to

- (A) argue that Walzer's critique of liberal capitalism is the cornerstone of Walzer's thinking
- (B) identify and to deprecate the origins of the intellectual tradition championed by Walzer
- (C) present more clearly than does the essay "In Defense of Equality" the distinctive features of Walzer's politico-economic theories
- (D) demonstrate that Walzer's critique of liberal capitalism is neither original nor persuasive

(E) outline and to examine critically Walzer's position on economic equality

2. The author mentions all of the following as issues addressed by Walzer EXCEPT

- (A) proper recompense for individual excellence
- (B) proper interpretation of "economic equality"
- (C) proper level of a society's wealth
- (D) grounds for calling capitalism "the tyranny of money"

(E) exchangeability of money for social goods

3. The author implies that Walzer's interpretation of the principle of reward according to merit is distinctive for its

- (A) insistence on maximizing everyone's rewards
- (B) emphasis on equality
- (C) proven validity
- (D) broad conception of what constitutes merit

(E) broad conception of what constitutes a reward

4. The author's interpretation of the principle that "we owe different duties to different qualities" (lines 18) suggests that which of the following would most probably be the duty paired with the quality of veracity?

- (A) Dignity
- (B) Trust
- (C) Affection
- (D) Obedience

(E) Integrity

5. The author implies that sensitivity is not a quality that

- (A) is essential in producing wealth
- (B) wealthy people lack
- (C) can be sensibly measured on a scale
- (D) characterizes tyrannical people

(E) is owed a duty in Pascal's sense

P7 (社会科学类)

National character is not formally considered by social scientists in discussing economic and social development today. They believe that people differ and that these differences should be taken into account somehow, but they have as yet discovered no way to include such variables in their formal models of economic and social development. The difficulty lies in the nature of the data that supposedly define different national characters. Anthropologists and others are on much firmer ground when they attempt to describe the cultural norms for a small homogeneous tribe or village than when they undertake the formidable task of discovering the norms that exist in a complex modern nation-state composed of many disparate groups. The situation is further complicated by the nature of judgments about character; since such judgments are overly dependent on impressions and since, furthermore, impressions are usually stated in qualitative terms, it is impossible to make a reliable comparison between the national characters of two countries.

1. The author's main point in the passage is that national character

- (A) is too elusive to merit attention by anthropologists and other social scientists.

- (B) is of greater interest to social scientists today than it has been in the past.
- (C) is still too difficult to describe with the precision required by many social scientists.
- (D) has become increasingly irrelevant because of the complexity of modern life.

(E) can be described more accurately by anthropologists than by other social scientists.

2. Given the information in the passage, which of the following is NOT true of modern nation-states?

- (A) They are complex.
- (B) They are heterogeneous.
- (C) They are of interest to social scientists.
- (D) They lack cultural norms.

(E) They differ from one another in terms of national character.

3. It can be inferred from the passage that the social scientists mentioned in lines 1-4 would agree with which of the following statements?

- A. It is extremely difficult to create models that account for both economic and social development
- B. Models of economic and social development would be improved by the inclusion of adequate descriptions of national character.
- C. It is important to supplement formal models of economic and social development with qualitative impressions of national character.

4. Which of the following best describes the organization of the passage?

- (A) A problem is presented and reasons for its existence are supplied.
- (B) A controversial view is presented and evidence for its validity is supplied.
- (C) A hypothesis is presented and possible means of verifying it are suggested.
- (D) A recent development is described and then analyzed.
- (E) A dispute is summarized and one side defended.

P8 (生命科学)

The complications frequently accompanying diabetes, such as impairment of vision and of kidney function, are now thought to result from the lack of continuous control of blood glucose concentrations. The healthy pancreas, in response to increases in blood glucose concentration, releases small quantities of insulin throughout the day and thereby maintains the concentration within physiological limits (normoglycemia). But the diabetic generally receives only one large dose daily. The diabetic's blood glucose concentration can thus fluctuate greatly during the interval between doses, and it has been suggested that the complications result from the periods of high concentrations of blood glucose (hyperglycemia). Many investigators thus believe that restoration of normoglycemia might halt the progression of such complications and perhaps even reverse them.

There are three primary techniques that have been investigated for restoration of normoglycemia. They are: transplantation of whole, healthy pancreases; transplantation of islets of Langerhans, that portion of the pancreas that actually secretes insulin; and implantation of artificial pancreases. There has, in fact, been a great deal of success in the development of these techniques and each seems, on the whole, promising. Nonetheless, it will undoubtedly be many years before any one of them is accepted as a treatment for diabetes.

To many people, the obvious approach would seem to be simply to transplant pancreases from cadavers in the same manner that kidneys and other organs are routinely transplanted. That was the rationale in 1966 when the first recorded pancreas transplant was performed. Between 1966 and 1975, there were forty-six pancreas transplants in forty-five other patients in the United States and five other countries. But only one of these patients is still alive with a functioning graft, and surgeons have found that the procedure is not as simple as they once thought.

The surviving patient has required no insulin since the operation. Another patient survived 638 days without requiring insulin. And one patient survived a transplantation for more than a year, but died when he chose not to take the immunosuppressive drugs. These results, though meager, suggest that the procedure has the potential for success. The rest of the patients, however, either rejected the transplant or died within a short period. There does not appear to be any technical problem with the procedure. Rather, most of the patients were already so severely debilitated by the complications of diabetes that they could not withstand the surgery and the immunosuppressive regimen required to prevent rejection. More than half of the patients, furthermore, also required a kidney

transplant. Most investigators now agree that the simultaneous transplantation of both organs is too great a shock to the patient and greatly increases the total risk.

1. which of the following best states one of the main conclusions of the passage?

- (A) Although the techniques for pancreas transplants appear to be theoretically correct, there are problems that must be solved before the operation can be used as a treatment for diabetes.
- (B) Although the techniques for pancreas transplants are still being developed, the experimental results show that the operation will be a successful treatment for diabetes in the near future.
- (C) Although pancreas transplants are reliable, many diabetics are reluctant to undergo the operation because of the side effects of immunosuppressive drugs.
- (D) Although pancreas transplants alone are not generally successful, the operation can be used in conjunction with other procedures to treat diabetes.
- (E) Although pancreas transplants have not been successful in treating diabetes, research indicates that other procedures may soon be developed.

2. According to the passage, widely spaced doses of insulin can cause.

- (A) reversal of normal kidney function
- (B) delay in the onset of diabetes
- (C) radical changes in the concentration of blood glucose
- (D) restoration of normoglycemia

(E) marked variations in the islets of Langerhans

3. According to the passage, a periodic high concentration of blood glucose in diabetics is a possible cause of

- (A) deterioration of the pancreas
- (B) damage to the eyes and kidneys
- (C) rejection of transplanted organs

(D) inadequate secretion of insulin

(E) increased production of blood cells

4. It can be inferred from the passage that one of the important contributing causes of the failure of most pancreas transplants has been the

(A) reluctance of patients to cooperate with physicians

(B) imperfect techniques used in the operations

(C) scarcity of immunosuppressive drugs

(D) unavailability of healthy pancreases

(E) weakened condition of the patients

5. The author provides information that would answer which of the following questions?

A. What is hyperglycemia?

B. What is one cause of hyperglycemia?

C. What are some of the organs that can be adversely affected by hyperglycemia?

6. On the basis of the information in the passage, which of the following can be inferred about the islets of Langerhans?

A. They are important for the normal control of blood glucose concentration.

B. They can be transplanted independently of other pancreatic cells.

C. They regulate immunosuppressive reactions.

P9 (生命科学)

The success of fluoride in combating dental decay is well established and, without a doubt, socially beneficial. However, fluoride's toxic properties have been known for a century. In humans excessive intake (for adults, over 4 milligrams per day) over many years can lead to skeletal fluorosis, a well-defined skeletal disorder, and in some plant species, fluoride is more toxic than ozone, sulfur dioxide, or pesticides.

Some important questions remain. For example, the precise lower limit at which the fluoride content of bone becomes toxic is still undetermined. And while fluoride intake from water and air can be evaluated relatively easily, it is much harder to estimate how

much a given population ingests from foodstuffs because of the wide variations in individual eating habits and in fluoride concentrations in foodstuffs. These difficulties suggest that we should be wary of indiscriminately using fluoride, even in the form of fluoride-containing dental products.

1. In the passage, the author is primarily concerned with

- (A) analyzing and categorizing
- (B) comparing and contrasting
- (C) synthesizing and predicting
- (D) describing and cautioning

(E) summarizing and reinterpreting

2. The passage suggests that it would be easier to calculate fluoride intake from food if

- (A) adequate diets were available for most people.
- (B) individual eating habits were more uniform
- (C) the fluoride content of food was more varied
- (D) more people were aware of the fluoride content of food

(E) methods for measuring the fluoride content of food were more generally agreed on

3. One function of the second paragraph of the passage is to

- (A) raise doubts about fluoride's toxicity
- (B) introduce the issue of fluoride's toxicity
- (C) differentiate a toxic from a nontoxic amount of fluoride
- (D) indicate that necessary knowledge of fluoride remains incomplete
- (E) discuss the foodstuffs that are most likely to contain significant concentrations of fluoride

4. The passage suggests which of the following about the effect of fluoride on humans?

- (A) The effect is more easily measured than is the effect of exposure to pesticides.
- (B) The effect of fluoride intake from water and air is relatively difficult to monitor.

(C) In general the effect is not likely to be as harmful as the effect of exposure to sulfur dioxide.
(D) An intake of 4 milligrams over a long period of time usually leads to a skeletal disorder in humans.

(E) An intake of slightly more than 4 milligrams for only a few months is not likely to be life-threatening.

P10 (历史问题)

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. According to the passage, a useful description of participants"(lines 7) exists for which of the following insurrections of nineteenth-century France?

- A. The July insurrection of 1830
- B. The February Revolution of 1848
- C. The June insurrection of 1848

2. It can be inferred from the passage that support for the objectives of the February Revolution was

- (A) negligible
- (B) misguided
- (C) fanatical
- (D) spontaneous

(E)widespread

3. which of the following, best describes the organization of the second paragraph?

- (A) The thesis of the passage is stated and supporting evidence systematically presented.
- (B) Two views regarding the thesis presented in the first paragraph are compared and contrasted
- (C) Evidence refuting the thesis presented in the first paragraph is systematically presented.
- (D) The thesis presented in the first paragraph is systematically supported.

(E) The thesis presented in the first paragraph is further defined and a conclusion drawn.

4. Which of the following is the most logical objection to the claim made (in boldface) ?

(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.

P11(生命科学)

One advantage of breeding African bees with other bee types (Africanization) may be resistance to the parasitic mite *Varroa jacobsoni*, a major threat to modern beekeeping. In parts of Europe, this mite is devastating honeybees and killing many colonies despite preventive measures by beekeepers. But in Brazil *Varroa jacobsoni* has been present in Africanized bees since 1972 without the loss of a single colony, even though beekeepers there undertook no preventive measures. The mites lay eggs within the brood cells of immature bees, and developing mites feed on the hemolymph (blood) of bee pupae. But fewer mites reproduce in Africanized bees than in European bees. Some researchers point out that this resistance may be related to the Africanized worker bee's shorter development period, which prevents some mites from reaching maturity. Recently the mite has become a serious problem in colonies of European bees in North America.

Africanization of these bees may be the best safeguard against this parasite.

1. The passage suggests that which of the following was true of the honeybee colonies described in line 3-4?

- (A) Their life expectancy, when free of disease, was shorter than that of European bee colonies in North America.
- (B) They were not Africanized.
- (C) Their life cycle did not accommodate the feeding habits of *Varroa jacobsoni*.
- (D) They responded well to measures to control *Varroa jacobsoni*.

(E) They were managed using methods that were more modern than those employed in Brazil.

2. The author cites all of the following as evidence that Africanized bees' resistance to *Varroa jacobsoni* is superior to that of European bees EXCEPT:

- (A) Fewer *Varroa jacobsoni* mites reproduce in Africanized bees.
- (B) *Varroa jacobsoni* is killing many bee colonies in Europe.
- (C) Beekeepers in Brazil have not used preventive measures to protect their colonies.
- (D) Brazilian bee colonies have endured *Varroa jacobsoni* since 1972.

(E) At least some European bee colonies have been saved by preventive measures.

3. According to the passage, research suggests that one possible reason the Africanized bees in Brazil have successfully resisted *Varroa jacobsoni* is that

- (A) the life cycle of the Africanized bee may limit the *Varroa jacobsoni* mite's opportunity to reach full development
- (B) the Africanized bees may have had an opportunity to develop a chemical resistance to *Varroa jacobsoni*
- (C) the location of bee colonies in Brazil may provide a natural deterrent to *Varroa jacobsoni*
- (D) *Varroa jacobsoni* may be relatively new to Brazil and may not have had time to become widespread

(E) beekeepers may have developed effective control techniques for *Varroa jacobsoni*

4. The author's argument regarding the resistance of Africanized bees to *Varroa jacobsoni* would be most weakened if which of the following were true?

- (A) The bees in Brazil were resistant before being Africanized.
- (B) The number of bee colonies in North America increased dramatically whereas the number in Brazil remained unchanged.
- (C) Mites found in European bees reproduce at a faster rate than mites of identical species found in the bees in Brazil.
- (D) Africanized bees retain many of the characteristics of European bees.

(E) Bee colonies in Europe continue to produce greater quantities of honey than do those in Brazil.

P12 (生命科学)

The outpouring of contemporary American Indian literature in the last two decades, often called the Native American Renaissance, represents for many the first opportunity to experience Native American poetry. The appreciation of traditional oral

American Indian literature has been limited, hampered by poor translations and by the difficulty, even in the rare culturally sensitive and aesthetically satisfying translation, of completely conveying the original's verse structure, tone, and syntax.

By writing in English and experimenting with European literary forms, contemporary American Indian writers have broadened their potential audience, while clearly retaining many essential characteristics of their ancestral oral traditions. For example, Pulitzer-prize-winning author N. Scott Momaday's poetry often treats art and mortality in a manner that recalls British romantic poetry, while his poetic response to the power of natural forces recalls Cherokee oral literature. In the same way, his novels, an art form European in origin, display an eloquence that echoes the oratorical grandeur of the great nineteenth-century American Indian chiefs.

1. According to the passage, Momaday's poetry shares which of the following with British romantic poetry?

- (A) Verse structure
- (B) Oratorical techniques
- (C) Manner of treating certain themes

(D) Use of certain syntactical constructions

(E) Patterns of rhythm and rhyme

2. Which of the following is most likely one of the reasons that the author mentions the work of N. Scott Momaday?

(A) To illustrate how the author believes that members of the Native American Renaissance have broadened their potential audience

(B) To emphasize the similarities between Momaday's writings and their European literary models

(C) To demonstrate the contemporary appeal of traditional Native American oral literature

(D) To suggest that contemporary American Indian writers have sacrificed traditional values for popular literary success

(E) To imply the continuing popularity of translations of oral American Indian literature

3. Which of the following can be inferred from the passage about written translations of oral Native American poetry?

(A) They were less widely read than are the works of contemporary Native American poets writing in English.

(B) They were often made by writers who were intimately familiar with both English and Native American languages.

(C) They often gave their readers aesthetic satisfaction, despite their inaccuracies.

(D) They usually lacked complex verse structure.

(E) They were overly dependent on European literary models.

4. The passage suggests which of the following about American Indian poets before the Native American Renaissance?

(A) Art and mortality were rarely the subjects of their poetry.

- (B) Their oratorical grandeur reached its peak in the nineteenth century.
- (C) They occasionally translated their own poetry.
- (D) They seldom wrote poetry in English.

(E) They emphasized structure, tone, and syntax rather than literary form.

P13 (法律题材)

The Fourteenth Amendment to the United States Constitution, ratified in 1868, prohibits state governments from denying citizens the "equal protection of the laws." Although precisely what the framers of the amendment meant by this equal protection clause remains unclear, all interpreters agree that the framers' immediate objective was to provide a constitutional warrant for the Civil Rights Act of 1866, which guaranteed the citizenship of all persons born in the United States and subject to United States jurisdiction. This declaration, which was echoed in the text of the Fourteenth Amendment, was designed primarily to counter the Supreme Court's ruling in *Dred Scott v.*

Sandford that Black people in the United States could be denied citizenship. The act was vetoed by President Andrew Johnson, who argued that the Thirteenth Amendment, which abolished slavery, did not provide Congress with the authority to extend citizenship and equal protection to the freed slaves. Although Congress promptly overrode Johnson's veto, supporters of the act sought to ensure its constitutional foundations with the passage of the Fourteenth Amendment. The broad language of the amendment strongly suggests that its framers were proposing to write into the Constitution not a laundry list of specific civil rights but a principle of equal citizenship that forbids organized society from treating any individual as a member of an inferior class. Yet for the first eight decades of the amendment's existence, the Supreme Court's interpretation of the amendment betrayed this ideal of equality. In the *Civil Rights Cases* of 1883, for example, the Court invented the "state action" limitation, which asserts that "private" decisions by owners of public accommodations and other commercial businesses to segregate their facilities are insulated from the reach of the Fourteenth Amendment's guarantee of equal protection under the law.

After the Second World War, a judicial climate more hospitable to equal protection claims culminated in the Supreme Court's ruling in *Brown v. Board of Education* that racially segregated schools violated the equal protection clause of the Fourteenth Amendment. Two doctrines embraced by the Supreme Court during this period extended the amendment's reach. First, the Court required especially strict scrutiny of legislation that employed a "suspect classification," meaning discrimination against a group on grounds that could be construed as racial. This doctrine has broadened the application of the Fourteenth Amendment to other, nonracial forms of discrimination, for while some justices have refused to find any legislative classification other than race to be

constitutionally disfavored, most have been receptive to arguments that at least some nonracial discriminations, sexual discrimination in particular, are "suspect" and deserve this heightened scrutiny by the courts. Second, the Court relaxed the state action limitation on the Fourteenth Amendment, bringing new forms of private conduct within the amendment's reach.

1. Which of the following best describes the main idea of the passage?

(A) By presenting list of specific rights, framers of the Fourteenth Amendment were attempting to provide constitutional basis for broad judicial protection of the principle of equal citizenship.

(B) Only after the Supreme Court adopted the suspect classification approach to reviewing potentially discriminatory legislation was the applicability of the Fourteenth Amendment extended to include sexual discrimination.

(C) Not until after the Second World War did the Supreme Court begin to interpret the Fourteenth Amendment in manner consistent with the principle of equal citizenship that it expresses.

(D) Interpreters of the Fourteenth Amendment have yet to reach consensus with regard to what its framers meant by the equal protection clause.

(E) Although the reluctance of judges to extend the reach of the Fourteenth Amendment to nonracial discrimination has betrayed the principle of equal citizenship, the Supreme Court's use of the state action limitation to insulate private activity from the amendment's reach has been more harmful.

2. The passage suggests that the principal effect of the state action limitation was to

(A) allow some discriminatory practices to continue unimpeded by the Fourteenth Amendment

(B) influence the Supreme Court's ruling in *Brown v. Board of Education*

(C) provide expanded guidelines describing prohibited actions

(D) prohibit states from enacting laws that violated the intent of the Civil Rights Act of 1866

(E) shift to state governments the responsibility for enforcement of laws prohibiting discriminatory practices

3. The author's position regarding the intent of the framers of the Fourteenth Amendment would be most seriously undermined if which of the following were true?

- (A) The framers had anticipated state action limitations as they are described in the passage.
- (B) The framers had merely sought to prevent discriminatory acts by federal officials.
- (C) The framers were concerned that the Civil Rights Act of 1866 would be overturned by the Supreme Court.
- (D) The framers were aware that the phrase "equal protection of the laws" had broad implications.

(E) The framers believed that racial as well as nonracial forms of discrimination were unacceptable.

4. According to the passage, the original proponents of the Fourteenth Amendment were primarily concerned with

- (A) detailing the rights afforded by the principle of equal citizenship
- (B) providing support in the Constitution for equal protection for all citizens of the United States
- (C) closing loophole that could be used to deny individuals the right to sue for enforcement of their civil rights
- (D) asserting that the civil rights protected by the Constitution included nonracial discrimination as well as racial discrimination
- (E) granting state governments broader discretion in interpreting the Civil Rights Act of 1866

5. The author implies that the Fourteenth Amendment might not have been enacted if

- (A) Congress' authority with regard to legislating civil rights had not been challenged

(B) the framers had anticipated the Supreme Court's ruling in *Brown v. Board of Education*

(C) the framers had believed that it would be used in deciding cases of discrimination involving non-racial groups

(D) most state governments had been willing to protect citizens' civil rights

(E) its essential elements had not been implicit in the Thirteenth Amendment

6. According to the passage, which of the following most accurately indicates the sequence of the events listed below?

I. Civil Rights Act of 1866

II. *Dred Scott v. Sandford*

III. Fourteenth Amendment

IV. Veto by President Johnson

(A) I, II, III, IV

(B) I, IV, II, III

(C) I, IV, III, II

(D) II, I, IV, III

(E) III, II, I, IV

7. Which of the following can be inferred about the second of the two doctrines referred to in lines 23 of the passage?

(A) It caused some justices to rule that all types of discrimination are prohibited by the Constitution.

(B) It shifted the focus of the Supreme Court from racial to nonracial discrimination.

(C) It narrowed the concern of the Supreme Court to legislation that employed suspect classification.

(D) It caused legislators who were writing new legislation to reject language that could be construed as permitting racial discrimination.

(E) It made it more difficult for commercial businesses to practice racial discrimination.

P14 (气象学)

The recent, apparently successful prediction by mathematical models of an appearance of El Nino—the warm ocean current that periodically develops along the Pacific coast of South America—has excited researchers. Jacob Bjerknes pointed out over 20 years ago how winds might create either abnormally warm or abnormally cold water in the eastern equatorial Pacific. Nonetheless, until the development of the models no one could explain why conditions should regularly shift from one to the other, as happens in the periodic oscillations between appearances of the warm El Nino and the cold so-called anti-El Nino. The answer, at least if the current model that links the behavior of the ocean to that of the atmosphere is correct, is to be found in the ocean.

It has long been known that during an El Nino, two conditions exist: (1) unusually warm water extends along the eastern Pacific, principally along the coasts of Ecuador and Peru, and (2) winds blow from the west into the warmer air rising over the warm water in the east. These winds tend to create a feedback mechanism by driving the warmer surface water into a “pile” that blocks the normal upwelling of deeper, cold water in the east and further warms the eastern water, thus strengthening the wind still more. The contribution of the model is to show that the winds of an El Nino, which raise sea level in the east, simultaneously send a signal to the west lowering sea level. According to the model, that signal is generated as a negative Rossby wave, a wave of depressed, or negative, sea level, that moves westward parallel to the equator at 25 to 85 kilometers per day.

Taking months to traverse the Pacific, Rossby waves march to the western boundary of the Pacific basin, which is modeled as a smooth wall but in reality consists of quite irregular island chains, such as, the Philippines and Indonesia. When the waves meet the western boundary, they are reflected, and the model predicts that Rossby waves will be broken into numerous coastal Kelvin waves carrying the same negative sea-level signal. These eventually shoot toward the equator, and then head eastward along the equator propelled by the rotation of the Earth at a speed of about 250 kilometers per day. When enough Kelvin waves of sufficient amplitude arrive from the western Pacific, their negative sea-level signal overcomes the feedback mechanism tending to raise the sea level, and they begin to drive the system into the opposite cold mode. This produces a gradual shift in winds, one that will eventually send positive sea-level Rossby waves westward, waves that will eventually return as cold cycle-ending positive Kelvin waves, beginning another warming cycle.

1. The primary function of the passage as a whole is to

- (A) introduce a new explanation of a physical phenomenon
- (B) explain the difference between two related physical phenomena
- (C) illustrate the limitations of applying mathematics to complicated physical phenomena
- (D) indicate the direction that research into a particular physical phenomenon should take

(E) clarify the differences between an old explanation of a physical phenomenon and a new model of it

2. Which of the following best describes the organization of the first paragraph?

- (A) A theory is presented and criticized.
- (B) A model is described and evaluated.
- (C) A result is reported and its importance explained.
- (D) A phenomenon is noted and its significance debated.
- (E) A hypothesis is introduced and contrary evidence presented.

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

3. It can be inferred from the passage that which of the following would result fairly immediately from the cessation of the winds of an El Nino?

A Negative Rossby waves would cease to be generated in the eastern Pacific. B The sea level in the eastern Pacific would fall.

C The surface water in the eastern Pacific would again be cooled by being mixed with deep water.

4. Which of the following, if true, would most seriously undermine the validity of the model of El Nino that is presented in the passage?

- (A) During some years El Nino extends significantly farther along the coasts of Ecuador and Peru than during other years.
- (B) During periods of unusually cool temperatures along the eastern Pacific, an El Nino is much colder than normal.
- (C) The normal upwelling of cold water in the eastern Pacific depends much more on the local characteristics of the ocean than on atmospheric conditions.
- (D) The variations in the time it takes Rossby waves to cross the Pacific depend on the power of the winds that the waves encounter.
- (E) The western boundary of the Pacific basin is so irregular that it impedes most coastal Kelvin waves from heading eastward.

P15 (生命科学)

Traditionally, pollination by wind has been viewed as a reproductive process marked by random events in which the vagaries of the wind are compensated for by the generation of vast quantities of pollen, so that the ultimate production of new seeds is assured at the expense of producing much more pollen than is actually used. Because the potential hazards pollen grains are subject to as they are transported over long distances are enormous, wind-pollinated plants have, in the view above, compensated for the ensuing loss of pollen through happenstance by virtue of producing an amount of pollen that is one to three orders of magnitude greater than the amount produced by species pollinated by insects.

However, a number of features that are characteristic of wind-pollinated plants reduce pollen waste. For example, many wind-pollinated species fail to release pollen when wind speeds are low or when humid conditions prevail. Recent studies suggest another way in which species compensate for the inefficiency of wind pollination. These studies suggest that species frequently take advantage of the physics of pollen motion by generating specific aerodynamic environments within the immediate vicinity of their female reproductive organs. It is the morphology of these organs that dictates the pattern of airflow disturbances through which pollen must travel. The speed and direction of the airflow disturbances can combine with the physical properties of a species' pollen to produce a species-specific pattern of pollen collision on the surfaces of female reproductive organs. Provided that these surfaces are strategically located, the consequences of this combination can significantly increase the pollen-capture efficiency of a female reproductive organ.

A critical question that remains to be answered is whether the morphological attributes of the female reproductive organs of wind-pollinated species are evolutionary adaptations to wind pollination or are merely fortuitous. A complete resolution of the question is as yet impossible since adaptation must be evaluated for each species within its own unique functional context. However, it must be said that, while evidence of such evolutionary adaptations does exist in some species, one must be careful about attributing morphology to adaptation. For example, the spiral arrangement of scale-bract complexes on ovule-bearing pine cones, where the female reproductive organs of conifers are located, is important to the production of airflow patterns that spiral over the cone's surfaces, thereby passing airborne pollen from one scale to the next. However, these patterns cannot be viewed as an adaptation to wind pollination because the spiral arrangement occurs in a number of non-wind-pollinated plant lineages and is regarded as a characteristic of vascular plants, of which conifers are only one kind, as a whole. Therefore, the spiral arrangement is not likely to be the result of a direct adaptation to wind pollination.

1. The author of the passage is primarily concerned with discussing

- (A) the current debate on whether the morphological attributes of wind-pollinated plants are evolutionary adaptations
- (B) the kinds of airflow patterns that permit wind-pollinated plants to capture pollen most efficiently
- (C) the ways in which the reproductive processes of wind-pollinated plants are controlled by random events
- (D) a recently proposed explanation of a way in which wind-pollinated plants reduce pollen waste
- (E) a specific morphological attribute that permits one species of wind-pollinated plant to capture pollen

For the following question, consider each of the choices separately and select all that apply. 155 / 228

2. According to the passage, true statements about the release of pollen by windpollinated plants include which of the following?

- A The release can be affected by certain environmental factors.
- B The amount of pollen released increases on a rainy day.
- C Pollen is sometimes not released by plants when there is little wind.

3. It can be inferred from the passage that the claim that the spiral arrangement of scalebract complexes on an ovule-bearing pine cone is an adaptation to wind pollination would be more convincing if which of the following were true?

- (A) Such an arrangement occurred only in wind-pollinated plants.
- (B) Such an arrangement occurred in vascular plants as a whole.
- (C) Such an arrangement could be shown to be beneficial to pollen release.
- (D) The number of bracts could be shown to have increased over time.
- (E) The airflow patterns over the cone's surfaces could be shown to be produced by such arrangements.

4. Which of the following, if known, is likely to have been the kind of evidence used to support the view described in the first paragraph?

- (A) Wind speeds need not be very low for wind-pollinated plants to fail to release pollen.
- (B) The female reproductive organs of plants often have a sticky surface that allows them to trap airborne pollen systematically.
- (C) Grasses, as well as conifers, generate specific aerodynamic environments within the immediate vicinity of their reproductive organs.
- (D) Rain showers often wash airborne pollen out of the air before it ever reaches an appropriate plant.
- (E) The density and size of an airborne pollen grain are of equal importance in determining whether that grain will be captured by a plant.

P16 (美国历史)

Some recent historians have argued that life in the British colonies in America from approximately 1763 to 1789 was marked by internal conflicts among colonists. Inheritors of some of the viewpoints of early twentieth-century progressive historians such as Beard and Becker, these recent historians have put forward arguments that deserve evaluation.

The kind of conflict most emphasized by these historians is class conflict. Yet with the Revolutionary War dominating these years, how does one distinguish class conflict within that larger conflict?

Certainly not by the side a person supported. Although many of these historians have accepted the earlier assumption that Loyalists represented an upper class, new evidence indicates that Loyalists, like rebels, were drawn from all socio-economic classes. (It is nonetheless probably true that a larger percentage of the well-to-do joined the Loyalists than joined the rebels.) Looking at the rebel side, we find little evidence for the contention that lower-class rebels were in conflict with upper-class rebels. Indeed, the war effort against Britain tended to suppress class conflicts. Where it did not, the disputing rebels of one or another class usually became Loyalists. Loyalism thus operated as a safety valve to remove socioeconomic discontent that existed among the rebels. Disputes occurred, of course, among those who remained on the rebel side, but the extraordinary social mobility of eighteenth-century American society (with the obvious exception of slaves) usually prevented such disputes from hardening along class lines. Social structure was in fact so fluid—though recent statistics suggest a narrowing of economic opportunity as the latter half of the century progressed—that to talk about social classes at all requires the use of loose economic categories such as rich, poor, and middle class, or eighteenth-century designations like “the better sort.” Despite these vague categories, one should not claim unequivocally that hostility between recognizable classes cannot be legitimately observed. Outside of New York, however, there were very few instances of openly expressed class antagonism.

Having said this, however, one must add that there is much evidence to support the further claim of recent historians that sectional conflicts were common between 1763 and 1789. The “Paxton Boys” incident and the Regulator movement are representative examples of the widespread, and justified, discontent of western settlers against colonial or state governments dominated by eastern interests. Although undertones of class conflict existed beneath such hostility, the opposition was primarily geographical. Sectional conflict—which also existed between North and South—deserves further investigation.

In summary, historians must be careful about the kind of conflict they emphasize in eighteenth-century America. Yet those who stress the achievement of a general

consensus among the colonists cannot fully understand that consensus without understanding the conflicts that had to be overcome or repressed in order to reach it.

1. The author most likely refers to "historians such as Beard and Becker" (lines 4) in order to

- (A) isolate the two historians whose work is most representative of the viewpoints of Progressive historians
- (B) emphasize the need to find connections between recent historical writing and the work of earlier historians
- (C) make a case for the importance of the views of the Progressive historians concerning eighteenth-century American life
- (D) suggest that Progressive historians were the first to discover the particular internal conflicts in eighteenth-century American life mentioned in the passage

(E) point out historians whose views of history anticipated some of the views of the recent historians mentioned in the passage

2. According to the passage, Loyalism during the American Revolutionary War served the function of

- (A) eliminating the disputes that existed among those colonists who supported the rebel cause
- (B) drawing upper, as opposed to lower, socioeconomic classes away from the rebel cause
- (C) tolerating the kinds of socioeconomic discontent that were not allowed to exist on the rebel side
- (D) channeling conflict that existed within a socioeconomic class into the war effort against the rebel cause

(E) absorbing members of socioeconomic groups on the rebel side who felt themselves in contention with members of other socio-economic groups

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

3. The passage suggests that the author would be likely to agree with which of the following statements about the social structure of eighteenth-century American society?

- A It allowed greater economic opportunity than it did social mobility.
- B It permitted greater economic opportunity prior to 1750 than after 1750.
- C It did not contain rigidly defined socioeconomic divisions.

4. It can be inferred from the passage that the author would be most likely to agree with which of the following statements regarding socioeconomic class and support for the rebel and Loyalist causes during the American Revolutionary War?

- (A) Identifying a person's socioeconomic class is the least accurate method of ascertaining which side that person supported.
- (B) Identifying a person as a member of the rebel or of the Loyalist side does not necessarily reveal that person's particular socioeconomic class.
- (C) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although there were fewer disputes among socioeconomic classes on the Loyalist side.
- (D) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although the Loyalist side was made up primarily of members of the upper classes.

(E) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although many upper-class rebels eventually joined the Loyalists.

P17 (自然科学)

Before 1965 many scientists pictured the circulation of the ocean's water mass as consisting of large, slow-moving currents, such as the Gulf Stream. That view, based on 100 years of observations made around the globe, produced only a rough approximation of the true circulation. But in the 1950's and the 1960's,

newly developed techniques and equipment, including subsurface floats that move with ocean currents and emit identification signals, and ocean-current meters that record data for months at fixed locations in the ocean. These instruments disclosed an unexpected level of variability in the deep ocean. Rather than being characterized by smooth, large-scale currents that change seasonally (if at all), the seas are dominated by what oceanographers call mesoscale fields: fluctuating, energetic flows whose velocity can reach ten times the mean velocity of the major currents.

Mesoscale phenomena—the oceanic analogue of weather systems—often extend to distances of 100 kilometers and persist for 100 days (weather systems generally extend about 1,000 kilometers and last 3 to 5 days in any given area). More than 90 percent of the kinetic energy of the entire ocean may be accounted for by mesoscale variability rather than by large-scale currents. Mesoscale phenomena may, in fact, play a significant role in oceanic mixing, air-sea interactions, and occasional—but far-reaching—climatic events such as El Niño—the atmospheric-oceanic disturbance in the equatorial Pacific that affects global weather patterns.

Unfortunately, it is not feasible to use conventional techniques to measure mesoscale fields. To measure them properly, monitoring equipment would have to be laid out on a grid at intervals of at most 50 kilometers, with sensors at each grid point lowered deep in the ocean and kept there for many months. Because using these techniques would be prohibitively expensive and time-consuming, it was proposed in 1979 that tomography be adapted to measuring the physical properties of the ocean. In medical tomography xrays map the human body's density variations (and hence internal organs); the information from the x-rays, transmitted through the body along many different paths, is recombined to form three-dimensional images of the body's interior. It is primarily this multiplicative increase in data obtained from the multipath transmission of signals that accounts for oceanographers' attraction to tomography: it allows the measurement of vast areas with relatively few instruments. Researchers reasoned that low-frequency sound waves, because they are so well described mathematically and because even small perturbations in emitted sound waves can be detected, could be transmitted through the ocean over many different paths and that the properties of the ocean's interior—its temperature, salinity, density, and speed of currents—could be deduced on the basis of how the ocean altered the signals. Their initial trials were highly successful, and ocean acoustic tomography was born.

1. The author mentions El Niño (line 19) primarily in order to emphasize which of the following points?

- (A) The brief duration of weather patterns
- (B) The variability of mesoscale phenomena

- (C) The difficulty of measuring the ocean's large-scale currents
- (D) The effectiveness of low-frequency sound waves in mapping the ocean.

(E) The possible impact of mesoscale fields on weather conditions.

2. Which of the following best describes the organization of the third paragraph of the passage?

- (A) A theory is proposed, considered, and then attended.
- (B) Opposing views are presented, elaborated, and then reconciled.
- (C) A problem is described, then a solution is discussed and its effectiveness is affirmed.
- (D) An argument is advanced, then refuted, and an alternative is suggested.
- (E) A hypothesis is presented, qualified, and then reaffirmed.

3. The passage suggests that which of the following would be true if the ocean's circulation consisted primarily of large, slow-moving currents?

- (A) The influence of mesoscale fields on global weather patterns would remain the same.
- (B) Large-scale currents would exhibit more variability than is actually observed

(C) The majority of the ocean's kinetic energy would be derived from mesoscale fields.

(D) Atmospheric-oceanic disturbances such as El Nino would occur more often.

(E) Conventional measuring techniques would be a feasible method of studying the physical properties of the ocean.

4. Which of the following, if presented as the first sentence of a succeeding paragraph, would most logically continue the discussion presented in the passage?

- (A) Timekeeping in medical tomography must be precise because the changes in travel time caused by density fluctuations are slight.
- (B) To understand how ocean acoustic tomography works, it is necessary to know how sound travels in the ocean.

(C) Ships are another possibility, but they would need to stop every 50 kilometers to lower measuring instruments.

(D) These variations amount to only about 2 to 3 percent of the average speed of sound in water, which is about 1,500 meters per second.

(E) The device used in medical tomography emits a specially coded signal, easily distinguishable from background noise.

P18 (美国历史)

The 1960's witnessed two profound social movements: the civil rights movement and the movement protesting the war in Vietnam. Although they overlapped in time, they were largely distinct. For a brief moment in 1967, however, it appeared that the two movements might unite under the leadership of Martin Luther King, Jr.

King's role in the antiwar movement appears to require little explanation, since he was the foremost advocate of nonviolence of his time. But King's stance on the Vietnam War cannot be explained in terms of pacifism alone. After all, he was something of a latecomer to the antiwar movement, even though by 1965 he was convinced that the role of the United States in the war was indefensible. Why then the two years that passed before he translated his private misgivings into public dissent? Perhaps he believed that he could not criticize American foreign policy without endangering the support for civil rights that he had won from the federal government.

1. According to the passage, the delay referred to in lines 9-12 is perhaps attributable to which of the following?

(A) King's ambivalence concerning the role of the United States in the war in Vietnam (B) King's attempts to consolidate support for his leadership within the civil rights movement

(C) King's desire to keep the leadership of the civil rights movement distinct from that of the antiwar movement

(D) King's desire to draw support for the civil rights movement from the leadership of the antiwar movement

(E) King's reluctance to jeopardize federal support for the civil rights movement

2. The author supports the claim that "King's stance on the Vietnam War cannot be explained in terms of pacifism alone" (lines 7) by implying which of the following?

(A) There is little evidence that King was ever a student of pacifist doctrine.

(B) King, despite pacifist sympathies, was not convinced that the policy of the federal government in Vietnam was wrong.

(C) King's belief in nonviolence was formulated in terms of domestic policy rather than in terms of international issues.

(D) Had King's actions been based on pacifism alone, he would have joined the antiwar movement earlier than he actually did.

(E) Opponents of United States foreign policy within the federal government convinced King of their need for support.

3. Which of the following best describes the passage?

(A) It discusses an apparent inconsistency and suggests a reason for it.

(B) It outlines a sequence of historical events.

(C) It shows why a commonly held view is inaccurate.

(D) It evaluates an explanation and finally accepts that explanation.

(E) It contrasts two views of an issue.

P19 (社会制度)

A Marxist sociologist has argued that racism stems from the class struggle that is unique to the capitalist system—that racial prejudice is generated by capitalists as a means of controlling workers. His thesis works relatively well when applied to discrimination against Blacks in the United States, but his definition of racial prejudice as "racially based negative prejudgments against a group generally accepted as a race in any given region of ethnic competition," can be interpreted as also including hostility toward such ethnic groups as the Chinese in California and the Jews in medieval Europe. However, since prejudice against these latter peoples was not inspired by capitalists, he has to reason that such antagonisms were not really based on race. He disposes thusly (albeit unconvincingly) of both the intolerance faced by Jews before the rise of capitalism and

the early twentieth-century discrimination against Oriental people in California, which, inconveniently, was instigated by workers.

1. The author considers the Marxist sociologist's thesis about the origins of racial prejudice to be

- (A) unoriginal
- (B) unpersuasive
- (C) offensive
- (D) obscure
- (E) speculative

2. It can be inferred from the passage that the Marxist sociologist would argue that in a noncapitalist society racial prejudice would be

- (A) pervasive
- (B) tolerated
- (C) ignored
- (D) forbidden
- (E) nonexistent

P20 (女性题材)

In *The Women of Mexico City, 1796-1857*, Sylvia Marina Arrom argues that the status of women in Mexico City improved during the nineteenth century. According to Arrom, households headed by females and instances of women working outside the home were much more common than scholars have estimated; efforts by the Mexican government to encourage female education resulted in increased female literacy; and influential male writers wrote pieces advocating education, employment, and increased family responsibilities for women, while deploring women's political and marital inequality. Mention of the fact that the civil codes of 1870 and 1884 significantly advanced women's rights would have further strengthened Arrom's argument.

Arrom does not discuss whether women's improved status counteracted the effects on women of instability in the Mexican economy during the nineteenth century. However, this is not so much a weakness in her work as it is the inevitable result of scholars' neglect of this period. Indeed, such gaps in Mexican history are precisely what make Arrom's pioneering study an important addition to Latin American women's history.

1. The passage is primarily concerned with doing which of the following?

- (A) Reviewing a historical study of the status of women in Mexico City during the nineteenth century.
- (B) Analyzing the effects of economic instability on the status of women in Mexico during the nineteenth century
- (C) Advancing a thesis explaining why women's status in Mexico City improved during the nineteenth century
- (D) Rejecting the thesis that the status of women in Mexico City during the nineteenth century actually improved
- (E) Praising an author for a pioneering attempt to bridge significant gaps in Mexico's economic history prior to 1790

2. It can be inferred from the passage that Arrom would agree with which of the following assertions?

- (A) Efforts by the Mexican government to encourage education for women during the nineteenth century were hampered by the economic instability of that period.
- (B) The most significant advances in the rights of Mexican women during the nineteenth century occurred prior to 1857.
- (C) Improvements in the status of women in Mexico City during the nineteenth century were accompanied by similar improvements in the status of women in other large Latin American cities.
- (D) Scholars have in the past accorded the most significance to nineteenth-century

Mexican literature that supported the status quo in women's political and marital rights.

- (E) Scholars have in the past underestimated the number of households headed by females in Mexico City.

3. Which of the following best describes the author's attitude toward Arrom's work?

- (A) Uncritical approval

- (B) Enthusiasm tempered by minor reservations
(C) Praise for her thesis, despite skepticism regarding the sources of her evidence
(D) Reluctant acceptance, despite lingering doubts regarding the accuracy of her thesis
(E) Rejection, despite admiration for her attempt to break new ground in a hitherto neglected field
4. The author considers the first sentence of the last paragraph with the attitude of
(A) disappointment
(B) annoying
(C) ironic
(D) insincere
(E) speculative

P21 (人类学·风俗习惯)

Throughout human history there have been many stringent taboos concerning watching other people eat or eating in the presence of others. There have been attempts to explain these taboos in terms of inappropriate social relationships either between those who are involved and those who are not simultaneously involved in the satisfaction of a bodily need, or between those already satiated and those who appear to be shamelessly gorging. Undoubtedly such elements exist in the taboos, but there is an additional element with a much more fundamental importance. In prehistoric times, when food was so precious and the on-lookers so hungry, not to offer half of the little food one had was unthinkable, since every glance was a plea for life. Further, during those times, people existed in nuclear or extended family groups, and the sharing of food was quite literally supporting one's family or, by extension, preserving one's self.

1. If the argument in the passage is valid, taboos against eating in the presence of others who are not also eating would be likely in a society that
A had always had a limited supply of food
B emphasized the need to share worldly goods
C had a nomadic rather than an agricultural way of life

2. According to the passage, the author believes that past attempts to explain some taboos concerning eating are

- (A) unimaginative
- (B) implausible
- (C) inelegant
- (D) incomplete
- (E) unclear

P22 (美国历史-黑人)

Roger Rosenblatt's book *Black Fiction*, in attempting to apply literary rather than sociopolitical criteria to its subject, successfully alters the approach taken by most previous studies. As Rosenblatt notes, criticism of Black writing has often served as a pretext for expounding on Black history.

Addison Gayle's recent work, for example, judges the value of Black fiction by overtly political standards, rating each work according to the notions of Black identity which it propounds.

Although fiction assuredly springs from political circumstances, its authors react to those circumstances in ways other than ideological, and talking about novels and stories primarily as instruments of ideology circumvents much of the fictional enterprise. Rosenblatt's literary analysis discloses affinities and connections among works of Black fiction which solely political studies have overlooked or ignored. Writing acceptable criticism of Black fiction, however, presupposes giving satisfactory answers to a number of questions. First of all, is there a sufficient reason, other than the racial identity of the authors, to group together works by Black authors? Second, how does Black fiction make itself distinct from other modern fiction with which it is largely contemporaneous?

Rosenblatt shows that Black fiction constitutes a distinct body of writing that has an identifiable, coherent literary tradition. Looking at novels written by Blacks over the last eighty years, he discovers recurring concerns and designs independent of chronology. These structures are thematic, and they spring, not surprisingly, from the central fact that the Black characters in these novels exist in a predominantly White culture, whether they try to conform to that culture or rebel against it.

Black Fiction does leave some aesthetic questions open. Rosenblatt's thematic analysis permits considerable objectivity; he even explicitly states that it is not his intention to judge the merit of the various works-yet his reluctance seems misplaced, especially since an attempt to appraise might have led to interesting results. For instance, some of the novels appear to be structurally diffuse. Is this a defect, or are the authors working out

of, or trying to forge, a different kind of aesthetic? In addition, the style of some Black novels, like Jean Toomer's *Cane*, verges on expressionism or surrealism; does this technique provide a counterpoint to the prevalent theme that portrays the fate against which Black heroes are pitted, a theme usually conveyed by more naturalistic modes of expression?

In spite of such omissions, what Rosenblatt does include in his discussion makes for an astute and worthwhile study. *Black Fiction* surveys a wide variety of novels, bringing to our attention in the process some fascinating and little-known works like James Weldon Johnson's *Autobiography of an Ex-Colored Man*. Its argument is tightly constructed, and its forthright, lucid style exemplifies levelheaded and penetrating criticism.

1. The author of the passage objects to criticism of Black fiction like that by Addison Gayle because it

- (A) emphasizes purely literary aspects of such fiction
- (B) misinterprets the ideological content of such fiction
- (C) misunderstands the notions of Black identity contained in such fiction
- (D) substitutes political for literary criteria in evaluating such fiction
- (E) ignores the interplay between Black history and Black identity displayed in such fiction

2. The author of the passage is primarily concerned with

- (A) evaluating the soundness of a work of criticism
- (B) comparing various critical approaches to a subject
- (C) discussing the limitations of a particular kind of criticism
- (D) summarizing the major points made in a work of criticism
- (E) explaining the theoretical background of a certain kind of criticism

3. The author of the passage believes that *Black Fiction* would have been improved had Rosenblatt

- (A) evaluated more carefully the ideological and historical aspects of Black fiction

- (B) attempted to be more objective in his approach to novels and stories by Black authors
- (C) explored in greater detail the recurrent thematic concerns of Black fiction throughout its history
- (D) established a basis for placing Black fiction within its own unique literary tradition
- (E) assessed the relative literary merit of the novels he analyzes thematically

4. The author's discussion of Black Fiction can be best described as

- (A) pedantic and contentious
- (B) critical but admiring
- (C) ironic and deprecating
- (D) argumentative but unfocused
- (E) stilted and insincere

5. The author of the passage refers to James Weldon Johnson's *Autobiography of an Ex Colored Man* most probably in order to

- (A) point out affinities between Rosenblatt's method of thematic analysis and earlier criticism
- (B) clarify the point about expressionistic style made earlier in the passage
- (C) qualify the assessment of Rosenblatt's book made in the first paragraph of the passage
- (D) illustrate the affinities among Black novels disclosed by Rosenblatt's literary analysis
- (E) give a specific example of one of the accomplishments of Rosenblatt's work

P22 (希腊神话)

Of Homer's two epic poems, the *Odyssey* has always been more popular than the *Iliad*, perhaps because it includes more features of mythology that are accessible to readers.

Its subject (to use Maynard Mack's categories) is "life-as-spectacle," for readers, diverted by its various incidents, observe its hero Odysseus primarily from without; the tragic Iliad, however, presents "life-as-experience": readers are asked to identify with the mind of Achilles, whose motivations render him a not particularly likable hero. In addition, the Iliad, more than the Odyssey, suggests the complexity of the gods' involvement in human actions, and to the extent that modern readers find this complexity a needless complication, the Iliad is less satisfying than the Odyssey, with its simpler scheme of divine justice. Finally, since the Iliad presents a historically verifiable action, Troy's siege, the poem raises historical questions that are absent from the Odyssey's blithely imaginative world.

1. The author uses Mack's "categories" (lines 3) most probably in order to
(A) argue that the Iliad should replace the Odyssey as the more popular poem
(B) indicate Mack's importance as a commentator on the Iliad and the Odyssey
(C) suggest one way in which the Iliad and the Odyssey can be distinguished
(D) point out some of the difficulties faced by readers of the Iliad and the Odyssey
(E) demonstrate that the Iliad and the Odyssey can best be distinguished by comparing their respective heroes

2. The passage is primarily concerned with

- (A) distinguishing arguments
- (B) applying classifications
- (C) initiating a debate
- (D) resolving a dispute
- (E) developing a contrast

3. Select a sentence in the passage in which the author introduces the reason that a reader of the Iliad is likely to have trouble identifying with the poem's hero

P23 (社会心理学)

The age at which young children begin to make moral discriminations about harmful actions committed against themselves or others has been the focus of recent research into the moral development of children. Until recently, child psychologists supported pioneer developmentalist Jean Piaget in his hypothesis that because of their immaturity, children

under age seven do not take into account the intentions of a person committing accidental or deliberate harm, but rather simply assign punishment for transgressions on the basis of the magnitude of the negative consequences caused. According to Piaget, children under age seven occupy the first stage of moral development, which is characterized by moral absolutism (rules made by authorities must be obeyed) and imminent justice (if rules are broken, punishment will be meted out). Until young children mature, their moral judgments are based entirely on the effect rather than the cause of a transgression. However, in recent research, Keasey found that six-year-old children not only distinguish between accidental and intentional harm, but also judge intentional harm as naughtier, regardless of the amount of damage produced. Both of these findings seem to indicate that children, at an earlier age than Piaget claimed, advance into the second stage of moral development, moral autonomy, in which they accept social rules but view them as more arbitrary than do children in the first stage.

Keasey's research raises two key questions for developmental psychologists about children under age seven: do they recognize justifications for harmful actions, and do they make distinctions between harmful acts that are preventable and those acts that have unforeseen harmful consequences? Studies indicate that justifications excusing harmful actions might include public duty, self-defense, and provocation. For example, Nesdale and Rule concluded that children were capable of considering whether or not an aggressor's action was justified by public duty: five year olds reacted very differently to "Bonnie wrecks Ann's pretend house" depending on whether Bonnie did it "so somebody won't fall over it" or because Bonnie wanted "to make Ann feel bad." Thus, a child of five begins to understand that certain harmful actions, though intentional, can be justified; the constraints of moral absolutism no longer solely guide their judgments.

Psychologists have determined that during kindergarten children learn to make subtle distinctions involving harm. Darley observed that among acts involving unintentional harm, six-year-old children just entering kindergarten could not differentiate between foreseeable, and thus preventable, harm and unforeseeable harm for which the perpetrator cannot be blamed. Seven months later, however, Darley found that these same children could make both distinctions, thus demonstrating that they had become morally autonomous

1. Which of the following best describes the passage as a whole?
- (A) An outline for future research
 - (B) An expanded definition of commonly misunderstood terms

- (C) An analysis of a dispute between two theorists
- (D) A discussion of research findings in an ongoing inquiry
- (E) A confirmation of an established authority's theory

2. According to the passage, Darley found that after seven months of kindergarten six year olds acquired which of the following abilities?

- (A) Differentiating between foreseeable and unforeseeable harm
- (B) Identifying with the perpetrator of a harmful action
- (C) Justifying harmful actions that result from provocation
- (D) Evaluating the magnitude of negative consequences resulting from the breaking of rules
- (E) Recognizing the difference between moral absolutism and moral autonomy

3. According to the passage, Piaget and Keasey would not have agreed on which of the following points?

- (A) The kinds of excuses children give for harmful acts they commit
- (B) The age at which children begin to discriminate between intentional and unintentional harm
- (C) The intentions children have in perpetrating harm
- (D) The circumstances under which children punish harmful acts
- (E) The justifications children recognize for mitigating punishment for harmful acts

4. It can be inferred that the term "public duty" (line 24) in the context of the passage means which of the following?

- (A) The necessity to apprehend perpetrators.
- (B) The responsibility to punish transgressors
- (C) An obligation to prevent harm to another
- (D) The assignment of punishment for harmful action
- (E) A justification for punishing transgressions

5. According to the passage, Keasey's findings support which of the following conclusions about six- year-old children?

- (A) They have the ability to make autonomous moral judgments.
- (B) They regard moral absolutism as a threat to their moral autonomy.
- (C) They do not understand the concept of public duty.
- (D) They accept moral judgment made by their peers more easily than do older children.
- (E) They make arbitrary moral judgments.

6. It can be inferred from the passage that Piaget would be likely to agree with which of the following statements about the punishment that children under seven assign to wrongdoing?

- (A) The severity of the assigned punishment is determined by the perceived magnitude of negative consequences more than by any other factor.
- (B) The punishment is to be administered immediately following the transgression.
- (C) The children assign punishment less arbitrarily than they do when they reach the age of moral autonomy.
- (D) The punishment for acts of unintentional harm is less severe than it is for acts involving accidental harm.
- (E) The more developmentally immature a child, the more severe the punishment that the child will assign.

7. According to the passage, the research of Nesdale and Rule suggests which of the following about five-year-old children?

- (A) Their reactions to intentional and accidental harm determine the severity of the punishments they assign.
- (B) They, as perpetrators of harmful acts, disregard the feelings of the children they harm.

- (C) They take into account the motivations of actions when judging the behavior of other children.
- (D) They view public duty as a justification for accidental, but not intentional, harm.
- (E) They justify any action that protects them from harm.

P24 (人物传记)

Two recent publications offer different assessment of the career of the famous British nurse Florence Nightingale. A book by Anne Summers seeks to debunk the idealizations and present a reality at odds with Nightingale's heroic reputation. According to Summers, Nightingale's importance during the Crimean War has been exaggerated: not until near the war's end did she become supervisor of the female nurses. Additionally, Summers writes that the contribution of the nurses to the relief of the wounded was at best marginal. The prevailing problems of military medicine were caused by army organizational practices, and the addition of a few nurses to the medical staff could be no more than symbolic. Nightingale's place in the national pantheon, Summers asserts, is largely due to the propagandistic efforts of contemporary newspaper reporters.

By contrast, the editors of a new volume of Nightingale's letters view Nightingale as a person who significantly influenced not only her own age but also subsequent generations. They highlight her ongoing efforts to reform sanitary conditions after the war. For example, when she learned that peacetime living conditions in British barracks were so horrible that the death rate of enlisted men far exceeded that of neighboring civilian populations, she succeeded in persuading the government to establish a Royal Commission on the Health of the Army. She used sums raised through public contributions to found a nurses' training hospital in London. Even in administrative matters, the editors assert, her practical intelligence was formidable: as recently as 1947 the British Army's medical services were still using the cost-accounting system she had devised in the 1860's.

I believe that the evidence of her letters supports continued respect for Nightingale's brilliance and creativity. When counseling a village schoolmaster to encourage children to use their faculties of observation, she sounds like a modern educator. Her insistence on classifying the problems of the needy in order to devise appropriate treatments is similar to the approach of modern social workers. In sum, although Nightingale may not have achieved all of her goals during the Crimean War, her breadth of vision and ability to realize ambitious projects have earned her an eminent place among the ranks of social pioneers.

1. The passage is primarily concerned with evaluating

- (A) the importance of Florence Nightingale's innovations in the field of nursing

- (B) contrasting approaches to the writing of historical biography
- (C) contradictory accounts of Florence Nightingale's historical significance
- (D) the quality of health care in nineteenth-century England
- (E) the effect of the Crimean War on developments in the field of health care

2. According to the passage, the editors of Nightingale's letters credit her with contributing to which of the following?

- (A) Improving of the survival rate for soldiers in British Army hospitals during the Crimean War
- (B) The development of a nurses' training curriculum that was far in advance of its day
- (C) The increase in the number of women doctors practicing in British Army hospitals
- (D) Establishment of the first facility for training nurses at a major British university
- (E) The creation of an organization for monitoring the peacetime living conditions of British soldiers

3. The passage suggests which of the following about Nightingale's relationship with the British public of her day?

- (A) She was highly respected, her projects receiving popular and governmental support.
- (B) She encountered resistance both from the army establishment and the general public.
- (C) She was supported by the working classes and opposed by the wealthier classes.
- (D) She was supported by the military establishment but had to fight the governmental bureaucracy.
- (E) After initially being received with enthusiasm, she was quickly forgotten.

4. Which of the following is an assumption underlying the author's assessment of Nightingale's creativity?

- (A) Educational philosophy in Nightingale's day did not normally emphasize developing children's ability to observe.
- (B) Nightingale was the first to notice the poor living conditions in British military barracks in peacetime.

- (C) No educator before Nightingale had thought to enlist the help of village schoolmasters in introducing new teaching techniques.
- (D) Until Nightingale began her work, there was no concept of organized help for the needy in nineteenth-century Britain.
- (E) The British Army's medical services had no cost-accounting system until Nightingale devised one in the 1860's.

5. In the last paragraph, the author is primarily concerned with

- (A) summarizing the arguments about Nightingale presented in the first two paragraphs
- (B) refuting the view of Nightingale's career presented in the preceding paragraph
- (C) analyzing the weaknesses of the evidence presented elsewhere in the passage
- (D) citing evidence to support a view of Nightingale's career
- (E) correcting a factual error occurring in one of the works under review

P25 (黑人音乐)

Scholars often fail to see that music played an important role in the preservation of

African culture in the United States. They correctly note that slavery stripped some cultural elements from Black people—their political and economic systems—but they underestimate the significance of music in sustaining other African cultural values. African music, unlike the music of some other cultures, was based on a total vision of life in which music was not an isolated social domain. In African culture music was pervasive, serving not only religion, but all phases of life, including birth, death, work, and play. The methods that a community devises to perpetuate itself come into being to preserve aspects of the cultural legacy that that community perceives as essential. Music, like art in general, was so inextricably a part of African culture that it became a crucial means of preserving the culture during and after the dislocations of slavery.

8. The primary purpose of the passage is to

- (A) analyze the impact that slavery had on African political and economic systems
- (B) review the attempt of recent scholarship to study the influence of African music on other music
- (C) correct the failure of some scholars to appreciate the significance of music in African culture

(D) survey the ways by which people attempt to preserve their culture against the effects of oppression

(E) compare the relative importance of music with that of other art forms in culture

9. In line 9, the phrase isolated social domain refers to

(A) African music in relation to contemporary culture as a whole

(B) music as it may be perceived in non-African cultures

(C) a feature of African music that aided in transmitting African cultural values

(D) an aspect of the African cultural legacy

(E) the influence of music on contemporary culture

10. Which of the following statements concerning the function of African music can be inferred from the passage?

(A) It preserved cultural values because it was thoroughly integrated into the lives of the people.

(B) It was more important in the development of African religious life than in other areas of culture.

(C) It was developed in response to the loss of political and economic systems.

(D) Its pervasiveness in African culture hindered its effectiveness in minimizing the impact of slavery.

(E) Its isolation from the economic domains of life enabled it to survive the destructive impact of slavery.

11. According to the author, scholars would err in drawing which of the following conclusions? I. Slavery stripped the slaves of their political and economic systems. II. African music was similar to all other traditions of music in that it originated in a total vision of life. III. Music was a crucial part of the African cultural legacy.

(A) I only

(B) II only

- (C) I and II only
(D) II and III only

(E) I, II, and III

P26 (生命科学)

The two claws of the mature American lobster are decidedly different from each other. The crusher claw is short and stout; the cutter claw is long and slender. Such bilateral asymmetry, in which the right side of the body is, in all other respects, a mirror image of the left side, is not unlike handedness in humans. But where the majority of humans are right-handed, in lobsters the crusher claw appears with equal probability on either the right or left side of the body. Bilateral asymmetry of the claws comes about gradually. In the juvenile fourth and fifth stages of development, the paired claws are symmetrical and cutterlike. Asymmetry begins to appear in the juvenile sixth stage of development, and the paired claws further diverge toward well-defined cutter and crusher claws during succeeding stages. An intriguing aspect of this development was discovered by Victor Emmel. He found that if one of the paired claws is removed during the fourth or fifth stage, the intact claw invariably becomes a crusher, while the regenerated claw becomes a cutter. Removal of a claw during a later juvenile stage or during adulthood, when asymmetry is present, does not alter the asymmetry; the intact and the regenerate claws retain their original structures.

These observations indicate that the conditions that trigger differentiation must operate in a random manner when the paired claws are intact but in a nonrandom manner when one of the claws is lost. One possible explanation is that differential use of the claws determines their asymmetry. Perhaps the claw that is used more becomes the crusher. This would explain why, when one of the claws is missing during the fourth or fifth stage, the intact claw always becomes a crusher. With two intact claws, initial use of one claw might prompt the animal to use it more than the other throughout the juvenile fourth and fifth stages, causing it to become a crusher.

To test this hypothesis, researchers raised lobsters in the juvenile fourth and fifth stages of development in a laboratory environment in which the lobsters could manipulate oyster chips. (Not coincidentally, at this stage of development lobsters typically change from a habitat where they drift passively, to the ocean floor where they have the opportunity to be more active by burrowing in the substrate.) Under these conditions, the lobsters developed asymmetric claws, half with crusher claws on the left, and half with crusher claws on the right. In contrast, when juvenile lobsters were reared in a smooth tank without the oyster chips, the majority developed two cutter claws. This unusual configuration of symmetrical cutter claws did not change when the lobsters were

subsequently placed in a manipulatable environment or when they lost and regenerated one or both claws.

5. The passage is primarily concerned with

- (A) drawing an analogy between asymmetry in lobsters and handedness in humans
- (B) developing a method for predicting whether crusher claws in lobsters will appear on the left or right side
- (C) explaining differences between lobsters' crusher claws and cutter claws
- (D) discussing a possible explanation for the way bilateral asymmetry is determined in lobsters

(E) summarizing the stages of development of the lobster

6. Each of the following statements about the development of a lobster's crusher claw is supported by information in the passage EXCEPT:

- (A) It can be stopped on one side and begun on the other after the juvenile sixth stage.
- (B) It occurs gradually over a number of stages.
- (C) It is initially apparent in the juvenile sixth stage.
- (D) It can occur even when a prospective crusher claw is removed in the juvenile sixth stage.

(E) It is less likely in the absence of a manipulatable environment.

7. Which of the following experimental results, if observed, would most clearly contradict the findings of Victor Emmel?

- (A) A left cutterlike claw is removed in the fifth stage and a crusher claw develops on the right side.
- (B) A left cutterlike claw is removed in the fourth stage and a crusher claw develops on the left side.
- (C) A left cutterlike claw is removed in the sixth stage and a crusher claw develops on the right side.

- (D) Both cutterlike claws are removed in the fifth stage and a crusher claw develops on the left side.
- (E) Both cutterlike claws are removed in the fourth stage and a crusher claw develops on the right side.

8. It can be inferred that of the two laboratory environments mentioned in the passage, the one with oyster chips was designed to

- (A) prove that the presence of oyster chips was not necessary for the development of a crusher claw.
- (B) prove that the relative length of time that the lobsters were exposed to the oyster chip environment had little impact on the development of a crusher claw
- (C) eliminate the environment as a possible influence in the development of a crusher claw
- (D) control on which side the crusher claw develops
- (E) simulate the conditions that lobsters encounter in their natural environment

9. It can be inferred from the passage that one difference between lobsters in the earlier stages of development and those in the juvenile fourth and fifth stages is that lobsters in the early stages are

- (A) likely to be less active
- (B) likely to be less symmetrical
- (C) more likely to lose a claw
- (D) more likely to replace a crusher claw with a cutter claw
- (E) more likely to regenerate a lost claw

10. Which of the following conditions does the passage suggest is a possible cause for the failure of a lobster to develop a crusher claw?

- (A) The loss of a claw during the third or earlier stage of development
- (B) The loss of a claw during the fourth or fifth stage of development
- (C) The loss of a claw during the sixth stage of development

(D) Development in an environment devoid of material that can be manipulated

(E) Development in an environment that changes frequently throughout the stages of development

11. The author regards the idea that differentiation is triggered randomly when paired claws remain intact as

(A) irrefutable considering the authoritative nature of Emmel's observations

(B) likely in view of present evidence

(C) contradictory to conventional thinking on lobster-claw differentiation

(D) purely speculative because it is based on scattered research and experimentation

(E) unlikely because of apparent inconsistencies with theories on handedness in humans

P27 (生命科学)

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, 10 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. (212 words)

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 can point 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.

P28 (生命科学)

Ingestion of food containing spores of the pathogen *Ascosphaera apis* causes a fatal fungal disease known as chalk brood in honeybee larvae. However, larvae must be chilled to about 30°C (normal broodcomb temperature is 33-36°C) for the disease to develop. Accordingly, chalk brood is most common in spring and in small colonies. A recent study revealed that honeybees responsible for hive temperature maintenance purposely raised the hives' temperature when colonies were inoculated with *A. apis*. This "fever," or up-regulation of temperature, occurred before any larvae died, suggesting that the response is preventative and that either honeybee workers detect the infection before symptoms are visible or larvae communicate the ingestion of the pathogen. Temperature returned to normal by the end of the study, suggesting that increased temperature is not optimal when broods are not infected, as well as that the fever does not result merely from normal colony growth (i.e., an increase in the number of workers available for temperature maintenance). (160 words)

1. The primary purpose of the passage is to
 - (A) discuss the findings and implications of a particular study
 - (B) illustrate a process that formerly had been misunderstood
 - (C) outline the methods used to investigate a problem
 - (D) provide evidence to support a controversial theory
 - (E) contrast alternative interpretations of certain data
2. According to the passage, researchers concluded that fever in honeybee colonies is preventative because their study showed that such fever
 - (A) does not occur when hive temperatures are within normal range
 - (B) protects adult bees from contracting chalk brood infection
 - (C) occurs prior to the death of any larvae
 - (D) is more likely to occur in spring than in summer
 - (E) does not have an effect on uninfected broods

3. The passage implies that if hive temperature had not returned to normal by the end of the study in question, a probable conclusion of the researchers would have been that

- (A) up-regulation of temperature is a preventative measure against chalk brood
- (B) honeybees are incapable of purposely raising hive temperatures
- (C) apis cannot be completely eradicated through up-regulation of temperature alone
- (D) honeybee larvae have a mechanism to alert adult honeybees to the presence of *A. apis*

(E) honeybee larvae may benefit from increased hive temperature even when there is no *A. apis* present

4. According to the passage, which of the following is true of chalk brood infection among honeybee larvae?

- (A) Larvae in small colonies are more likely to pass the infection to adult honeybees than are larvae in large ones.
- (B) Infection with chalk brood induces larvae to raise their hive's temperature.

(C) The infection is more likely to affect larvae in winter than in spring.

(D) Larvae fail to develop symptoms of the disease when their brood –comb temperature remains within the normal range.

(E) Infected larvae exhibit visible symptoms of disease for a significant time before death.

P29 (文学评论)

Mary Barton, particularly in its early chapters, is a moving response to the suffering of the industrial worker in the England of the 1840's. What is most impressive about the book is the intense and painstaking effort made by the author, Elizabeth Gaskell, to convey the experience of everyday life in working-class homes. Her method is partly documentary in nature: the novel includes such features as a carefully annotated reproduction of dialect, the exact details of food prices in an account of a tea party, an itemized description of the furniture of the Bartons' living room, and a transcription (again annotated) of the ballad "The Oldham Weaver." The interest of this record is considerable, even though the method has a slightly distancing effect.

As a member of the middle class, Gaskell could hardly help approaching working-class life as an outside observer and a reporter, and the reader of the novel is always conscious of this fact. But there is genuine imaginative re-creation in her accounts of the walk in Green Heys Fields, of tea at the Bartons' house, and of John Barton and his friend's discovery of the starving family in the cellar in the chapter "Poverty and Death." Indeed, for a similarly convincing re-creation of such families' emotions and responses (which are more crucial than the material details on which the mere reporter is apt to concentrate), the English novel had to wait 60 years for the early writing of D. H. Lawrence. If Gaskell never quite conveys the sense of full participation that would completely authenticate this aspect of *Mary Barton*, 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 Legh, the weaver and naturalist who is devoted to the study of biology, vividly embodies one kind of response to an urban industrial environment: an affinity for living things that hardens, by its very contrast with its environment, into a kind of crankiness. The early chapters—about factory workers walking out in spring into Green Heys Fields; about Alice Wilson, remembering in her cellar the twig-gathering for brooms in the native village that she will never again see; about Job Legh, 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. (436 words)

1. 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

2. According to the passage, *Mary Barton* and the early novels of D. H. Lawrence share which of the following?

- (A) Depiction of the feelings of working-class families
- (B) Documentary objectivity about working-class circumstances
- (C) Richly detailed description of working-class adjustment to urban life
- (D) Imaginatively structured plots about working-class characters
- (E) Experimental prose style based on working-class dialect

3. Which of the following is most closely analogous to Job Legh 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

4. 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" (lines 29-30) for many members of the English working class in the nineteenth century?

- (A) Exorbitant food prices
- (B) Geographical displacement
- (C) Hazardous working conditions
- (D) Alienation from fellow workers
- (E) Dissolution of family ties

5. It can be inferred that the author of the passage believes that *Mary Barton* might have been an even better novel if Gaskell had

- (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

6. Which of the following phrases could best be substituted for the phrase “this aspect of *Mary Barton*” in line 16-17 without changing the meaning of the passage as a whole?

- (A) the material details in an urban working-class environment
- (B) the influence of *Mary Barton* on Lawrence’s early work
- (C) the place of *Mary Barton* in the development of the English novel
- (D) the extent of the poverty and physical suffering among England’s industrial workers in the 1840’s
- (E) the portrayal of the particular feelings and responses of working-class characters

7. The author of the passage describes *Mary Barton* as each of the following EXCEPT:

- (A) insightful
- (B) meticulous
- (C) vivid
- (D) poignant
- (E) lyrical

P30 (气象科学)

As of the late 1980’s, 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 planet wide 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. (156 words)

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) reconciling discrepant findings

2. It can be inferred that one reason the fourteen models described in the passage failed to agree was that

- (A) they failed to incorporate the most up-to-date information about the effect of clouds on climate
- (B) they were based on faulty information about factors other than clouds that affect climate
- (C) they were based on different assumptions about the overall effects of clouds on climate
- (D) their originators disagreed about the kinds of forecasts the models should provide
- (E) their originators disagreed about the factors other than clouds that should be included in the models

3. It can be inferred that the primary purpose of the models included in the study discussed in the second paragraph of the passage was to

- (A) predict future changes in the world's climate
- (B) predict the effects of cloud systems on the world's climate
- (C) find a way to prevent a disastrous planetwide temperature increase

- (D) assess the percentage of the Earth's surface covered by cloud systems
- (E) estimate by how much the amount of carbon dioxide in the Earth's atmosphere will increase

4. 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 of clouds?
- (E) What proportion of the clouds in the atmosphere form over land masses?

P31 (生命科学)

Over the years, biologists have suggested two main pathways by which sexual selection may have shaped the evolution of male birdsong. In the first, male competition and intrasexual selection produce relatively short, simple songs used mainly in territorial behavior. In the second, female choice and intersexual selection produce longer, more complicated songs used mainly in mate attraction; like such 5 visual ornamentation as the peacock's tail, elaborate vocal characteristics increase the male's chances of being chosen as a mate, and he thus enjoys more reproductive success than his less ostentatious rivals. The two pathways are not mutually exclusive, and we can expect to find examples that reflect their interaction. Teasing them apart has been an important challenge to evolutionary biologists.

Early research confirmed the role of intrasexual selection. In a variety of experiments in the field, males responded aggressively to recorded songs by exhibiting territorial behavior near the speakers. The breakthrough for research into intersexual selection came in the development of a new technique for investigating female response in the laboratory. When female cowbirds raised in isolation in soundproof chambers were exposed to recordings of male song, they responded by exhibiting mating behavior. By quantifying the responses, researchers were able to determine what particular features of the song were most important. In further experiments on song sparrows, researchers found that when exposed to a single song type repeated several times or to a repertoire

of different song types, females responded more to the latter. The beauty of the experimental design is that it effectively rules out confounding variables; acoustic isolation assures that the female can respond only to the song structure itself.

If intersexual selection operates as theorized, males with more complicated songs should not only attract females more readily but should also enjoy greater reproductive success. At first, however, researchers doing fieldwork with song sparrows found no correlation between larger repertoires and early mating, which has been shown to be one indicator of reproductive success; further, common measures of male quality used to predict reproductive success, such as weight, size, age, and territory, also failed to correlate with song complexity.

The confirmation researchers had been seeking was finally achieved in studies involving two varieties of warblers. Unlike the song sparrow, which repeats one of its several song types in bouts before switching to another, the warbler continuously composes much longer and more variable songs without repetition. For the first time, researchers found a significant correlation between repertoire size and early mating, and they discovered further that repertoire size had a more significant effect than any 30 other measure of male quality on the number of young produced. The evidence suggests that warblers use their extremely elaborate songs primarily to attract females, clearly confirming the effect of intersexual selection on the evolution of birdsong. (462 words)

1. The passage is primarily concerned with

- (A) showing that intrasexual selection has a greater effect on birdsong than does intersexual selection
- (B) contrasting the role of song complexity in several species of birds
- (C) describing research confirming the suspected relationship between intersexual selection and the complexity of birdsong
- (D) demonstrating the superiority of laboratory work over field studies in evolutionary biology

(E) illustrating the effectiveness of a particular approach to experimental design in evolutionary biology

2. The author mentions the peacock's tail in line 5 most probably in order to

- (A) cite an exception to the theory of the relationship between intrasexual selection and male competition
- (B) illustrate the importance of both of the pathways that shaped the evolution of birdsong
- (C) draw a distinction between competing theories of intersexual selection

- (D) give an example of a feature that may have evolved through intersexual selection by female choice
- (E) refute a commonly held assumption about the role of song in mate attraction

3. According to the passage, which of the following is specifically related to intrasexual selection?

- (A) Female choice
- (B) Territorial behavior
- (C) Complex song types
- (D) Large song repertoires
- (E) Visual ornamentation

4. Which of the following, if true, would most clearly demonstrate the interaction mentioned in lines 7-8?

- (A) Female larks respond similarly both to short, simple songs and to longer, more complicated songs.
- (B) Male canaries use visual ornamentation as well as elaborate song repertoires for mate attraction.
- (C) Both male and female blackbirds develop elaborate visual and vocal characteristics.
- (D) Male jays use songs to compete among themselves and to attract females.
- (E) Male robins with elaborate visual ornamentation have as much reproductive success as rivals with elaborate vocal characteristics.

5. The passage indicates that researchers raised female cowbirds in acoustic isolation in order to

- (A) eliminate confounding variables
- (B) approximate field conditions
- (C) measure reproductive success
- (D) quantify repertoire complexity

(E) prevent early mating

6. According to the passage, the song sparrow is unlike the warbler in that the song sparrow

- (A) uses songs mainly in territorial behavior
- (B) continuously composes long and complex songs
- (C) has a much larger song repertoire
- (D) repeats one song type before switching to another

(E) responds aggressively to recorded songs

7. The passage suggests that the song sparrow experiments mentioned in lines 20-24 failed to confirm the role of intersexual selection because

- (A) females were allowed to respond only to the song structure
- (B) song sparrows are unlike other species of birds
- (C) the experiments provided no evidence that elaborate songs increased male reproductive success
- (D) the experiments included the songs of only a small number of different song sparrows

(E) the experiments duplicated some of the limitations of previous field studies

P32 (天体物理)

If a supernova (the explosion of a massive star) triggered star formation from dense clouds of gas and dust, and if the most massive star to be formed from the cloud evolved into a supernova and triggered a new round of star formation, and so on, then a chain of star-forming regions would result. If many such chains were created in a differentially rotating galaxy, the distribution of stars would resemble the observed distribution in a spiral galaxy.

This line of reasoning underlies an exciting new theory of spiral-galaxy structure. A computer simulation based on this theory has reproduced the appearance of many spiral galaxies without assuming an underlying density wave, the hallmark of the most widely accepted theory of the large-scale structure of spiral galaxies. That theory maintains that a density wave of spiral form sweeps through the central plane of a galaxy, compressing clouds of gas and dust, which collapse into stars that form a spiral pattern.

9. The primary purpose of the passage is to

- (A) describe what results when a supernova triggers the creation of chains of star-forming regions
(B) propose a modification in the most widely accepted theory of spiral-galaxy structure
(C) compare and contrast the roles of clouds of gas and dust in two theories of spiral-galaxy structure
(D) describe a new theory of spiral-galaxy structure and contrast it with the most widely accepted theory
(E) describe a new theory of spiral-galaxy structure and discuss a reason why it is inferior to the most widely accepted theory
10. The passage implies that, according to the new theory of spiral-galaxy structure, a spiral galaxy can be created by supernovas when the supernovas are
(A) producing an underlying density wave
(B) affected by a density wave of spiral form
(C) distributed in a spiral pattern
(D) located in the central plane of a galaxy
(E) located in a differentially rotating galaxy
11. Which of the following, if true, would most discredit the new theory as described in the passage?
(A) The exact mechanism by which a star becomes a supernova is not yet completely known and may even differ for different stars.
(B) Chains of star-forming regions like those postulated in the new theory have been observed in the vicinity of dense clouds of gas and dust.
(C) The most massive stars formed from supernova explosions are unlikely to evolve into super novas.
(D) Computer simulations of supernovas provide a poor picture of what occurs just before a supernova explosion.
(E) A density wave cannot compress clouds of gas and dust to a density high enough to create a star.
12. The author's attitude toward the new theory of spiral-galaxy structure can best be described as
(A) euphoric
(B) enthusiastic
(C) concerned
(D) critical
(E) disputatious

P33 (生命科学)

Flatfish, such as the flounder, are among the few vertebrates that lack approximate bilateral symmetry (symmetry in which structures to the left and right of the body's midline are mirror images). Most striking among the many asymmetries evident in an adult flatfish is eye placement: before maturity one eye migrates, so that in an adult flatfish both eyes are on the same side of the head. While in most species with asymmetries virtually all adults share the same asymmetry, members of the starry flounder species can be either left-eyed (both eyes on the left side of head) or right-eyed. In the waters between the United States and Japan, the starry flounder populations vary from about 50 percent left-eyed off the United States West Coast, through about 70 percent left-eyed halfway between the United States and Japan, to nearly 100 percent left-eyed off

the Japanese coast.

Biologists call this kind of gradual variation over a certain geographic range a "cline" and interpret clines as strong indications that the variation is adaptive, a response to environmental differences. For the starry flounder this interpretation implies that a geometric difference (between fish that are mirror images of one another) is adaptive, that left-eyedness in the Japanese starry flounder has been selected for, which provokes a perplexing question: what is the selective advantage in having both eyes on one side rather than on the other?

The ease with which a fish can reverse the effect of the sidedness of its eye asymmetry simply by turning around has caused biologists to study internal anatomy, especially the optic nerves, for the answer. In all flatfish the optic nerves cross, so that the right optic nerve is joined to the brain's left side and vice versa. This crossing introduces an asymmetry, as one optic nerve must cross above or below the other. G. H. Parker reasoned that if, for example, a flatfish's left eye migrated when the right optic nerve was on top, there would be a twisting of nerves, which might be mechanically disadvantageous. For starry flounders, then, the left-eyed variety would be selected against, since in a starry flounder the left optic nerve is uppermost.

The problem with the above explanation is that the Japanese starry flounder population is almost exclusively left-eyed, and natural selection never promotes a purely less advantageous variation. As other explanations proved equally untenable, biologists concluded that there is no important adaptive difference between left-eyedness and right-eyedness, and that the two characteristics are genetically associated with some other adaptively significant characteristic. This situation is one commonly encountered by evolutionary biologists, who must often decide whether a characteristic is adaptive or selectively neutral. As for the left-eyed and right-eyed flatfish, their difference, however striking, appears to be an evolutionary red herring.

1. According to the passage, starry flounder differ from most other species of flatfish in that starry flounder

- (A) are not basically bilaterally symmetric
- (B) do not become asymmetric until adulthood
- (C) do not all share the same asymmetry
- (D) have both eyes on the same side of the head
- (E) tend to cluster in only certain geographic regions

2. The author would be most likely to agree with which of the following statements about left-eyedness and right-eyedness in the starry flounder?

I. They are adaptive variations by the starry flounder to environmental differences.

II They do not seem to give obvious selective advantages to the starry flounder.

III They occur in different proportions in different locations.

- (A) I only
- (B) II only
- (C) I and III only
- (D) II and III only
- (E) I, II, and III

3. According to the passage, a possible disadvantage associated with eye migration in flatfish is that the optic nerves can
- (A) adhere to one another
 - (B) detach from the eyes
 - (C) cross
 - (D) stretch
 - (E) twist
4. Which of the following best describes the organization of the passage as a whole?
- (A) A phenomenon is described and an interpretation presented and rejected.
 - (B) A generalization is made and supporting evidence is supplied and weighed.
 - (C) A contradiction is noted and a resolution is suggested and then modified.
 - (D) A series of observations is presented and explained in terms of the dominant theory.
 - (E) A hypothesis is introduced and corroborated in the light of new evidence.
5. The passage supplies information for answering which of the following questions?
- (A) Why are Japanese starry flounder mostly left-eyed?
 - (B) Why should the eye-sidedness in starry flounder be considered selectively neutral?
 - (C) Why have biologists recently become interested in whether a characteristic is adaptive or selectively neutral?
 - (D) How do the eyes in flatfish migrate?
 - (E) How did Parker make his discoveries about the anatomy of optic nerves in flatfish?
6. Which of the following is most clearly similar to a cline as it is described in the second paragraph of the passage?
- (A) A vegetable market in which the various items are grouped according to place of origin
 - (B) A wheat field in which different varieties of wheat are planted to yield a crop that will bring the maximum profit
 - (C) A flower stall in which the various species of flowers are arranged according to their price
 - (D) A housing development in which the length of the front struts supporting the porch of each house increases as houses are built up the hill
 - (E) A national park in which the ranger stations are placed so as to be inconspicuous, and yet as easily accessible as possible
7. Which of the following phrases from the passage best expresses the author's conclusion about the meaning of the difference between left-eyed and right-eyed flatfish?
- (A) "Most striking"

P34 (物理学研究)

Quantum mechanics is a highly successful theory: it supplies methods for accurately calculating the results of diverse experiments, especially with minute particles. The predictions of quantum mechanics, however, give only the probability of an event, not a deterministic statement of whether or not the event will occur. Because of this probabilism, Einstein remained strongly dissatisfied with the theory throughout his life, though he did not maintain that quantum mechanics is wrong. Rather, he held that it is incomplete: in quantum mechanics the motion of a particle must be described in terms of probabilities, he argued, only because some parameters that determine the motion have not been specified. If these hypothetical "hidden parameters" were known, a fully deterministic trajectory could be defined. Significantly, this hidden-parameter quantum theory leads to experimental predictions different from those of traditional quantum mechanics. Einstein's ideas have been tested by experiments performed since his death, and as most of these experiments support traditional quantum mechanics, Einstein's approach is almost certainly erroneous.

1. The author regards the idea that traditional quantum mechanics is incomplete with
 - (A) approval
 - (B) surprise
 - (C) indifference
 - (D) apprehension
 - (E) skepticism
2. It can be inferred from the passage that the author's conclusion that Einstein's approach is "erroneous" (line 14) might have to be modified because
 - (A) it is theoretically possible to generate plausible theories with hidden parameters within them
 - (B) some experimental tests of Einstein's theory do not disconfirm the hidden-parameter theory of quantum mechanics
 - (C) it is possible for a theory to have hidden parameters and yet be probabilistic
 - (D) traditional quantum mechanics has not yet been used to analyze all of the phenomena to which it could be applied
 - (E) there are too many possible hidden parameters to develop meaningful tests of hidden-parameter theories
3. According to the passage, Einstein posed objections to the
 - (A) existence of hidden parameters in quantum theory
 - (B) probabilistic nature of quantum mechanics
 - (C) idea that quantum mechanics is incomplete
 - (D) results of experiments testing quantum theory
 - (E) importance accorded quantum mechanics in physics
4. The passage suggests that which of the following would have resulted if the experiments mentioned in lines 11-24 had not supported the predictions of traditional quantum mechanics?
 - (A) Einstein, had he been alive, would have revised his approach to quantum mechanics.
 - (B) Hidden-parameter theories would have been considered inaccurate descriptions of real-world

phenomena.

- (C) A deterministic description of the motion of a particle might still be considered possible.
- (D) Quantum mechanics would have ceased to attract the attention of physicists.
- (E) Einstein, had he been alive, would have abandoned attempts to specify the hidden parameters that describe motion.

逻辑题

P35. A thorough search of Edgar Allan Poe's correspondence has turned up not a single letter in which he mentions his reputed morphine addiction. On the basis of this evidence it is safe to say that Poe's reputation for having been a morphine addict is undeserved and that reports of his supposed addiction are untrue.

Which of the following is assumed by the argument above?

- (A) Reports claiming that Poe was addicted to morphine did not begin to circulate until after his death.
- (B) None of the reports of Poe's supposed morphine addiction can be traced to individuals who actually knew Poe.
- (C) Poe's income from writing would not have been sufficient to support a morphine addiction.
- (D) Poe would have been unable to carry on an extensive correspondence while under the influence of morphine.
- (E) Fear of the consequences would not have prevented Poe from indicating in his correspondence that he was addicted to morphine.

P36. Over a period of several months, researchers attached small lights to the backs of wetas—flightless insects native to New Zealand—enabling researchers for the first time to make comprehensive observations of the insects' nighttime activities. Thus, since wetas forage only at night, the researchers' observations will significantly improve knowledge of the normal foraging habits of wetas. **197 / 228**

Which of the following is an assumption on which the argument depends?

- (A) Researchers were interested only in observing the wetas' foraging habits and so did not keep track of other types of behavior.
- (B) No pattern of behavior that is exhibited by wetas during the nighttime is also exhibited by wetas during the daytime.
- (C) Attaching the small lights to the wetas' backs did not greatly alter the wetas' normal night-time foraging habits.
- (D) Wetas typically forage more frequently during the months in which the researchers studied them than they do at other times.
- (E) The researchers did not use other observational techniques to supplement their method of using small lights to track the nighttime behavior of wetas.

P37. Sleep deprivation is a known cause of workplace error, and many physicians frequently go without sleep for periods of 24 hours or more. However, few of these physicians have, in the course of a routine examination by a peer, been diagnosed with sleep deprivation. So there is little cause for concern that habitual sleep deprivation will cause widespread physician error.

The answer to which of the following questions would be most helpful in evaluating the argument? (A) Do physicians who have been diagnosed with sleep disorders also show signs of other ills not

related to sleep deprivation?

(B) Is the ability to recognize the symptoms of sleep deprivation in others significantly impaired by habitual sleep deprivation?

(C) Do factors other than habitual sleep deprivation ever lead to errors in the workplace on the part of physicians?

(D) Of people who have recently been treated by physicians, what percentage believe that many physicians have occasionally suffered from sleep deprivation?

(E) Is the incidence of sleep deprivation higher among physicians than it is among other health care workers?

P38. Women make up the majority of the population in the country, and many of the prescriptions written by doctors for tranquilizers are for women patients. The testing of these drugs for efficacy and the calibration of recommended doses, however, was done only on men. Not even the animals used to test toxicity were female.

The statements above, if true, best support which of the following as a conclusion?

- (A) Some tranquilizers are more appropriately prescribed for women than for men.
- (B) There have been no reports of negative side effects from prescribed tranquilizers in women
- (C) Tranquilizers are prescribed for patients in some instances when doctors do not feel confident of their diagnoses.
- (D) The toxicity of drugs to women is less than the toxicity of the same drugs to men.
- (E) Whether the recommended dosages of tranquilizers are optimal for women is not known.

P39. Which of the following most logically completes the argument?

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

a some prehistoric cave paintings in France also depict other animals as having a hump

b fossils of the giant deer are much more common in Ireland than in France

c animal humps are composed of fatty tissue, which does not fossilize

d the cave paintings of the giant deer were painted well before 16,000 years ago

e only one currently existing species of deer has any anatomical feature that even remotely resembles a hump

P40. Meteorite explosions in the Earth's atmosphere as large as the one that destroyed forests in Siberia, with approximately the force of a twelve-megaton nuclear blast, occur about once a century. The response of highly automated systems controlled by complex computer programs to unexpected circumstances is unpredictable.

Which of the following conclusions can most properly be drawn, if the statements above are true, about a highly automated nuclear-missile defense system controlled by a complex computer program?

- A. Within a century after its construction, the system would react inappropriately and might accidentally start a nuclear war.
- B. The system would be destroyed if an explosion of a large meteorite occurred in the Earth's atmosphere.
- C. It would be impossible for the system to distinguish the explosion of a large meteorite from the explosion of a nuclear weapon.
- D. Whether the system would respond inappropriately to the explosion of a large meteorite would depend on the location of the blast.
- E. It is not certain what the system's response to the explosion of a large meteorite would be, if its designers did not plan for such a contingency.

P41. 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.

P42 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.

P43 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. Mature butterflies retain the glycosides in a mature monarch butterfly could be used to determine its place of origin.

Passage 44

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

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

- (A) It refutes the possibility of a connection between two events previously thought to be related.
- (B) It describes how a hypothesis might account for the timing of a phenomenon described earlier in the passage
- (C) It presents evidence that casts doubt on a statement made in the first sentence of the passage
- (D) It clarifies a distinction between two related hypotheses
- (E) It introduces findings that challenge a dominant explanation for a particular phenomenon

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

- (A) Methanogens must have appeared on Earth later than 2.3 billion years ago.
- (B) Methanogens must have been much more prevalent in some regions of the early Earth than in others.
- (C) Methanogens produce a greenhouse gas that is more susceptible to destruction by the Sun's ultraviolet rays than is ammonia.
- (D) Methanogens could not have thrived in early Earth's atmosphere without the presence of ammonia.
- (E) Methanogens would have had a less significant effect on early Earth's atmosphere if they had evolved after the appearance of cyanobacteria.

Passage 45

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.

1. 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 46

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 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.

2. 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

3. 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.

Passage 47

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

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

2. The author of the passage suggests that the feminist scholars mentioned in the first sentence distort the meaning of certain nineteenth-century American women's choices by

- ☐ A ascribing those choices to a particular attitude toward marriage
- ☐ B ignoring evidence about single women's motives for becoming writers or professionals
- ☐ C overestimating the number of nineteenth-century American women who were single by choice.

Passage 48

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

1. The primary purpose of the passage is to

- (A) present a scientific theory that challenges a widely held theory
- (B) summarize the basis for a large body of scientific research
- (C) defend an established scientific theory in light of recent criticism
- (D) express skepticism about the results obtained by a particular researcher
- (E) compare the results of two particular scientific studies

2. Which of the following best characterizes the organization of the passage as a whole?

- (A) A position is noted, an alternative to that position is introduced, and then several points in support of the alternative are discussed.
- (B) A theory is discussed, an inconsistency within that theory is illustrated, and then a recommendation is made for further inquiry.
- (C) Certain research results are described, the significance of those results is explained, and then a novel interpretation of those results is summarized.
- (D) A question is posed, a possible answer to that question is suggested, and then evidence is provided to corroborate that answer.
- (E) A debate is outlined, contrasting viewpoints within the debate are discussed, and then one viewpoint is demonstrated to be correct.

3. According to the passage, Farmer concedes that endothermy provides an explanation for which of the following features shared by birds and mammals?

- (A) The ability to forage
- (B) The ability to sustain exercise
- (C) The instinct to care for offspring
- (D) Flexibility in habitat usage
- (E) Body insulation

Passage 49

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_____.

1. 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 lightning or from the purposeful use of fire

Passage 50

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

1. According to the passage, the "earlier authors" adopted a model for English instruction that

- (A) mirrored the practice used in Latin instruction
- (B) was originally formulated by Dilworth
- (C) was less esoteric than that adopted by Dilworth
- (D) stressed familiarity with the peculiarities of English spelling
- (E) emphasized the importance of fluent and articulate speech

2. The author of the passage would probably agree with which of the following

criticisms of English primers predating Dilworth's?

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

Passage 51

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.

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

1. According to the passage, the immobilization hypothesis fails to account for which of the following facts?

- ☐ A That sleep does not appear to be a uniform and unchanging state
- ☐ B That under certain conditions animals appear to need more sleep than usual
- ☐ C That animals rarely sleep when a predator has been detected nearby

2. In the context of the passage as a whole, the highlighted portion serves primarily to

- (A) present the thinking that led scientists to qualify a widely accepted view
- (B) describe the basis on which a hypothesis was advanced
- (C) illustrate the kind of reasoning that is applied in a branch of science
- (D) explain how a hypothesis can be tested empirically
- (E) relate the analysis that refined a tentative explanation

Passage 52

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

1. The author implies which of the following about most cultural anthropologists working prior to the 1970s?

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

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

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

Passage 53

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.

Passage 54

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.

1. 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.

Passage 55

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

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

1. The author of the passage is primarily concerned with

- A. confirming a theory
- B. supporting a statement
- C. presenting new information
- D. predicting future discoveries
- E. comparing points of view

2. It can be inferred that one reason the fourteen models described in the passage failed to agree was that

- A. they failed to incorporate the most up-to-date information about the effect of clouds on climate
- B. they were based on faulty information about factors other than clouds that affect climate
- C. they were based on different assumptions about the overall effects of clouds on climate
- D. their originators disagreed about the kinds of forecasts the models should provide
- E. their originators disagreed about the factors other than clouds that should be included in the models

3. The information in the passage suggests that scientists would have to answer which of the following questions in order to predict the effect of clouds on the warming of the globe?

- A. What kinds of cloud systems will form over the Earth?
- B. How can cloud systems be encouraged to form over the ocean?
- C. What are the causes of the projected planetwide temperature increase?
- D. What proportion of cloud systems are currently composed of cirrus clouds?
- E. What proportion of the clouds in the atmosphere form over land masses?

Passage 56

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

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

- A. It identifies a factor that complicates biologists' ability to draw conclusions about the behavior of cetaceans in their natural environments.
- B. It illustrates the kind of deduction mentioned in the preceding sentence.
- C. It explains why skeptics have remained unpersuaded by evidence that has been put forward in support of the claim that cetaceans have culture.
- D. It introduces a claim that would be dismissed by both supporters and opponents of the view that cetaceans have culture.
- E. It notes a previously overlooked factor that might shed light on the question of whether cetaceans have culture.

2. The passage suggests which of the following about captive cetaceans?

- A. Whether they are engaged in social learning is a subject of disagreement among biologists.
- B. Their ability to imitate new behaviors is more extensive than that of noncaptive cetaceans.
- C. They exhibit few behaviors that have not also been observed in cetaceans in their natural habitats.
- D. They appear to adopt new behaviors more quickly than noncaptive cetaceans.
- E. They exhibit tendencies that suggest a capacity for the kind of behavior that qualifies as cultural.

Passage 57

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

- A. presenting 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 that 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 then they are now.
- C. Australia was less densely populated at that time than was the region that is now the United States.
- D. Australia's climate was significantly drier than it is now.

E. Global sea level was lower than it is now.

3. The author of the passage implies that, in what is now the United States, archaeological evidence of inhabitation in the period from 40,000 to 25,000 years ago is lacking because that region is

- A. had its oldest habitation sites inundated following a postglacial rise in sea level
- B. has many resource-rich rivers that facilitated the dispersal of early inhabitants from an initial concentration in coastal areas
- C. was sparsely populated until about 25,000 years ago
- D. was colonized less than 25,000 years ago
- E. was inhabited only by hunter-gatherers until 25,000 years ago

Passage 58

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.

1. 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.

Passage 59

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 novelist 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.

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

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

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

Passage 60

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, 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 **tiny bones from fish**.

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

Passage 61

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

1. **According to the passage, Alpers would say that the assumptions underlying the “paradigm” were**
 - (A) inconsistent with the way some mapmakers prior to 1800 understand their own work
 - (B) dependent on a seventeenth-century conception of mapmaking visual engineering
 - (C) unconcerned with the difference between the aesthetic and technical questions of mapmaking
 - (D) insensitive to divisions among cartographers working in the period after 1800
 - (E) supported by the demonstrable technical superiority of mapmaking made after 1800
2. **It can be inferred from the passage that, beginning in the 1980s, historians of**

cartography

- (A) placed greater emphasis on the beauty of maps made after 1800
- (B) expanded their range of study to include more material created after 1800
- (C) grew more sensitive to the way mapmakers prior to 1800 conceived of their work
- (D) came to see the visual details of maps as aesthetic objects rather than practical cartographic aids
- (E) reduced the attention they paid to the technical aspects of mapmaking

Passage 62

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

1. The author's primary purpose is that

- (A) the evidence used in support of a particular argument is questionable
- (B) a distinction between two genres of writing has been overlooked
- (C) a particular issue is more complex than it might appear
- (D) two apparently different works share common features
- (E) two eighteenth-century authors held significantly different attitudes toward a particular

2. According to the passage, which of the following is true of Hume's reputation in the late eighteenth century?

- (A) He was more regarded as a historian than Gibbon
- (B) His historical writing, like his philosophical writing, came to be regarded as problematic
- (C) He was more well-known for his historical writing than for his philosophical writing
- (D) His historic writing came to be regarded as morally questionable because of his association with Gibbon

(E) His views about classical paganism brought him disapproval among the general reading public

3. The highlighted sentence exemplifies which of the following?

- (A) Cultural authorities' attempt to use novels to support their view about the value of reading fiction
- (B) Eighteenth-century women authors' attempts to embody in their work certain cultural authorities' views about reading
- (C) A point about the educational value of reading books about history
- (D) An instance in which a particular judgment about the value of reading history is apparently presupposed
- (E) A challenge to an assumption about eighteenth-century women's reading habits

4. The author mentions the "widespread doubts" in order to

- (A) support a point about the scholarly merit of Hume's writings
- (B) contrast Hume's philosophical writing with his writing on historical subjects
- (C) suggest that Hanway did not understand the implicit controversy depicting her heroine as reading Hume
- (D) identify an ambiguity in Hanway's depiction of the philosopher in *The Northern Wanderer*
- (E) illustrate a point about a way eighteenth-century fiction sometimes represented historians

Passage 63

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.

1. 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 64

Hotter and more massive than the Sun, stars called "stragglers" are puzzling to astronomers because such rapidly burning stars would not be expected to persist in ancient star clusters.

Some researchers believe that the typical blue stragglers formed when two ancient, lower-mass stars collide and merge form more massive, hotter star. Peter Leonard theorizes alternatively that in low density globular clusters, where mergers between single stars occur too infrequently to account for the observed quantity of blue stragglers, these stragglers are created instead by a group of stars. He suggests that a pair of stars already orbiting each other presents a **larger target** for a third star or another pair. Once this new grouping forms, close encounters between the stars could prompt any two to merge as a blue straggler. Leonard's model predicts that each blue straggler has a distant orbiting companion—as appears true of many blue stragglers in the M67 cluster of the Milky Way galaxy.

1. The reference to a "**larger target**" serves primarily to suggest why a

- (A) blue straggler would be more likely to collide and merge with another star than would be a lower-mass star
- (B) pair of stars would be more likely to encounter other stars than would the typical blue straggler
- (C) pair of stars would be more likely to interact with other stars than would a single star
- (D) blue straggler would be more likely to interact with a pair of stars than it would with a third star
- (E) third star would be more likely to encounter a pair than it would to encounter a blue straggler

2. Information presented in the passage suggests which of the following about blue stragglers?

- (A) They originate from stars that are hotter and more massive than the Sun.
- (B) They are burning more rapidly than other types of stars observed in ancient star clusters.
- (C) They are older than most other types of stars within the same star cluster.
- (D) They are less numerous in low-density globular clusters than are pairs of stars.
- (E) They generally originate from the oldest stars among those found in ancient star clusters.

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

- (A) A discrepancy between the number of mergers between single stars in certain low-density globular clusters and that in other low-density globular clusters
- (B) A discrepancy between the heat and mass of blue stragglers formed by one type of

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

Passage 65

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 gyros—was stimulated by a magnetic field. Facility at both sets of tasks was impaired.

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

Passage 66

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

1. The purpose of the passage is to

- (A) analyze the events that contributed to an economic phenomenon
- (B) present different views on the nature and impact of an economic phenomenon
- (C) distinguish between the short-term and long-term effects of an economic phenomenon
- (D) challenge a dominant theory about how to solve the problems created by an economic phenomenon
- (E) present new evidence to suggest that an economic phenomenon is more complex than had previously been believed

2. Which of the following, if true, would most tend to weaken the deindustrialization thesis of Bluestone and Harrison?

- (A) a survey of the spouses of former industrial workers reveals a significant increase in the number of working spouses since the mid-1960s.
- (B) data from the most recent United States census show that fewer individuals list their occupation as industrial worker than in the census from ten years earlier.
- (C) a random survey of United States consumers indicates that a majority of those surveyed would prefer to buy United States-manufacturing goods if given the opportunity.
- (D) A recent study indicates that large numbers of former industrial workers have retrained and found employment as skilled, highly-paid computer workers.
- (E) Interviews with representatives at major agencies for temporary employment in the United States suggest that they value the skills of former industrial workers.

3. It can be inferred from the passage that the highlighted “critics” believe which of the following about “hourglass” effect?

- (A) It involves the relegation of industrial workers to less desirable jobs.
- (B) It requires that workers make short-term sacrifices to achieve long-term gains.
- (C) It affects non-unionized workers more strongly than it does unionized workers.
- (D) It represents an increase in unemployment for those in the service sector.

- (E) It threatens the status of the technological and financial elite.

Passage 67

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.

1. 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 68

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. 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

2. 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

Passage 69

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

1. The primary purpose of the passage is to

- (A) question the plausibility of one explanation sometimes offered for the dwarfing of certain species living on islands
- (B) argue that dwarfing of certain species living on islands occurred prior to the Pleistocene
- (C) cite evidence suggesting that dwarfing may have adverse consequences for some species living on islands
- (D) present some possible explanations for the dwarfing of certain species living on islands
- (E) contrast the effects of insular conditions on species with large body size and species with small body

2. According to the passage, which of the following statements about body size in mammals is true?

- (A) A large body is unfavorable to mammalian species' survival under most conditions.
- (B) A large body tends to benefit small mammals living on islands.
- (C) For most herbivorous mammals, a large body size is easier to sustain in the absence of large predators.
- (D) Under most conditions, a small body is less beneficial to herbivorous mammals than to nonherbivorous mammals.

(E) Among nonherbivorous mammals, a small body is more beneficial on an island than on a mainland.

Passage 70

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.

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

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

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

Passage 71

In February 1848 the people of Paris rose in revolt against the constitutional monarchy of Louis-Philippe. Despite the existence of excellent narrative accounts, the February Days, as this revolt is called, have been largely ignored by social historians of the past two decades. For each of the three other major insurrections in nineteenth-century Paris—July 1830, June 1848, and May 1871—there exists at least a sketch of participants' backgrounds and an analysis, more or less rigorous, of the reasons for the occurrence of the uprisings. Only in the case of the February Revolution do we lack a useful description of participants that might

characterize it in the light of what social history has taught us about the process of revolutionary mobilization.

Two reasons for this relative neglect seem obvious. First, the insurrection of February has been overshadowed by that of June. The February Revolution overthrew a regime, to be sure, but met with so little resistance that it failed to generate any real sense of historical drama. Its successor, on the other hand, appeared to pit key socioeconomic groups in a life-or-death struggle and was widely seen by contemporary observers as marking a historical departure. Through their interpretations, which exert a continuing influence on our understanding of the revolutionary process, the impact of the events of June has been magnified, while, as an unintended consequence, the significance of the February insurrection has been diminished. Second, like other “successful” insurrections, the events of February failed to generate the most desirable kinds of historical records. Although the June insurrection of 1848 and the Paris Commune of 1871 would be considered watersheds of nineteenth-century French history by any standard, they also present the social historian with a signal advantage: these failed insurrections created a mass of invaluable documentation as a by-product of authorities’ efforts to search out and punish the rebels.

Quite different is the outcome of successful insurrections like those of July 1830 and February 1848. Experiences are retold, but participants typically resume their daily routines without ever recording their activities. Those who played salient roles may become the objects of highly embellished verbal accounts or in rare cases, of celebratory articles in contemporary periodicals. And it is true that the publicly acknowledged leaders of an uprising frequently write memoirs. However, such documents are likely to be highly unreliable, unrepresentative, and unsystematically preserved, especially when compared to the detailed judicial dossiers prepared for everyone arrested following a failed insurrection. As a consequence, it may prove difficult or impossible to establish for a successful revolution a comprehensive and trustworthy picture of those who participated, or to answer even the most basic questions one might pose concerning the social origins of the insurgents.

1. With which of the following statements regarding revolution would the author most likely agree?

- (A) Revolutionary mobilization requires a great deal of planning by people representing disaffected groups.
- (B) The objectives of the February Revolution were more radical than those of the June insurrection.
- (C) The process of revolutionary mobilization varies greatly from one revolution to the next.
- (D) Revolutions vary greatly in the usefulness of the historical records that they produce.
- (E) As knowledge of the February Revolution increases, chances are good that its importance will eventually eclipse that of the June insurrection.

2. Which of the following is the most logical objection to the claim made in the last paragraph?

- (A) The February Revolution of 1848 is much less significant than the July insurrection of

1830.

- (B) The backgrounds and motivations of participants in the July insurrection of 1830 have been identified, however cursorily.
- (C) Even less is known about the July insurrection of 1830 than about the February Revolution of 1848.
- (D) Historical records made during the July insurrection of 1830 are less reliable than those made during the May insurrection of 1871.
- (E) The importance of the July insurrection of 1830 has been magnified at the expense of the significance of the February Revolution of 1848.

3. The purpose of the second paragraph is to explain why

- (A) the people of Paris revolted in February 1848 against the rule of Louis-Philippe
- (B) there exist excellent narrative accounts of the February Days
- (C) the February Revolution met with little resistance
- (D) a useful description of the participants in the February Revolution is lacking
- (E) the February Revolution failed to generate any real sense of historical drama

4. It can be inferred from the passage that the author considers which of the following essential for understanding a revolutionary mobilization?

- (A) A comprehensive theory of revolution that can be applied to the major insurrections of the nineteenth century
- (B) Awareness of the events necessary for a revolution to be successful
- (C) Access to narratives and memoirs written by eyewitnesses of a given revolution
- (D) The historical perspective provided by the passage of a considerable amount of time
- (E) Knowledge of the socioeconomic backgrounds of a revolution's participants

Passage 72

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 _____.

1. 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 73

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

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

1. The primary purpose of the passage is to

- (A) argue for the superiority of a style of art
- (B) consider the impact of an art movement
- (C) describe the political content of a certain works of art
- (D) detail the characteristic style of an art movement
- (E) place an art movement in its historical context

2. According to the passage, which of the following statements about the "cultural centers" is true?

- (A) They were the venue where many later leaders of the Chicano civil rights movement first became politically active.
- (B) Though later widespread, they originated in San Francisco area.
- (C) Springing up in a number of communities, they initially had largely apolitical goals centered on art instruction.
- (D) They constituted the nucleus from which the Chicano civil rights movement originated.

(E) Founded by artists, they provided support for the Chicano civil rights movement.

3. Which of the following best describes the relationship between the first paragraph and the second paragraph of the passage?

- (A) The first focuses on the mural artists as individuals; the second, on their actions as a group.
- (B) The first compares the mural revival with an earlier artistic movement; the second describes the context contemporary to the revival
- (C) The first defines the revival by distinguishing it from an earlier artistic movement; the second addresses the political goals of both the revival and its forerunner
- (D) The first presents an apparently plausible account of the relationship between the revival and its forerunner, the second calls that account into question
- (E) The first is concerned with the artistic aims and ambitions behind the San Francisco murals; the second considers their political significance

Passage 74

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

1. According to the passage, both Bulosan and Espiritu do which of the following in their work?

- (A) Consider generational differences in Filipino immigrants' responses to life in the United States
- (B) Attempt to make allowance for the demographic variations among Filipino immigrants to the United States
- (C) Employ fiction in addition to documenting actual life histories of Filipino immigrants to the United States
- (D) Represent how life in the United States has affected immigrants' sense of Filipino identity
- (E) Examine the effects on Filipinos in the United States of the 1934 American curb on Filipino immigration

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

- (A) in writing
- (B) by means of drawing

- (C) impressionistically
- (D) diagrammatically
- (E) vividly

Passage 75

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

1. Which of the following best describes the main idea of the passage?

- (A) Researchers have long disagreed about whether data collected in the 1950s indicate that chimpanzees and other apes experience an adolescent growth spurt.
- (B) Research data collected on chimpanzees living in captivity are inconclusive with respect to chimpanzees living in the wild.
- (C) The notion that apes do not experience an adolescent growth spurt has been confirmed by research conducted since.
- (D) Although the idea that apes experience an adolescent growth has received some support, most biologists remain unconvinced.
- (E) Although researchers agree that chimpanzees do not experience an adolescent growth spurt, they are divided in their opinions of whether this is true of other apes.

2. The passage mentions which of the following as one of the reasons why most biologists remain skeptical that chimpanzees experience a humanlike adolescent growth spurt?

- (A) Chimpanzees do not experience a demonstrable increase in growth rate until they are fully sexually mature.
- (B) The increase in growth rate that chimpanzees undergo at sexual maturity is less apparent than that of humans.
- (C) The increase in growth rate once regarded as a humanlike adolescent growth spurt in chimpanzees is too sporadic to be regarded as significant.
- (D) Not all chimpanzees undergo a calculable growth spurt.
- (E) Watt's approach to analyzing data is considered to be highly unorthodox.

3. The passage suggests which of the following about the adolescent growth spurt that takes place in humans?

- (A) Its primary effects are found in parts of the body other than the limbs.
- (B) It is generally completed by the time 77 percent of full skeletal growth is attained.
- (C) It is normally detectable without the assistance of sophisticated mathematical analysis.
- (D) The rate of growth is much faster at the beginning of puberty than at any other time.
- (E) The estimated growth rate varies depending on the methods of measurement that are used.

Passage 76

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_____.

1. 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 77

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. 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 **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

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

2. The passage implies which of the following about the explanation mentioned in the highlighted text?

- (A) There are empirical findings that conflict with a presumption of the explanation.
- (B) The explanation predicts that the effect of calorie restriction on longevity will be the greatest for the species with the highest rate of metabolism.
- (C) The explanation predicts that the effects of calorie restriction will be uniformly positive.

Passage 78

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

1. The passage is concerned with which of the following?

- (A) Determining the different ways in which current speeds can influence the nesting preferences of female river blennies
- (B) Establishing nest orientation as a determining factor in egg laying among female river blennies
- (C) Questioning the importance of nest size as an influence on egg laying among female river blennies
- (D) Comparing the features of female river blennies that face southeast with those of nests facing in other directions
- (E) Examining how female river blennies determine the relative importance of nest size versus nest orientation

2. The author of the passage considers “current speeds” in order to

- (A) identify a factor that undermines the significance of nest stone size for female river blennies
- (B) indicate one possible advantage of river blenny nests that do not face southeast
- (C) eliminate a possible explanation for a nest orientation tendency among female river blennies
- (D) indicate why female river blennies are sensitive to both size and orientation of possible nests
- (E) suggest a reason why many female blennies prefer southeast-facing nests

Passage 79

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

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

- (A) It explains why the fiction mentioned in the first sentence was not popular in the twentieth century.
- (B) It assists in drawing a contrast between nineteenth-century and twentieth-century critics.
- (C) It provides an example of how twentieth – century readers were taught to ignore certain literature.
- (D) It questions the usefulness of a particular distinction between Poe and Longfellow made by critics.
- (E) It explains why Poe's stories were more popular than Longfellow's verse during the nineteenth century.

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

- (A) carrying
- (B) transferring
- (C) granting
- (D) imparting
- (E) projecting

Passage 80

“Blues is for singing,” writes folk musicologist Paul Oliver, and “is not a form of folk song that stands up particularly well when written down.”

A poet who wants to write blues can attempt to avoid this problem by poeticizing the form—but literary blues tend to read like bad poetry rather than like refined folk song. For Oliver, the true spirit of the blues inevitably eludes the self-conscious imitator. However, Langston Hughes, the first writer to grapple with these difficulties of blue poetry, in fact succeeded in producing poems that capture the quality of genuine, performed blues while remaining effective as poems. In inventing blues poetry, Hughes solved two problems: first, how to write blues lyrics in such a way that they work on the printed page, and second, how to exploit the blues form poetically without losing all sense of authenticity. There are many styles of blues, but the distinction of importance to Hughes is between the genres referred to as “folk blues” and “classic blues.” Folk blues and classic blues are distinguished from one another by differences in performers (local talents versus touring professionals), patronage (local community versus mass audience), creation (improvised versus composed), and transmission (oral versus written). It has been a commonplace among critics that Hughes adopted the classic blues as the primary model for his blues poetry, and that he writes his best blues poetry when he tries least to imitate the folk blues. In this view, Hughes’ attempts to imitate the folk blues are too self-conscious, too determined to romanticize the African American experience, too intent on reproducing what he takes to be the quaint humor and naïve simplicity of the folk blues to be successful.

But a more realistic view is that by conveying his perceptions as a folk artist ought to—through an accumulation of details over the span of his blues oeuvre, rather than by overloading each poem with quaintness and naivety—Hughes made his most important contributions to the genre. His blues poems are in fact closer stylistically to the folk blues on which he modeled them than to the cultivated classic blues. Arnold Rampersad has observed that virtually all of the poems in the 1927 collection in which Hughes essentially originated blues poetry fall deliberately within the “range of utterance” of common folk. This surely applies to “Young Gal’s Blues,” in which Hughes avoids the conventionally “poetic” language and images that the subjects of death and love sometimes elicit in his ordinary lyric poetry. To see what Hughes’ blues poetry might have been like if he had truly adopted the classic blues as his model, one need only look to “Golden Brown Blues,” a song lyric Hughes wrote for composer W.C. Handy. Its images, allusions, and diction are conspicuously remote from the common “range of utterance.”

1. The primary purpose of the passage is to

- (A) describe the influence of folk and classic blues on blues poetry
- (B) analyze the effect of African American culture on blues poetry
- (C) demonstrate that the language used in Hughes’ blues poetry is colloquial
- (D) defend Hughes’ blues poetry against criticism that it is derivative
- (E) refute an accepted view of Hughes’ blues poetry style

2. The author of the passage uses the highlighted quotation primarily to

- (A) indicate how blues poetry should be performed
- (B) highlight the difficulties faced by writers of blues poetry
- (C) support the idea that blues poetry is a genre doomed to fail
- (D) illustrate the obstacles that blues poetry is unable to overcome
- (E) suggest that written forms of blues are less authentic than sung blues

3. It can be inferred from the passage that, as compared with the language of “Golden Brown Blues,” the language of “Young Gal’s Blues” is

- (A) more colloquial
- (B) more melodious
- (C) marked by more allusions
- (D) characterized by more conventional imagery
- (E) more typical of classic blues song lyrics

4. According to the passage, Hughes’ blues poetry and classic blues are similar in which of the following ways?

- (A) Both are improvised
- (B) Both are written down
- (C) Both are intended for the same audience
- (D) Neither uses colloquial language
- (E) Neither is professionally performed

Passage 81

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.

1. 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 82

Analyzing levels of proportional representation of American Indians in state and local government jobs is important for several reasons. First, the basic idea underlying the theory of representative bureaucracy is that the demographic composition of bureaucracy should mirror the demographic composition of the general public. This is because in addition to its symbolic value, increased access to managerial position may lead to greater responsiveness on the part of policy makers to the policy interests of traditionally disadvantaged groups such as American Indians. Second, the focus on higher-level jobs in bureaucracies (as opposed to non-managerial positions) is especially important because managerial positions represent a major source of economic progress for members of traditionally disadvantaged groups, as these jobs confer good salaries, benefits, status, security, and mobility. Third, it is important to know if there has been growth in the American Indian share of more desirable public-sector positions over the last two decades. For instance, Peterson and Duncan argue that the population and power of American Indians have been growing in certain states. Peterson and Duncan also suggest that this growth may reflect the possibility that American Indian population are becoming more active in nontraditional areas of politics, assimilating into mainstream culture, and securing with greater frequency leadership positions in non-tribal government.

1. The primary purpose of the passage is to

- (A) summarize a demographic trend over time
- (B) present findings on a demographic group
- (C) analyze the demographic composition of a type of job
- (D) explain the need for particular social research
- (E) argue for the implementation of a social policy

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

- (A) It hypothesizes a phenomenon that might explain a point made in the preceding sentence.
- (B) It provides evidence that undermines that assertion made in the first sentence.
- (C) It offers a projection regarding the development of a trend mentioned earlier in the passage.
- (D) It presents an interpretation of a discrepancy noted earlier in the passage.
- (E) It proposed an implementation of a policy mentioned in the preceding sentence.

3. The passage suggests which of the following regarding “access to managerial positions” for disadvantaged groups?

- (A) This access is only significant when the percentage of disadvantaged group members in managerial positions mirrors the percent of that group in the general public.
- (B) This access is largely the result of policy decisions made response to interest of those groups.
- (C) This access has meaning apart from any policy benefits it confers on those groups.
- (D) This access often creates increased access to non-managerial position for those groups.

- (E) The extent of this access tends to be similar across different disadvantaged groups.

Passage 83

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

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

- (A) It identifies a factor that complicates biologists' ability to draw conclusions about the behavior of cetaceans in their natural environments.
- (B) It illustrates the kind of deduction mentioned in the preceding sentence.
- (C) It explains why skeptics have remained unpersuaded by evidence that has been put forward in support of the claim that cetaceans have culture.
- (D) It introduces a claim that would be dismissed by both supporters and opponents of the view that cetaceans have culture.
- (E) It notes a previously overlooked factor that might shed light on the question of whether cetaceans have culture.

2. The passage suggests which of the following about captive cetaceans?

- (A) Whether they are engaged in social learning is a subject of disagreement among biologists.
- (B) Their ability to imitate new behaviors is more extensive than that of noncaptive cetaceans.
- (C) They exhibit few behaviors that have not also been observed in cetaceans in their natural habitats.
- (D) They appear to adopt new behaviors more quickly than noncaptive cetaceans.
- (E) They exhibit tendencies that suggest a capacity for the kind of behavior that qualifies as cultural.

Passage 84

Some archaeologists speculate that the America 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

- (A) presenting 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 that 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 then they are now.
- (C) Australia was less densely populated at that time than was the region that is now the United States.
- (D) Australia's climate was significantly drier than it is now.
- (E) Global sea level was lower than it is now.

3. The author of the passage implies that, in what is now the United States, archaeological evidence of inhabitation in the period from 40,000 to 25,000 years ago is lacking because that region is

- (A) had its oldest habitation sites inundated following a postglacial rise in sea level
- (B) has many resource-rich rivers that facilitated the dispersal of early inhabitants from an initial concentration in coastal areas
- (C) was sparsely populated until about 25,000 years ago
- (D) was colonized less than 25,000 years ago
- (E) was inhabited only by hunter-gatherers until 25,000 years ago

Passage 85

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.

1. 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.

Passage 86

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 admiral quality.

(C) Certain scholars argue that Austen's novels do not accurately reflect cultural changes during Austen's lifetime that changed the way gentlemen dressed and behaved.

(D) After 1980, scholarship on Austen shifted toward a greater emphasis on the historical context in which she wrote.

(E) With few exceptions, recent scholarship depicts Austen as a writer who had little interest in the tumultuous events of her time.

Passage 87

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

Examples of such human impact from 4,000 years ago would be small-scale, however, since the broad ecosystem changes brought about by the widespread adoption of agricultural technologies occurred later.

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

(A) It provides an example of the kind of problems that often complicate investigations into environmental change.

(B) It call into question the reliability of the established dates for later Holocene agricultural development.

(C) It describes the nature of localized agricultural developments during the later Holocene.

(D) It outlines a hypothesis that draws on evidence discussed earlier in the passage.

(E) It limits the scope of a particular complication mentioned earlier in the passage.

2. According to the passage, which of the following is true regarding environmental changes 4,000 years ago?

(A) No localized increases in grass pollen were caused by agricultural development.

(B) Increases in grass pollen were at least sometimes a reflection of an increase in aridity.

(C) Wholesale ecosystem changes probably resulted from agricultural development.

(D) Any small-scale changes occurring then would not be detectable now.

(E) Environmental change helped induce the adoption of agricultural technologies.

Passage 88

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

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

1. The author of the passage suggests that Mary McCarthy's writing is characterized by

- ☐ A the use in her essays of devices more typical in works of fiction
- ☐ B a narrowing of the differences between narrative and expository prose
- ☐ C careful attention to factual accuracy.

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

- (A) prolific
- (B) sophistic
- (C) rambling
- (D) analytical
- (E) circuitous

Passage 89

Although, recent years have seen substantial reductions in noxious pollutants from individual motor vehicles, the number of such vehicles has been steadily increasing, consequently, more than 100 cities in the United States still have levels of carbon monoxide, particulate matter, and ozone (generated by photochemical reactions with hydrocarbons from vehicle exhaust) that exceed legally established limits. There is a growing realization that the only effective way to achieve further reductions in vehicle emissions—short of a massive shift away from the private automobile—is to replace conventional diesel fuel and gasoline with cleaner-burning fuels such as compressed natural gas, liquefied petroleum gas, ethanol, or methanol.

All of these alternatives are carbon-based fuels whose molecules are smaller and simpler than those of gasoline. These molecules burn more cleanly than gasoline, in part because they have fewer, if any, carbon-carbon bonds, and the hydrocarbons they do emit are less likely to generate ozone. The combustion of larger molecules, which have multiple carbon-carbon bonds, involves a more complex series of reactions. These reactions increase the probability of incomplete combustion and are more likely to release uncombusted and photochemically active hydrocarbon compounds into the atmosphere. On the other hand, alternative fuels do have drawbacks. Compressed natural gas would require that vehicles have a set of heavy fuel tanks—

a serious liability in terms of performance and fuel efficiency—and liquefied petroleum gas faces fundamental limits on supply.

Ethanol and methanol, on the other hand, have important advantages over other carbon-based alternative fuels: they have a higher energy content per volume and would require minimal changes in the existing network for distributing motor fuel. Ethanol is commonly used as a gasoline supplement, but it is currently about twice as expensive as methanol, the low cost of which is one of its attractive features. Methanol's most attractive feature, however, is that it can reduce by about 90 percent the vehicle emissions that form ozone, the most serious urban air pollutant.

Like any alternative fuel, methanol has its critics. Yet much of the criticism is based on the use of "gasoline clone" vehicles that do not incorporate even the simplest design improvements that are made possible with the use of methanol. It is true, for example, that a given volume of methanol provides only about one-half of the energy that gasoline and diesel fuel do; other things being equal, the fuel tank would have to be somewhat larger and heavier. However, since methanol-fueled vehicles could be designed to be much more efficient than "gasoline clone" vehicles fueled with methanol, they would need comparatively less fuel. Vehicles incorporating only the simplest of the engine improvements that methanol makes feasible would still contribute to an immediate lessening of urban air pollution.

1. According to the passage, incomplete combustion is more likely to occur with gasoline than with an alternative fuel because

- (A) the combustion of gasoline releases photochemically active hydrocarbons
- (B) the combustion of gasoline involves an intricate series of reactions
- (C) gasoline molecules have a simple molecular structure
- (D) gasoline is composed of small molecules.
- (E) gasoline is a carbon-based fuel

2. Which of the following most closely parallels the situation described in the first sentence of the passage?

- (A) Although a town reduces its public services in order to avoid a tax increase, the town's tax rate exceeds that of other towns in the surrounding area.
- (B) Although a state passes strict laws to limit the type of toxic material that can be disposed of in public landfills, illegal dumping continues to increase.
- (C) Although a town's citizens reduce their individual use of water, the town's water supplies continue to dwindle because of a steady increase in the total population of the town.
- (D) Although a country attempts to increase the sale of domestic goods by adding a tax to the price of imported goods, the sale of imported goods within the country continues to increase.
- (E) Although a country reduces the speed limit on its national highways, the number of fatalities caused by automobile accidents continues to increase.

3. It can be inferred from the passage that a vehicle specifically designed to use methanol for fuel would

- (A) be somewhat lighter in total body weight than a conventional vehicle fueled with gasoline
- (B) be more expensive to operate than a conventional vehicle fueled with gasoline
- (C) have a larger and more powerful engine than a conventional vehicle fueled with gasoline
- (D) have a larger and heavier fuel tank than a “gasoline clone” vehicle fueled with methanol
- (E) average more miles per gallon than a “gasoline clone” vehicle fueled with methanol

4. The passage suggests which of the following about air pollution?

- (A) Further attempts to reduce emissions from gasoline-fueled vehicles will not help lower urban air-pollution levels.
- (B) Attempts to reduce the pollutants that an individual gasoline-fueled vehicle emits have been largely unsuccessful.
- (C) Few serious attempts have been made to reduce the amount of pollutants emitted by gasoline-fueled vehicles.
- (D) Pollutants emitted by gasoline-fueled vehicles are not the most critical source of urban air pollution.
- (E) Reductions in pollutants emitted by individual vehicles have been offset by increases in pollution from sources other than gasoline-fueled vehicles.

Passage 90

In mountainous regions, the timberline is the highest altitude at which trees grow. In the Rocky Mountains, the current timberlines are 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 colder now than it was 10,000 years ago.

1. Which of the following is an assumption on which the argument relies?

- (A) In the past 10,000 years, the only trees to have grown above today's timberline are the trees whose fossilized remains have been found.
- (B) No trees grew 10,000 years ago at altitudes higher than the ones at which fossilized tree remains have been found.
- (C) The fossils are not of species of trees that were able to tolerate cooler growing temperatures than are the species that currently grow near the timberline.
- (D) The Rocky Mountains have not eroded significantly over the past 10,000 years.
- (E) The climate of the Rocky Mountains has never been significantly changed during the lifetime of the trees whose fossilized remains have been found.

Passage 91

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 spinning “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 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.

3. 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.

Passage 92

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

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

1. It can be inferred that the author of the passage would be likely to agree with which of the following statements about Phelps' writing?

- ☐ A While Phelps' earlier works did a great deal toward legitimizing the figure of the American woman doctor, her novel *Doctor Zay* did not.
- ☐ B Critics have tended to underestimate the impact Phelps' earlier work had in helping to legitimize the figure of the American woman doctor during an important period.
- ☐ C The substantial increase in the number of woman doctors in post-Civil War America was a more significant factor than was Phelps' writing in helping to legitimize woman doctors in post-Civil War America.

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

2. The passage provides information on which of the following?

- ☐ A The public response to the emergence of women doctors during Phelps' lifetime
- ☐ B How Phelps' earlier works advanced the cause of American women doctors
- ☐ C The relative fame of *Doctor Zay* in comparison with Phelps' other writings

Passage 93

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

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

2. According to the author, factors of potential importance to human communities on islands include

- (A) the accessibility of the sea’s resources
- (B) a diet superior in some respects to the diet of landlocked communities
- (C) nonbiological resources that can be exploited

3. The author suggests that in considering the biodiversity of islands, Evans

- (A) focuses too exclusively on terrestrial resources
- (B) misunderstands the relationship between an island’s size and its terrestrial resources
- (C) misinterprets the work of MacArthur and Wilson
- (D) is wrong to assume that more remote islands support fewer species
- (E) downplays the ways that human communities adapt to island biodiversity

Passage 94

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.

1. 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 95

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

1. Which of the following, if true, provides the strongest support for Scott's argument?

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

2. It can be inferred from the passage that in the view of Greasley and Oxley

- (A) a reduced workweek was ultimately beneficial to employees
- (B) the economic effects of the reduction in working hours in 1919 were brief
- (C) Britain became less economically competitive in the 1920s
- (D) reduced working hours were the primary cause of the economic changes observed by Dowie
- (E) the changes in economic performance in Britain in the 1920s were unforeseen

Passage 96

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.

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 working of birds.
- ☐ C It contributes to the structural soundness of birds.

2. The author implies which of the following about the "underlying body parts" of nonhuman mammals?

- (A) They are more similar to humans' underlying body parts than most people assume.
- (B) They are more predictable in their workings than are the underlying body parts of humans.
- (C) Their smooth and graceful actions belie how complicated they actually are.
- (D) They work in much different ways than do the underlying body parts of most birds.
- (E) They are easier to observe and understand than are underlying parts of birds.

Passage 97

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) Situate 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

Passage 98

"Blues is for singing," writes folk musicologist Paul Oliver, and "is not a form of folk song that stands up particularly well when written down." A poet who wants to write blues can attempt to avoid this problem by poeticizing the form—but literary blues tend to read like bad poetry rather than like refined folk song. For Oliver, the true spirit of the blues inevitably eludes the self-conscious imitator. However, Langston Hughes, the first writer to grapple with these difficulties of blue poetry, in fact succeeded in producing poems that capture the quality of genuine, performed blues while remaining effective as poems. In inventing blues poetry, Hughes solved two problems: first, how to write blues lyrics in such a way that they work on the printed page, and second, how to exploit the blues form poetically without losing all sense of authenticity. There are many styles of blues, but the distinction of importance to Hughes is between the genres referred to as "folk blues" and "classic blues." Folk blues and classic blues are distinguished from one another by differences in performers (local talents versus touring professionals), patronage (local community versus mass audience), creation (improvised versus composed), and transmission (oral versus written). It has been a commonplace among critics that Hughes adopted the classic blues as the primary model for his blues poetry, and that he writes his best blues poetry when he tries least to imitate the folk blues. In this view, Hughes' attempts to imitate the folk blues are too self-conscious, too determined to romanticize the African American experience, too intent on reproducing what he takes to be the quaint humor and naïve simplicity of the folk blues to be successful.

But a more realistic view is that by conveying his perceptions as a folk artist ought to—through an accumulation of details over the span of his blues oeuvre, rather than by overloading each poem with quaintness and naivety—Hughes made his most important contributions to the genre. His blues poems are in fact closer stylistically to the folk blues on which he modeled them than to the cultivated classic blues. Arnold Rampersad has observed that virtually all of the poems in the 1927 collection in which Hughes essentially originated

blues poetry fall deliberately within the “range of utterance” of common folk. This surely applies to “Young Gal’s Blues,” in which Hughes avoids the conventionally “poetic” language and images that the subjects of death and love sometimes elicit in his ordinary lyric poetry. To see what Hughes’ blues poetry might have been like if he had truly adopted the classic blues as his model, one need only look to “Golden Brown Blues,” a song lyric Hughes wrote for composer W.C. Handy. Its images, allusions, and diction are conspicuously remote from the common “range of utterance.”

1. The primary purpose of the passage is to

- (A) describe the influence of folk and classic blues on blues poetry
- (B) analyze the effect of African American culture on blues poetry
- (C) demonstrate that the language used in Hughes’ blues poetry is colloquial
- (D) defend Hughes’ blues poetry against criticism that it is derivative
- (E) refute an accepted view of Hughes’ blues poetry style

2. The author of the passage uses the highlighted quotation primarily to

- (A) indicate how blues poetry should be performed
- (B) highlight the difficulties faced by writers of blues poetry
- (C) support the idea that blues poetry is a genre doomed to fail
- (D) illustrate the obstacles that blues poetry is unable to overcome
- (E) suggest that written forms of blues are less authentic than sung blues

3. It can be inferred from the passage that, as compared with the language of “Golden Brown Blues,” the language of “Young Gal’s Blues” is

- (A) more colloquial
- (B) more melodious
- (C) marked by more allusions
- (D) characterized by more conventional imagery
- (E) more typical of classic blues song lyrics

4. According to the passage, Hughes’ blues poetry and classic blues are similar in which of the following ways?

- (A) Both are improvised
- (B) Both are written down
- (C) Both are intended for the same audience
- (D) Neither uses colloquial language
- (E) Neither is professionally performed

Passage 99

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 _____.

1. 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 100

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 than many

2. The author of the passage mentions the "continuum" in order to

- (A) point out a relationship between plate tectonics and the nineteenth-century geology
- (B) explain how a theory of Newton's could influence geology and plate tectonic theory.
- (C) distinguish between two sources of energy that contributed to the development of Earth's surface.
- (D) point out a similarity between the surface of impactors and the surface of Earth.
- (E) identify a feature of Shaw's view that deviate from current scientific theories.

3. The passage suggests which of the following about tectonic theory?

- (A) It has led scientists to overlook an important contribution to classical geologists from Newton.
- (B) It has been more successful than was classical geology in accounting for heat loss from.
- (C) It is based on premise about Earth's processes discerned in Newton's thought.
- (D) It has correctly explained the effects of extraterrestrial impactors on Earth's surface.

- (E) It corrects a fundamental flaw in classical geology.

Passage 101

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

1. The primary purpose of the passage is to

- (A) question the plausibility of one explanation sometimes offered for the dwarfing of certain species living on islands
- (B) argue that dwarfing of certain species living on islands occurred prior to the Pleistocene
- (C) cite evidence suggesting that dwarfing may have adverse consequences for some species living on islands
- (D) present some possible explanations for the dwarfing of certain species living on islands
- (E) contrast the effects of insular conditions on species with large body size and species with small body

2. According to the passage, which of the following statements about body size in mammals is true?

- (A) A large body is unfavorable to mammalian species' survival under most conditions.
- (B) A large body tends to benefit small mammals living on islands.
- (C) For most herbivorous mammals, a large body size is easier to sustain in the absence of large predators.
- (D) Under most conditions, a small body is less beneficial to herbivorous mammals than to nonherbivorous mammals.
- (E) Among nonherbivorous mammals, a small body is more beneficial on an island than on a mainland.

Passage 102

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

1. The purpose of the passage is to

- (A) analyze the events that contributed to an economic phenomenon
- (B) present different views on the nature and impact of an economic phenomenon
- (C) distinguish between the short-term and long-term effects of an economic phenomenon
- (D) challenge a dominant theory about how to solve the problems created by an economic phenomenon
- (E) present new evidence to suggest that an economic phenomenon is more complex than had previously been believed

2. Which of the following, if true, would most tend to weaken the deindustrialization thesis of Bluestone and Harrison?

- (A) a survey of the spouses of former industrial workers reveals a significant increase in the number of working spouses since the mid-1960s.
- (B) data from the most recent United States census show that fewer individuals list their occupation as industrial worker than in the census from ten years earlier.
- (C) a random survey of United States consumers indicates that a majority of those surveyed would prefer to buy United States-manufacturing goods if given the opportunity.
- (D) A recent study indicates that large numbers of former industrial workers have retrained and found employment as skilled, highly-paid computer workers.
- (E) Interviews with representatives at major agencies for temporary employment in the United States suggest that they value the skills of former industrial workers.

3. It can be inferred from the passage that the highlighted “critics” believe which of the following about “hourglass” effect?

- (A) It involves the relegation of industrial workers to less desirable jobs.
- (B) It requires that workers make short-term sacrifices to achieve long-term gains.

- (C) It affects non-unionized workers more strongly than it does unionized workers.
- (D) It represents an increase in unemployment for those in the service sector.
- (E) It threatens the status of the technological and financial elite.

Passage 103

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.

1. 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 104

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

1. According to the passage, which of the following resulted from the arrival of the Recent Indians?

- (A) The Dorset Paleo-Eskimos were forced to compete with the Recent Indians for a limited supply of seals.
- (B) The Dorset Paleo-Eskimos spent more time harvesting seals than they had in the past.
- (C) The Dorset Paleo-Eskimos increased the amount of labor and time devoted to defending

their territory.

- (D) The Dorset Paleo-Eskimos began to adopt new subsistence strategies they learned from the Recent Indians.
- (E) The previously steady growth of the Dorset Paleo-Eskimo population came to a halt.

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

- (A) It points out a flaw in a theory discussed earlier in the passage.
- (B) It demonstrates the need for additional research on a phenomenon mentioned earlier in the passage.
- (C) It underscores the importance of a trait mentioned earlier in the passage.
- (D) It supports an assertion made earlier in the passage.
- (E) It questions the evidence for a tradition mentioned earlier in the passage.

Passage 105

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.

1. The passage indicates which of the following about founder mutations?

- (A) Carriers of founder mutation may receive certain benefits from the mutated gene.
- (B) People who inherit founder mutations from both parents can become ill as a result.
- (C) Founder mutations are less likely than other mutations to be passed to offspring.

2. The author of the passage mentions the “hereditary hemochromatosis mutation” primarily in order to illustrate

- (A) the circumstances under which a founder mutation fails to cause a disease.
- (B) how difficult it is to predict the effects of founder mutations on carriers.
- (C) the difference between harmful founder mutation and those that are beneficial.
- (D) how a single copy of a founder mutation can benefit a carrier.
- (E) a challenge to a particular theory about the transmission of founder mutations.

Passage 106

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 insufficiently
- (B) appreciated for their role in women's public life properly
- (C) assigned to the "private" sphere
- (D) a means of altering the political structure
- (E) historically atypical for women in Western society

2. The passage implies that Lynch would agree that formal political participation

- (A) was increasingly important as the nineteenth century progressed
- (B) was an underreported phenomenon among women in nineteenth century Europe within civil society
- (C) is crucial to helping individuals form community ties
- (D) is a significant component of public life
- (E) is indicative of a kind of shadow citizenship

Passage 107

Based on evidence from tree rings, pollen samples and other records, scientists have for a long time assumed that interglacials—warm interludes between ice ages---were as mild and uniform as the Holocene, the present interglacial, has been for all of its 8,000 to 10,000 years. But new research in Greenland has put this assumption into question.

Researchers on two teams, the Greenland Ice-Core Project (GRIP) and the Greenland Ice Sheet Project 2 (GISP2), have analyzed two different cylinders of ice, each about two miles in depth, pulled up from the Greenland ice sheet. Such ice cores trap gases, bits of dust, and other chemicals that were present in the snow that fell over Greenland for thousands of years and then became compressed into ice. By studying these components, scientists have obtained a detailed archive of many aspects of climate, including air temperatures, snowfall, and concentrations of greenhouse gases in the atmosphere.

Findings from the upper sections of the cores have confirmed what scientists already knew climate during the last ice age fluctuated rapidly. But scientists were astonished by findings from the lower sections of the GRIP core, which provided a close look at an interglacial period other than our own, the Eemian interglacial, a period that lasted from 135,000 to 115,000 years ago. Data from GRIP seem to indicate that the Eemian climate swung at least as wildly as the climate of ice age periods.

Researchers' clues to the Eemian climate come from measurements of the ratios of two slightly different types of oxygen, isotopes oxygen-16 and oxygen-18, preserved in the GRIP core. These ratios register the fluctuations of air temperatures over the seasons and years. When the air was warm, vapor containing the heavier isotope, oxygen-18, condensed and formed precipitation, in the form of snow, more readily than did vapor containing oxygen-16. Thus, snow that fell during warmer periods contains proportionally more oxygen-18 than snow deposited during cold spells. Evidence of rapid climate shifts was also drawn from other sources, such as measurements of amounts of dust and calcium ions in the ice layers during cold periods: winds were strong, causing calcium-rich dust from loess deposits, which are composed of loose surface sediment, to blow across the ice sheet. Thus, differing amounts of dust in the layers also indicate changing climatic conditions.

However, finds from the lower section of GISP 2 do not confirm those of GRIP. The wild climate swings shown by GRIP in the last interglacial are not seen in the GISP2 core. According to a GISP 2 scientist, the weight of flowing glacial ice above has stressed the lower sections of both cores. This may have deformed the lower ice, disrupting its annual layers and thereby causing the discrepancy between the records. Still, some climatologists believe GRIP's record may be the more reliable of the two. It was drilled closer to a location called the ice divide, where stresses would have been lower, they say.

1. The passage is primarily concerned with

- (A) refuting certain scientific theories about Earth's climatic history

- (B) outlining new findings concerning Earth's climate during ice ages
- (C) discussing new research that may challenge a long-held scientific assumption about Earth's climatic history
- (D) describing the climatic changes that occurred when Earth moved from an ice age into an interglacial period
- (E) reconciling conflicting evidence concerning climatic changes.

2. Which of the following describes research that is most clearly analogous to the testing done by GRIP scientists?

- (A) Scientists studying the formation of the Sahara desert measure the rate of topsoil erosion in the region
- (B) Scientists seeking to determine the age of a particular fossil measure the percentage of its carbon atoms that have decayed
- (C) Scientists researching vision in flies measure and compare the amounts of vitamin A found in the retinas of several fly species.
- (D) Scientists investigating the development of life on Earth measure and compare the amount of oxygen used by various organisms along the evolutionary scale.
- E. Scientists plotting the fluctuations in rainfall in the early rain forests measure the presence of certain gases trapped in tree rings of older trees.

3. According to the passage, which of the following is the most accurate statement of what scientists believed, prior to the GRIP findings, about Earth's climate?

- (A) Over the course of Earth's history, interglacials have become progressively milder
- (B) Earth's overall climate has been generally mild since the planet's formation During
- (C) both interglacials and ice ages, Earth's climate has fluctuated violently.
- (D) During ice ages, Earth's climate has been highly variable, whereas during interglacials it has been mild and stable.
- (E) During interglacials, Earth's climate has been highly variable, whereas during ice ages it has been uniformly cold and icy.

4. The passage suggests that which of the following is most likely to have been true of the oxygen-16 and oxygen-18 isotopes found in the lower sections of the GRIP core?

- (A) There was significantly more isotope oxygen-18 than isotope oxygen-16 in the ice layers.
- (B) There was significantly more isotope oxygen-16 than isotope oxygen-18 in the ice layers.
- (C) Ratios of isotopes oxygen-18 and oxygen-16 varied in the ice layers.
- (D) Layers containing isotope oxygen-18 placed stress on the layers containing isotope oxygen-16, possibly distorting them.
- (E) Isotope oxygen-16, being lighter, was located mainly in the upper layers, whereas oxygen-18 had settled into the lower layers.

Passage 108

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 of does she ever enjoy movies that have been widely derided, it follows that she never enjoys movies on airplanes.

1. Which of the following, if true, would enable the conclusion of the argument to be properly drawn?

- (A) The only place where Consuelo enjoys widely recommended movies is a movie theater.
- (B) Widely recommended movies are never shown on airplane.
- (C) If a movie shown on an airplane is not widely derided, then it is invariably widely recommended.
- (D) If the picture quality of the movies shown on airplanes was better, Consuelo would enjoy the widely recommended movies.
- (E) Some movies are neither widely recommended nor widely derided.

Passage 109

Some archaeologists speculate that the America 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 State, 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

- (A) presenting 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 that which of the following about 25,000 years ago?

- (A) The coastline of the region that is now the United States is longer than it was 40,000 years ago.
- (B) Rivers in what is now the United States were numerous than they are now.
- (C) Australia was less densely populated at that time than was the region that is now the United States.
- (D) Australia's climate was significantly drier than it is now.
- (E) Global sea level was lower than it is now.

3. The author of the passage implies that, in what is now the United States, archaeological evidence of inhabitation in the period from 40,000 to 25,000 years ago is lacking because that region is

- (A) had its oldest habitation sites inundated following a postglacial rise in sea level
- (B) has many resource-rich rivers that facilitated the dispersal of early inhabitants from an initial concentration in coastal areas
- (C) was sparsely populated until about 25,000 years ago
- (D) was colonized less than 25,000 years ago
- (E) was inhabited only by hunter-gatherers until 25,000 years ago

Passage 110

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

1. In the highlighted portion of the passage, the author assumes that

- (A) consumers' attitude toward the assortment of choices they are presented with depends almost exclusively on the size of the range
- (B) consumers who have clear preferences make their choices more quickly than those whose preferences are relatively vague
- (C) consumers' anticipation of meeting specific expectations directly affects their satisfaction with a selected option
- (D) consumers presented with an assortment of choices often adjust the preferences they had beforehand
- (E) consumers presented with a larger assortment of choices often make their decisions too quickly

2. Which of the following best describes the function of the first sentence in the author's argument as a whole?

- (A) It states a premise on which the author's conclusion is based
- (B) It provides information to support the inference made in the following sentence
- (C) It introduces a concept that the author proves is illogical
- (D) It summarizes a position that the author proceeds to dispute
- (E) It presents the phenomenon the argument is intended to explain

Passage 111

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

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

1. Select the sentence that suggests a possible reason why Hurston wrote the version of *Mules and Men* that was published in 1935.

2. The passage suggests that Hurston may have done which of the following in preparing her original version?

- (A) Discussed her mode of presentation with her publisher before writing the first draft, in order to reduce the possibility of misunderstanding.
- (B) Shortened her presentation of the stories to the bare minimum in order to be able to present more folklore material.
- (C) Put it aside for several decades in order to maximize its potential audience when it was published
- (D) Reluctantly agreed to reshape it in order to take out various elements with which her publisher had been dissatisfied.
- (E) Chose not to include editorial commentary, in order to present the stories on their own terms.

3. Replacement of the word “**present**” with which of the following results in the least change in meaning for the passage?

- (A) hand over
- (B) donate
- (C) offer
- (D) propose
- (E) submit

Passage 112

In the shadow 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 Jeffery 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.

1. 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 Jeffery pines started growing in the lake bed.

Passage 113

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

1. The passage supplies information for answering which of the following questions?

- (A) Do invertebrate predators with full mobility address nutrient needs in the same fashion as sit-and-wait invertebrate predators with limited mobility?
- (B) Why would there be a considerable variation in nutrient composition within prey of a given species?
- (C) Is all of the nutrient content of invertebrate prey contained in the dry mass?
- (D) What would a wolf spider do if a fly it was eating contained a higher proportion of a certain nutrient than was present in the spider's recent prey?
- (E) How is a wolf spider able to determine that some prey it is eating contains a higher proportion of a nutrient that was deficient in the previous prey?

2. Which of the following best describes the organization of the passage as a whole?

- (A) A phenomenon is described, and an interpretation is offered.
- (B) A claim is made, and the corroborating evidence is evaluated.
- (C) A hypothesis is presented and undermined by recent findings.
- (D) A contrast is noted and shown to be specious based on recent findings.
- (E) A series of assumptions is presented and shown to be based on sound reasoning.

Passage 114

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

1. The author of the passage implies which of the following about the release of water from glacial Lake Agassiz?

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

2. The passage is primarily concerned with

- (A) presenting evidence that undermines an explanation
- (B) explaining the nature of a climatological phenomenon

- (C) questioning the timing of a particular event
- (D) discussing a new explanation for a phenomenon
- (E) suggesting revisions to a popular theory

Passage 115

In the early twentieth century, small magazines and the innovative graphics used on them created the face of the avant-guard. 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-guard artists exclusively for the avant-guard (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-guardists to see with fresh eyes untried possibilities for arranging and relating words and images on paper.

1. According to the passage, the primary purpose of conventional graphic design is to

- (A) render unpopular ideas palatable to a wider audience
- (B) capture readers' attention with bold fonts
- (C) communicate nonsensical notions to a wide public
- (D) communicate ideas as efficiently and unambiguously as possible
- (E) introduce previously unknown ideas to the general public

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

2. According to the passage, avant-guard artists of the early twentieth-century created ambiguous or nonsensical graphics as part of an attempt to

- (A) expand the potential for expression through visual art
- (B) compete with advertisements for reader's attention
- (C) encourage the expansion of small magazines

Passage 116

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

1. The primary purpose of the passage is to

- (A) discuss issues relating to a form of political organization by raising doubts about the terminology used to refer to it
- (B) trace changes in a form of political organization by examining the evolution of the terminology used to refer to it
- (C) justify the continued use of an established term for an evolving form of political organization
- (D) question the accuracy of a new term for a form of political organization
- (E) compare two terms for a form of political organization

2. The author of the passage quotes Urban and Sherzer most probably in order to

- (A) introduce a discussion of the legal ramifications of expanding the nation-state concept
- (B) summarize a claim about one possible effect of asserting cultural differences within a state
- (C) shift the focus of discussion from internal threats that states face to external threats that they face
- (D) point out similarities between the threats to states seen by Urban and Sherzer and those seen by Hill
- (E) describe one way an ethnocentric practice has affected attempts to assert cultural differences within a state

3. According to the passage, Hill and Spicer define nations as which of the following?

- (A) coalitions of distinct ethnic groups with similar concerns
- (B) Distinct ethnic groups
- (C) Culturally homogeneous states
- (D) Linguistically diverse states
- (E) Territorially bounded states

Passage 117

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

1. It can be inferred from the passage that men’s and women’s parades were similar in that both

- (A) were employed as rhetorical vehicles for social change
- (B) were regarded as violating contemporary standards of public decorum
- (C) made participants vulnerable to organized opposition
- (D) were largely ineffective as forms of protest
- (E) were intended by their participants as public declarations of solidarity

2. The passage suggests which of the following about proponents of the “rules of social order?”

- (A) They frowned upon public displays such as parades.
- (B) They had ulterior motives for objecting to women’s participation in suffrage parades.
- (C) They formed the core of the organized opposition to women suffrage.
- (D) They believed that it was unfeminine for women to march in suffrage parades.
- (E) They supported women’s rights to vote but disapprove some of the methods that suffragists employed to gain that right.

Passage 118

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

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

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

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

3. In the passage, the mention of "Alabama, Arkansas, Mississippi, and Tennessee" serves primarily to

- (A) suggest that some states were better than others at anticipating postwar economic needs
- (B) identify evidence used to support a view held by scholars mentioned at the beginning of the passage
- (C) suggest that federal investment in some kinds of manufacturing was excessive
- (D) identify the states that received the largest allocations of federal funds
- (E) provide information to support a point about the nature of government investment made earlier in the paragraph

Passage 119

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

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

2. It can be inferred from the passage that Rubin disagrees with skeptics mentioned in the passage about which of the following?

- (A) Whether porous bodies generate less debris when struck than do solid bodies
- (B) The temperatures asteroids would have to reach for their rocks to have melted
- (C) The likely effect of impacts on asteroids' temperatures

Passage 120

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

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

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

2. Emerson is mentioned in the passage primarily to

- (A) Identify the origin of a particular understanding of Franklin
- (B) Elaborate on a view of Franklin that the author takes issue with
- (C) Point to a controversial claim about Franklin's historical legacy
- (D) Introduce the question of who Franklin's main scientific influences were

- (E) Suggests that Franklin was resistant to collaboration with other scientists

Passage 121

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.

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

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

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

Passage 122

Biologists know that some marine algae can create clouds by producing the gas dimethyl sulphide (DMS), which reacts with oxygen in air above the sea to form solid particles. These particles provide a surface on which water vapor can condense to form clouds. Lovelock contends that this process is part of global climatic—control system. According to Lovelock, Earth acts like a super organism, with all its biological and physical systems cooperating to keep it healthy. He hypothesized that warmer conditions increase algal activity and DMS output,

seeding more clouds, which cool the planet by blocking out the Sun. Then, as the climate cools, algal activity and DMS level decrease and the cycle continues. In response to biologists who question how organisms presumably working for their own selfish ends could have evolved to behave in a way that benefits not only the planet but the organisms as well, cooling benefits the algae, which remain at the ocean surface, because it allows the cooled upper layers of the ocean to sink, and then the circulating water carries nutrients upward from the depths below. Algae may also benefit from nitrogen raining down from clouds they have helped to form.

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

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

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

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

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

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

Passage 123

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 Q1 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

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

2. The passage implies which of the following about the explanation mentioned in the highlighted text Q2?

- (A) There are empirical findings that conflict with a presumption of the explanation.
- (B) The explanation predicts that the effect of calorie restriction on longevity will be the greatest for the species with the highest rate of metabolism.
- (C) The explanation predicts that the effects of calorie restriction will be uniformly positive.

Passage 124

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

1. It can be inferred that the author of the passage mentions the efficiency with which gray squirrels forage primarily in order to

- A. identify a factor that explains a certain phenomenon
- B. call attention to an inconsistency in a particular theory
- C. suggest that competition cannot be the factor responsible for a particular outcome

- D. acknowledge a fact that appears to support a view that the author intends to qualify
- E. cite evidence that is not consistent with an early influential view about species competition

2. It can be inferred that the author of the passage would be most likely to agree with which of the following statements about the “early view?”

- (A) It reflects a mistaken assumption about the means by which nonnative species are introduced into ecosystems.
- (B) Its basic premise is shown to be valid by the effect of American gray squirrels on Britain’s red squirrel population.
- (C) It presents a simplistic picture of the means by which species composition within ecosystems is determined.
- (D) It can effectively explain the formation of ecosystems that contain few species but cannot adequately account for the formation of complex ecosystems.
- (E) It understates the importance of competition as a factor determining species composition within ecosystems.

Passage 125

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

1. The passage points out which of the following in order to explain the appeal of the notion that some attine ants cultivate and control fungus?

- (A) The ants play the behaviorally active role in the symbiotic relationship.
- (B) The ants purposefully carry vegetation into their nests for their own consumption.
- (C) Fungus is physiologically a passive substance.
- (D) Other organisms are able to manipulate their symbiotic partners.
- (E) The chemical and physiological properties of the fungus are subject to ant influence.

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

- (A) influence
- (B) oversee
- (C) coerce
- (D) deceive
- (E) outmaneuver

Passage 126

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

1. The passage mentions the “scandalous memoirs” that were written prior to the Romantic period primarily in order to

- (A) indicate an alternative account of the origins of biography
- (B) compare these memoirs to Romantic biography
- (C) explain how biography became ubiquitous in British culture
- (D) question the ideological significance accorded to biography
- (E) suggest that biographies were not as popular as memoirs

2. According to the passage, biography attained great significance within British culture during the Romantic period because biographies

- (A) were associated with scandal
- (B) were easy to read and comprehend
- (C) were so widespread in Britain at the time
- (D) challenged conventional British ideologies
- (E) contributed to the development of the novel

Passage 127

Our study revealed that nest-guarding long-tailed skinks (a species of lizard) homed (returned to their nests) more successfully when displaced shorter distances. There are two reasons why homing success rates decreased with increasing displacement distance. One possibility is that females were simply displaced too far to find their way home. **However, this is unlikely given that some individuals managed to find their way home from each distance we used.** The second possibility deals with trade-offs between the risks associated with making a long return trip and the benefits of returning. Animals should expend energy only when the associated costs are low. As reptiles increase the time spent moving, their daily energy expenditure increases dramatically. The energetic costs of returning home and the chances that the eggs will have been preyed upon during the return trip both increase substantially as displacement distance

increases. For example, the 130 hours (5.5 days) that female skinks spent returning from a distance of 300 meters is sufficient for an egg-eating snake to locate and prey upon the entire clutch. However, females with larger clutches were more likely to home at distances over 50 meters. For these females, the relative fitness benefits associated with having more eggs successfully hatch may outweigh the energetic costs of returning to a nest site, even if the nest may have already been preyed upon.

1. The primary purpose of the passage is to

- A. question the validity of research on nest-guarding behavior in long-tailed skinks
- B. consider explanations for a finding regarding long-tailed skinks
- C. discuss the importance of homing for long-tailed skinks
- D. describe the relationship between clutch size and homing success in long-tailed skinks
- E. identify the benefits of a behavior common among long-tailed skinks

2. The claim in the highlighted sentence assumes which of the following about the individuals that managed to find their way home from each distance?

- A. They were less able to detect egg-eating predators than were the other long-tailed skinks studied.
- B. They were more averse to risk than were the other long-tailed skinks studied
- C. They expended less energy when homing than did the other long-tailed skinks studied.
- D. They did not possess better homing skills than did the other long-tailed skinks studied.
- E. They had significantly smaller clutches than did the other long-tailed skinks studied.

3. The "second possibility" implies which of the following as a possible explanation for the female long-tailed skinks that failed to home from distances over 50 meters ?

- A. They had relatively small clutches
- B. They were unable to find their way home
- C. They lacked sufficient energy to home successfully
- D. They had male long-tailed skinks guarding their clutches
- E. They detected evidence of egg-eating snakes in the vicinity of their nests.

Passage 128

In the late nineteenth century, art critics regarded seventeenth-century Dutch paintings as direct reflections of reality. The paintings were discussed as an index of the democracy of a society that chose to represent its class, action, and occupations exactly as they were, wide-ranging realism was seen as the great accomplishment of Dutch art. However, the achievement of more recent study of Dutch art has been the recovery of the fact that such paintings are to be taken as symbolizing mortality, the renaissance of earthly life, and the power of God, and as message that range from the mildly moralizing to the firmly didactic. How explicit and consistent the

symbolizing process was intended to be is a much thornier matter, but anyone who has more familiarity than a passing acquaintance with Dutch literature or with the kinds of images used in illustrated books (above all emblem books) will know how much less pervasive was the habit of investing ordinary objects than of investing scenes with meaning that go beyond their surface and outward appearance. In the mid-1960s, Eddy de Jongh published an extraordinary array of material—especially from the emblem books and vernacular literature—that confirmed the unreliability of taking Dutch pictures at surface value alone.

The major difficulty, however, with the findings of critics such as de Jongh is that it is not easy to assess the multiplicity of levels in which Dutch viewers interpreted these pictures. De Jongh's followers typically regard the pictures as purely symbolic. Not every object within Dutch paintings need be interpreted in terms of the gloss given to its equivalent representation in the emblem books. Not every foot warmer is to be interpreted in terms of the foot warmer in Rowmer Visscher's *Sinnepoppen* of 1614, not every **bridle** is an emblem of restraint (though many were indeed just that).

To maintain as Brown does, that the two children in Netscher's painting *A Lady Teaching a Child to Read* stand for industry and idleness is to fail to understand that the painting has a variety of possible meanings, even though the picture undoubtedly carries unmistakable symbolic meanings, too. Modern Art historians may well find the discovery of parallels between a painting and a specific emblem exciting, they may, like seventeenth-century viewers, search for the double that lie behind many paintings. But seventeenth-century response can hardly be reduced to the level of formula. To suggest otherwise is to imply a laboriousness of mental process that may well characterize modern interpretations of seventeenth-century Dutch Art, but that was, for the most part, not characteristic in the seventeenth century.

1. The passage is primarily concerned with which of the following?

- (A) Reconciling two different points of view about how art reflects
- (B) Criticizing a traditional method of interpretation
- (C) Tracing the development of an innovative scholarly approach
- (D) Describing and evaluating a recent critical approach
- (E) Describing a long-standing controversy and how it was resolved

2. The author of the passage mentions **bridles in the highlighted portion of the passage most likely in order to**

- (A) Suggest that restraint was only one of the many symbolic meanings attached to bridles
- (B) Provide an example of an everyday, physical object that was not endowed with symbolic meaning
- (C) Provide an example of an object that modern critics have endowed with symbolic meaning different from the meaning assigned it by seventeenth-century Dutch artists
- (D) Provide an example of an object with symbolic meaning that was not always used as a symbol
- (E) Provide an example of an everyday object that appears in a significant number of seventeenth-century Dutch paintings

3. Which of the following best describes the function of the last paragraph of the passage?

- (A) It provides specific applications of the critical approach introduced in the preceding paragraph
- (B) It present a caveat about the critical approach discussed in the preceding paragraph
- (C) It presents the research on which a theory presented in the preceding paragraph is based
- (D) It refutes a theory presented in the preceding paragraph and advocates a return to a more traditional approach
- (E) It provides further information about the unusual phenomenon described in the preceding paragraph

4. The passage suggests which of the following about emblem books in seventeenth-century Holland?

- (A) They confirm that seventeenth century Dutch painting depict some objects and scenes rarely found in daily life.
- (B) They are more useful than vernacular literature in providing information about the symbolic content of seventeenth-century Dutch painting.
- (C) They have been misinterpreted by art critics, such as de Jongh, who claim seventeenth-century Dutch paintings contain symbolic meaning
- (D) They are not useful in interpreting seventeenth-century Dutch landscape painting.
- (E) They contain material that challenges the assumptions of the nineteenth-century critics about seventeenth-century Dutch painting.

Passage 129

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 any one 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 the Americas, and van Eyck died decades before Europeans reached the Americas.

1. In the argument given, the two highlighted portions play which of the following roles?

- (A) The first and the second are each pieces of evidence that have been used to support the position that the argument opposes.
- (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.

Passage 130

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*.

1. 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 131

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.

1. Which of following, if true, most helps to explain the low rate glaucoma-related blindness among patients who had the surgery?

- A. Glaucoma-related blindness is no more common among patients who have had only the

- surgery than it is among patients who had the surgery after using the eyedrops
- B. Doctors rarely recommend the surgery for glaucoma patients who have already started the traditional course of treatment
- C. There is no known physiological cause of glaucoma other than increase in pressure inside the eye
- D. A significant percentage of the people for whom the eyedrop treatment has been prescribed fail to follow the prescribed daily regimen, because the eyedrops have unpleasant side effects.
- E. The eyedrops traditionally prescribed to treat glaucoma are normally prescribed to treat other disease of the eye.

Passage 132

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.

1. 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 133

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.

1. 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 134

The economy of Colonia has been in recession for the past eight years. Most companies that have not been forced into bankruptcy have survived thanks to the high efficiency of the employees they retained, which helped the companies control costs. In recent months, however, the Colonial economy has begun to recover, and companies are beginning to expand their workforces. Colonia, therefore, will soon experience a drop in average worker efficiency, since _____.

1. 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.

Passage 135

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 _____.

1. 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 136

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_____.

17. 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