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GRE 阅读 24 套使用说明：

题目来源：

Exercise 1-24：所有题目都来自官方真题

其中：

Exercise 1-14：我们将 OG 和 PP2 中的题目编排为前 14 个 Exercise，每个 Exercise 都是按照 GRE 考试中阅读部分的出题习惯编排，即每个 Exercise 10 个题目，形式为（1 长+2 短+1 逻辑 or 4 短+1 逻辑）。

Exercise 15-24：我们将近年来考试中出现的文章和老 GRE 中极为接近现行出题风格的文章编排为后 10 个 Exercise，每个 Exercise 13 个题目左右，形式为（1 长+1 短+1-2 逻辑）。

练习方法：

建议大家第一遍做能够限时练习（每个练习的参考时间都表在练习的前面），按照考试的要求每个 Exercise 的大致难度和应该用的时间都标在了前面。没做完 6 个 exercise 可以做一个回顾总结，将文章反复做一遍，总结单词，长难句，文章的出题规律，句子之间的关系。

答案显示方法：

PDF 版：答案在最后一页

WORD 版：答案将显示在每个题目的后面，显示方法如下：

windows 系统：Ctrl+Shift+8；

Mac 系统：Command+8

Exercise 1. 18min

While most scholarship on women's employment in the United States recognizes that the Second World War (1939–1945) dramatically changed the role of women in the workforce, these studies also acknowledge that few women remained in manufacturing jobs once men returned from the war. But in agriculture, unlike other industries where women were viewed as temporary workers, women's employment did not end with the war. Instead, the expansion of agriculture and a steady decrease in the number of male farmworkers combined to cause the industry to hire more women in the postwar years.

Consequently, the 1950s saw a growing number of women engaged in farm labor, even though rhetoric in the popular media called for the return of women to domestic life.

1. It can be inferred from the passage that the manufacturing and agricultural sectors in the United States following the Second World War differed in which of the following respects?
 - A. The rate of expansion in each sector
 - B. The percentage of employees in each sector who were men
 - C. The trend in the wages of men employed in each sector
 - D. The attitude of the popular media toward the employment of women in each sector
 - E. The extent to which women in each sector were satisfied with their jobs

2. Which of the following statements about women's employment in the United States during and after the Second World War is most clearly supported by the passage?
 - A. Most women who joined the workforce during the Second World War wanted to return to domestic life when the war ended.
 - B. The great majority of women who joined the workforce during the Second World War were employed in manufacturing jobs.
 - C. The end of the Second World War was followed by a large-scale transfer of women workers from manufacturing to agriculture.
 - D. The increase in women's employment that accompanied the Second World War was longer lasting in agriculture than it was in manufacturing.
 - E. The popular media were more forceful in calling for women to join the workforce during the Second World War than in calling for women to return to domestic life after the war.

The evolution of intelligence among early large mammals of the grasslands was due in great measure to the interaction between two ecologically synchronized groups of these animals, the hunting carnivores and the herbivores that they hunted. The interaction resulting from the differences between predator and prey led to a general improvement in brain functions; however, certain components of intelligence were improved far more than others.

The kind of intelligence favored by the interplay of increasingly smarter catchers and increasingly keener escapers is defined by attention — that aspect of mind carrying consciousness forward from one moment to the next. It ranges from a passive, freefloating awareness to a highly focused, active fixation. The range through these states is mediated by the arousal system, a network of tracts converging from sensory systems to integrating centers in the brain stem. From the more relaxed to the more vigorous levels, sensitivity to novelty is increased. The organism is more awake, more vigilant; this increased vigilance results in the apprehension of ever more subtle signals as the organism becomes more sensitive to its surroundings. The processes of arousal and concentration give attention its direction. Arousal is at first general, with a flooding of impulses in the brain stem; then gradually the activation is channeled. Thus begins concentration, the holding of consistent images. One meaning of intelligence is the way in

which these images and other alertly searched information are used in the context of previous experience. Consciousness links past attention to the present and permits the integration of details with perceived ends and purposes.

The elements of intelligence and consciousness come together marvelously to produce different styles in predator and prey. Herbivores and carnivores develop different kinds of attention related to escaping or chasing. Although in both kinds of animal, arousal stimulates the production of adrenaline and norepinephrine by the adrenal glands, the effect in herbivores is primarily fear, whereas in carnivores the effect is primarily aggression. For both, arousal attunes the animal to what is ahead. Perhaps it does not experience forethought as we know it, but the animal does experience something like it. The predator is searchingly aggressive, inner-directed, tuned by the nervous system and the adrenal hormones, but aware in a sense closer to human consciousness than, say, a hungry lizard's instinctive snap at a passing beetle. Using past events as a framework, the large mammal predator is working out a relationship between movement and food, sensitive to possibilities in cold trails and distant sounds — and yesterday's unforgotten lessons. The herbivore prey is of a different mind. Its mood of wariness rather than searching and its attitude of general expectancy instead of anticipating are silk-thin veils of tranquility over an explosive endocrine system.

3. The author refers to a hungry lizard (paragraph 3) primarily in order to
 - A. demonstrate the similarity between the hunting methods of mammals and those of nonmammals
 - B. broaden the application of the argument by including an insectivore as an example
 - C. make a distinction between higher and lower levels of consciousness
 - D. provide an additional illustration of the brutality characteristic of predators
 - E. offer an objection to suggestions that all animals lack consciousness
4. It can be inferred from the passage that in animals less intelligent than the mammals discussed in the passage
 - A. past experience is less helpful in ensuring survival
 - B. attention is more highly focused
 - C. muscular coordination is less highly developed
 - D. there is less need for competition among species
 - E. environment is more important in establishing the proper ratio of prey to predator
5. According to the passage, improvement in brain function among early large mammals resulted primarily from which of the following?
 - A. Interplay of predator and prey.
 - B. Persistence of free-floating awareness in animals of the grasslands.
 - C. Gradual dominance of warm-blooded mammals over cold-blooded reptiles.
 - D. Interaction of early large mammals with less intelligent species.
 - E. Improvement of the capacity for memory among herbivores and carnivores.
6. According to the passage, as the process of arousal in an organism continues, all of the following may occur EXCEPT
 - A. the production of adrenaline
 - B. the production of norepinephrine
 - C. a heightening of sensitivity to stimuli
 - D. an increase in selectivity with respect to stimuli
 - E. an expansion of the range of states mediated by the brain stem

A person who agrees to serve as mediator between two warring factions at the request of both abandons by so agreeing the right to take sides later. To take sides at a later point would be to suggest that the earlier presumptive impartiality was a sham.

7. The passage above emphasizes which of the following points about mediators?
- A. They should try to form no opinions of their own about any issue that is related to the dispute.
 - B. They should not agree to serve unless they are committed to maintaining a stance of impartiality.
 - C. They should not agree to serve unless they are equally acceptable to all parties to a dispute.
 - D. They should feel free to take sides in the dispute right from the start, provided that they make their biases publicly known.
 - E. They should reserve the right to abandon their impartiality so as not to be open to the charge of having been deceitful.

Reviving the practice of using elements of popular music in classical composition, an approach that had been in hibernation in the United States during the 1960s, composer Philip Glass (born 1937) embraced the ethos of popular music without imitating it. Glass based two symphonies on music by rock musicians David Bowie and Brian Eno, but the symphonies' sound is distinctively his. Popular elements do not appear out of place in Glass's classical music, which from its early days has shared certain harmonies and rhythms with rock music. Yet this use of popular elements has not made Glass a composer of popular music. His music is not a version of popular music packaged to attract classical listeners; it is high art for listeners steeped in rock rather than the classics.

8. The passage addresses which of the following issues related to Glass's use of popular elements in his classical compositions?
- A. How it is regarded by listeners who prefer rock to the classics
 - B. How it has affected the commercial success of Glass's music
 - C. Whether it has contributed to a revival of interest among other composers in using popular elements in their compositions
 - D. Whether it has had a detrimental effect on Glass's reputation as a composer of classical music
 - E. Whether it has caused certain of Glass's works to be derivative in quality
9. The passage suggests that Glass's work displays which of the following qualities?
- A. A return to the use of popular music in classical compositions
 - B. An attempt to elevate rock music an artistic status more closely approximating that of classical music
 - C. A long-standing tendency to incorporate elements from two apparently disparate musical styles
10. Select the sentence that distinguishes two ways of integrating rock and classical music.

Exercise 2. 18min

Since the Hawaiian Islands have never been connected to other land masses, the great variety of plants in Hawaii must be a result of the long-distance dispersal of seeds, a process that requires both a method of transport and an equivalence between the ecology of the source area and that of the recipient area.

There is some dispute about the method of transport involved. Some biologists argue that ocean and air currents are responsible for the transport of plant seeds to Hawaii. Yet the results of flotation experiments and the low temperatures of air currents cast doubt on these hypotheses. More probable is bird transport, either externally, by accidental attachment of the seeds to feathers, or internally, by the swallowing of fruit and subsequent excretion of the seeds. While it is likely that fewer varieties of plant seeds have reached Hawaii externally than internally, more varieties are known to be adapted to external than to internal transport.

1. The author of the passage is primarily concerned with
 - A. discussing different approaches biologists have taken to testing theories about the distribution of plants in Hawaii
 - B. discussing different theories about the transport of plant seeds to Hawaii
 - C. discussing the extent to which air currents are responsible for the dispersal of plant seeds to Hawaii
 - D. resolving a dispute about the adaptability of plant seeds to bird transport
 - E. resolving a dispute about the ability of birds to carry plant seeds long distances
2. The author mentions the results of flotation experiments on plant seeds (lines 5) most probably in order to
 - A. support the claim that the distribution of plants in Hawaii is the result of the long-distance dispersal of seeds
 - B. lend credibility to the thesis that air currents provide a method of transport for plant seeds to Hawaii
 - C. suggest that the long-distance dispersal of seeds is a process that requires long periods of time
 - D. challenge the claim that ocean currents are responsible for the transport of plant seeds to Hawaii
 - E. refute the claim that Hawaiian flora evolved independently from flora in other parts of the world

Animal signals, such as the complex songs of birds, tend to be costly. A bird, by singing, may forfeit time that could otherwise be spent on other important behaviors such as foraging or resting. Singing may also advertise an individual's location to rivals or predators and impair the ability to detect their approach. Although these types of cost may be important, discussions of the cost of singing have generally focused on energy costs. Overall the evidence is equivocal: for instance, while Eberhardt found increases in energy consumption during singing for Carolina wrens, Chappell found no effect of crowing on energy consumption in roosters.

To obtain empirical data regarding the energy costs of singing, Thomas examined the relationship between song rate and overnight changes in body mass of male nightingales. Birds store energy as subcutaneous fat deposits or "body reserves"; changes in these reserves can be reliably estimated by measuring changes in body mass. If singing has important energy costs, nightingales should lose more body mass on nights when their song rate is high. Thomas found that nightingales reached a significantly higher body mass at dusk and lost more mass overnight on nights when their song rate was high.

These results suggest that there may be several costs of singing at night associated with body reserves. The increased metabolic cost of possessing higher body mass contributes to the increased overnight mass loss. The strategic regulation of evening body reserves is also likely to incur additional costs, as nightingales must spend more time foraging in order to build up larger body reserves. The metabolic cost of singing itself may also contribute to increased loss of reserves. This metabolic cost may arise from the muscular and neural activity involved in singing or from behaviors associated with singing. For example, birds may expend more of their reserves on thermoregulation

if they spend the night exposed to the wind on a song post than if they are in a sheltered roost site. Thomas's data therefore show that whether or not singing per se has an important metabolic cost, metabolic costs associated with singing can have an important measurable effect on a bird's daily energy budget, at least in birds with high song rates such as nightingales.

3. The primary purpose of the passage is to
- A. compare the different types of cost involved for certain birds in singing
 - B. question a hypothesis regarding the energy costs of singing for certain birds
 - C. present evidence suggesting that singing has an important energy cost for certain birds
 - D. discuss the benefits provided to an organism by a behavior that is costly in energy
 - E. describe an experiment that supports an alternative model of how birdsong functions

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

4. The passage implies that during the day before a night on which a male nightingale's song rate is high, that nightingale probably does which of the following?
- A. Expend less of its reserves on thermoregulation than on other days
 - B. Stores more energy as body reserves than on other days
 - C. Hides to avoid predators
5. Select the sentence in the first or second paragraph that presents empirical results in support of a hypothesis about the energy costs of singing.

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

6. It can be inferred from the passage that compared with other costs of singing, which of the following is true of the energy costs of singing?
- A. They are the single greatest cost to an individual bird.
 - B. They have generally received more attention from scientists.
 - C. They vary less from one bird species to another.

During the day in Lake Constance, the zooplankton *D.hyalina* departs for the depths where food is scarce and the water cold. *D.galeata* remains near the warm surface where food is abundant. Even though *D.galeata* grows and reproduces much faster, its population is often outnumbered by *D.hyalina*.

7. Which of the following, if true, would help resolve the apparent paradox presented above?
- A. The number of species of zooplankton living at the bottom of the lake is twice that of species living at the surface.
 - B. Predators of zooplankton, such as whitefish and perch, live and feed near the surface of the lake during the day.
 - C. In order to make the most of scarce food resources, *D.hyalina* matures more slowly than *D.galeata*.
 - D. *D.galeata* clusters under vegetation during the hottest part of the day to avoid the Sun's rays.
 - E. *D.galeata* produces twice as many offspring per individual in any given period of time as does *D.hyalina*.

Was Felix Was Felix Mendelssohn (1809–1847) a great composer? On its face, the question seems absurd. One of the most gifted prodigies in the history of music, he produced his first masterpiece at sixteen. From then on, he was recognized as an artist of preternatural abilities, not only as a composer but also as a pianist and conductor. But Mendelssohn’s enduring popularity has often been at odds — sometimes quite sharply — with his critical standing. Despite general acknowledgment of his genius, there has been a noticeable reluctance to rank him with, say, Schumann or Brahms. As Haggin put it, Mendelssohn, as a composer, was a “minor master . . . working on a small scale of emotion and texture.”

8. Select a sentence in the passage whose function is to indicate the range of Mendelssohn’s musical talents.
9. The passage suggests that anyone attempting to evaluate Mendelssohn’s career must confront which of the following dichotomies?
 - A. The tension between Mendelssohn’s career as a composer and his career as a pianist and conductor
 - B. The contrast between Mendelssohn’s popularity and that of Schumann and Brahms
 - C. The discrepancy between Mendelssohn’s popularity and his standing among critics
 - D. The inconsistency between Mendelssohn’s reputation during his lifetime and his reputation since his death
 - E. The gap between Mendelssohn’s prodigious musical beginnings and his decline in later years.
10. The author mentions Schumann and Brahms primarily in order to
 - A. provide examples of composers who are often compared with Mendelssohn
 - B. identify certain composers who are more popular than Mendelssohn
 - C. identify composers whom Mendelssohn influenced
 - D. establish the milieu in which Mendelssohn worked
 - E. establish a standard of comparison for Mendelssohn as a composer

Exercise 3. 18min

I enjoyed *A Dream of Light & Shadow: Portraits of Latin American Women Writers* for the same reasons that, as a child, I avidly consumed women's biographies: the fascination with how the biographical details of another female's life are represented and interpreted.

A Dream offers a rich read, varied in both the lives and texts of the women portrayed, and the perspectives and styles of the sixteen essayists. Yet, as an adult, I have come to demand of any really "great" book a self-consciousness about the tenuous nature of representations of reality, a critical contextualization of florid detail, and a self-awareness of the role of ideology in our lives. In these critical senses, *A Dream* is inadequate.

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

- The author of the passage suggests that *A Dream* falls short in which of the following respects?
 - It does not appear to recognize that representations of reality can be unreliable.
 - It seems to focus on stylistic variety at the expense of accuracy of detail.
 - It offers a wealth of detail without sufficient critical examination of that detail.
- Which of the following best describes the function of the second sentence ("A Dream . . . essayists") in the context of the passage as a whole?
 - To give examples of how *A Dream* presents fascinating portraits that display awareness of the tenuous nature of representations of reality
 - To elaborate on how *A Dream* fulfills the author's childhood criteria for a pleasurable book
 - To suggest that the author enjoyed *A Dream* for reasons more sophisticated than the reasons she enjoyed certain books as a child
 - To illustrate ways in which the author finds *A Dream* to be inadequate in certain critical senses
 - To imply that *A Dream* is too varied in focus to provide a proper contextualization of the biographical details it offers

Some researchers contend that sleep plays no role in the consolidation of declarative memory (i.e., memory involving factual information). These researchers note that people with impairments in rapid eye movement (REM) sleep continue to lead normal lives, and they argue that if sleep were crucial for memory, then these individuals would have apparent memory deficits. Yet the same researchers acknowledge that the cognitive capacities of these individuals have never been systematically examined, nor have they been the subject of studies of tasks on which performance reportedly depends on sleep. Even if such studies were done, they could only clarify our understanding of the role of REM sleep, not sleep in general.

These researchers also claim that improvements of memory overnight can be explained by the mere passage of time, rather than attributed to sleep. But recent studies of memory performance after sleep — including one demonstrating that sleep stabilizes declarative memories from future interference caused by mental activity during wakefulness — make this claim unsustainable. Certainly there are memory consolidation processes that occur across periods of wakefulness, some of which neither depend on nor are enhanced by sleep. But when sleep is compared with wakefulness, and performance is better after sleep, then some benefit of sleep for memory must be acknowledged.

- The primary purpose of the passage is to
 - present the evidence that supports a particular claim regarding REM sleep and memory
 - describe how various factors contribute to the effect of sleep on memory
 - argue against a particular position regarding sleep's role in memory

- D. summarize the most prevalent theory regarding sleep and memory
 - E. defend the importance of the consolidation of declarative memory
4. According to the author of the passage, which of the following generalizations about memory and sleep is true?
- A. There are some memory-consolidation processes that have nothing to do with sleep.
 - B. Sleep is more important to the consolidation of declarative memory than to the consolidation of other types of memory.
 - C. REM sleep is more important to memory consolidation than is non-REM sleep.
 - D. There are significant variations in the amount of sleep that people require for the successful consolidation of memory.
 - E. It is likely that memory is more thoroughly consolidated during wakefulness than during sleep.
5. Which of the following best describes the function of the sentence in lines 11–12 (“Certainly . . . sleep”)?
- A. It provides the reasoning behind a claim about the role of sleep in memory consolidation.
 - B. It explains why a previous claim about sleep and memory is unsustainable.
 - C. It demonstrates why wakefulness is central to the process of declarative memory consolidation.
 - D. It emphasizes the limited role sleep plays in the process of declarative memory consolidation.
 - E. It concedes that the consolidation of declarative memory does not depend entirely on one factor.
6. The importance of the study mentioned in lines 9–10 is that it
- A. reveals the mechanism by which declarative memory is stabilized during sleep
 - B. identifies a specific function that sleep plays in the memory-consolidation process
 - C. demonstrates that some kinds of mental activity can interfere with memory consolidation
 - D. suggests that sleep and wakefulness are both important to memory consolidation
 - E. explains how the passage of time contributes to memory consolidation

In the United States between 1850 and 1880, the number of farmers continued to increase, but at a rate lower than that of the general population.

7. Which of the following statements directly contradicts the information presented above?
- A. The number of farmers in the general population increased slightly in the 30 years between 1850 and 1880.
 - B. The rate of growth of the United States labor force and the rate of growth of the general population rose simultaneously in the 30 years between 1850 and 1880.
 - C. The proportion of farmers in the United States labor force remained constant in the 30 years between 1850 and 1880.
 - D. The proportion of farmers in the United States labor force decreased from 64 percent in 1850 to 49 percent in 1880.
 - E. The proportion of farmers in the general population increased from 68 percent in 1850 to 72 percent in 1880.

Whether the languages of the ancient American peoples were used for expressing abstract universal concepts can be clearly answered in the case of Nahuatl. Nahuatl, like Greek and German, is a language that allows the formation of extensive compounds. By the combination of radicals or semantic elements, single compound words can express complex conceptual relations, often of an abstract universal character.

The *tlamatinime* (those who know) were able to use this rich stock of abstract terms to express the nuances of their thought. They also availed themselves of other forms of expression with metaphorical meaning, some probably original, some derived from Toltec coinages. Of these forms, the most characteristic in Nahuatl is the

juxtaposition of two words that, because they are synonyms, associated terms, or even contraries, complement each other to evoke one single idea. Used metaphorically, the juxtaposed terms connote specific or essential traits of the being they refer to, introducing a mode of poetry as an almost habitual form of expression.

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

8. Which of the following can be inferred from the passage regarding present-day research relating to Nahuatl?
 - A. Some record or evidence of the thought of the tlamatime is available.
 - B. For at least some Nahuatl expressions, researchers are able to trace their derivation from another ancient American language.
 - C. Researchers believe that in Nahuatl, abstract universal concepts are always expressed metaphorically.
9. Select the sentence in the passage in which the author introduces a specific Nahuatl mode of expression that is not identified as being shared with certain European languages.
10. In the context in which it appears, “coinages” (line 7) most nearly means
 - A. adaptations
 - B. creations
 - C. idiosyncrasies
 - D. pronunciations
 - E. currencies

Exercise 4. 18min

Tocqueville, apparently, was wrong. Jacksonian America was not a fluid, egalitarian society where individual wealth and poverty were ephemeral conditions. At least so argues Pessen in his iconoclastic study of the very rich in the United States between 1825 and 1850.

Pessen does present a quantity of examples, together with some refreshingly intelligible statistics, to establish the existence of an inordinately wealthy class. Though active in commerce or the professions, most of the wealthy were not self-made but had inherited family fortunes. In no sense mercurial, these great fortunes survived the financial panics that destroyed lesser ones. Indeed, in several cities the wealthiest one percent constantly increased its share until by 1850 it owned half of the community's wealth. Although these observations are true, Pessen overestimates their importance by concluding from them that the undoubted progress toward inequality in the late eighteenth century continued in the Jacksonian period and that the United States was a class-ridden, plutocratic society even before industrialization.

1. According to the passage, Pessen indicates that all of the following were true of the very wealthy in the United States between 1825 and 1850 EXCEPT:
 - A. They formed a distinct upper class.
 - B. Many of them were able to increase their holdings.
 - C. Some of them worked as professionals or in business.
 - D. Most of them accumulated their own fortunes.
 - E. Many of them retained their wealth in spite of financial upheavals.

2. Which of the following best states the author's main point?
 - A. Pessen's study has overturned the previously established view of the social and economic structure of early-nineteenth-century America.
 - B. Tocqueville's analysis of the United States in the Jacksonian era remains the definitive account of this period.
 - C. Pessen's study is valuable primarily because it shows the continuity of the social system in the United States throughout the nineteenth century.
 - D. The social patterns and political power of the extremely wealthy in the United States between 1825 and 1850 are well documented.
 - E. Pessen challenges a view of the social and economic systems in the United States from 1825 to 1850, but he draws conclusions that are incorrect.

Until recently, many anthropologists assumed that the environment of what is now the southwestern United States shaped the social history and culture of the region's indigenous peoples. Building on this assumption, archaeologists asserted that adverse environmental conditions and droughts were responsible for the disappearances and migrations of southwestern populations from many sites they once inhabited.

However, such deterministic arguments fail to acknowledge that local environmental variability in the Southwest makes generalizing about that environment difficult. To examine the relationship between environmental variation and sociocultural change in the Western Pueblo region of central Arizona, which indigenous tribes have occupied continuously for at least 800 years, a research team recently reconstructed the climatic, vegetational, and erosional cycles of past centuries. The researchers found it impossible to provide a single, generally applicable characterization of environmental conditions for the region. Rather, they found that local areas experienced different patterns of rainfall, wind, and erosion, and that such conditions had prevailed in the Southwest for the last 1,400 years. Rainfall, for example, varied within and between local valley systems, so that even adjacent agricultural fields can produce

significantly different yields.

The researchers characterized episodes of variation in southwestern environments by frequency: low-frequency environmental processes occur in cycles longer than one human generation, which generally is considered to last about 25 years, and high-frequency processes have shorter cycles. The researchers pointed out that low-frequency processes, such as fluctuations in stream flow and groundwater levels, would not usually be apparent to human populations. In contrast, high-frequency fluctuations such as seasonal temperature variations are observable and somewhat predictable, so that groups could have adapted their behaviors accordingly. When the researchers compared sequences of sociocultural change in the Western Pueblo region with episodes of low- and high-frequency environmental variation, however, they found no simple correlation between environmental process and sociocultural change or persistence.

Although early Pueblo peoples did protect themselves against environmental risk and uncertainty, they responded variously on different occasions to similar patterns of high-frequency climatic and environmental change. The researchers identified seven major adaptive responses, including increased mobility, relocation of permanent settlements, changes in subsistence foods, and reliance on trade with other groups. These findings suggest that groups' adaptive choices depended on cultural and social as well as environmental factors and were flexible strategies rather than uncomplicated reactions to environmental change. Environmental conditions mattered, but they were rarely, if ever, sufficient to account for sociocultural persistence and change. Group size and composition, culture, contact with other groups, and individual choices and actions were — barring catastrophes such as floods or earthquakes — more significant for a population's survival than were climate and environment.

3. The passage is primarily concerned with
 - A. explaining why certain research findings have created controversy
 - B. pointing out the flaws in a research methodology and suggesting a different approach
 - C. presenting evidence to challenge an explanation and offering an alternative explanation
 - D. elucidating the means by which certain groups have adapted to their environment
 - E. defending a long-held interpretation by presenting new research findings
4. Which of the following findings would most strongly support the assertion made by the archaeologists mentioned in line 2?
 - A. A population remained in a certain region at least a century after erosion wore away much of the topsoil that sustained grass for their grazing animals.
 - B. The range of a certain group's agricultural activity increased over a century of gradual decrease in annual rainfall.
 - C. As winters grew increasingly mild in a certain region, the nomadic residents of the region continued to move between their summer and winter encampments.
 - D. An agricultural population began to trade for supplies of a grain instead of producing the grain in its own fields as it had in the past.
 - E. A half century of drought and falling groundwater levels caused a certain population to abandon their settlements along a riverbank.
5. The fact that “adjacent agricultural fields can produce significantly different yields” (lines 12–13) is offered as evidence of the
 - A. unpredictability of the climate and environment of the southwestern United States
 - B. difficulty of producing a consistent food supply for a large population in the Western Pueblo region
 - C. lack of water and land suitable for cultivation in central Arizona

- D. local climatic variation in the environment of the southwestern United States
 - E. high-frequency environmental processes at work in the southwestern United States
6. It can be inferred from the passage that which of the following activities is NOT an example of a population responding to high-frequency environmental processes?
- A. Developing watertight jars in which to collect and store water during the rainy season
 - B. Building multistory dwellings in low-lying areas to avoid the flash flooding that occurs each summer
 - C. Moving a village because groundwater levels have changed over the last generation
 - D. Trading with other groups for furs from which to make winter clothes
 - E. Moving one's herds of grazing animals each year between summer and winter pastures

A ten-year comparison between the United States and the Soviet Union in terms of crop yields per acre revealed that when only planted acreage is compared, Soviet yields were equal to 68 percent of United States yields. When total agricultural acreage (planted acreage plus fallow acreage) is compared, however, Soviet yield was 114 percent of United States yield.

7. From the information above, which of the following can be most reliably inferred about United States and Soviet agriculture during the ten-year period?
- A. A higher percentage of total agricultural acreage was fallow in the United States than in the Soviet Union.
 - B. The United States had more fallow acreage than planted acreage.
 - C. Fewer total acres of available agricultural land were fallow in the Soviet Union than in the United States.
 - D. The Soviet Union had more planted acreage than fallow acreage.
 - E. The Soviet Union produced a greater volume of crops than the United States produced.

The condition of scholarship devoted to the history of women in photography is confounding. Recent years have witnessed the posthumous inflation of the role of the hobbyist Alice Austen into that of a pioneering documentarian while dozens of notable senior figures — Marion Palfi, whose photographs of civil-rights activities in the South served as early evidence of the need for protective legislation, to name one — received scant attention from scholars. And, while Naomi Rosenblum's synoptic *History of Women Photographers* covers the subject through 1920 in a generally useful fashion, once she reaches the 1920s, when the venues, forms, applications, and movements of the medium expanded exponentially, she resorts to an increasingly terse listing of un-familiar names, with approaches and careers summarized in a sentence or two.

8. The author of the passage cites Rosenblum's book most likely in order to
- A. suggest that the works documented most thoroughly by historians of women in photography often do not warrant that attention
 - B. offer an explanation for the observation that not all aspects of the history of women in photography have received the same level of attention
 - C. provide an example of a way in which scholarship on the history of women in photography has been unsatisfactory
 - D. suggest that employing a strictly chronological approach when studying the history of women in photography may be unproductive
 - E. provide support for the notion that certain personalities in women's photography have attained undue prominence

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

9. Which of the following statements about Marion Palfi is supported by the passage?
- A. Marion Palfi's photographs would have received greater recognition from historians had her work been done in an era when most aspects of photography were static rather than in a state of transition.
 - B. Alice Austen has achieved greater notoriety than has Marion Palfi primarily because the subjects that Austen photographed were more familiar to her contemporaries.
 - C. In addition to providing a record of certain historical events, Marion Palfi's photographs played a role in subsequent events.
10. In the context in which it appears, "inflation" (line 2) most nearly means
- A. exaggeration
 - B. acquisition
 - C. evaluation
 - D. distortion
 - E. attenuation

Exercise 5. 18min

When marine organisms called phytoplankton photosynthesize, they absorb carbon dioxide dissolved in seawater, potentially causing a reduction in the concentration of atmospheric carbon dioxide, a gas that contributes to global warming. However, phytoplankton flourish only in surface waters where iron levels are sufficiently high. Martin therefore hypothesized that adding iron to iron-poor regions of the ocean could help alleviate global warming. While experiments subsequently confirmed that such a procedure increases phytoplankton growth, field tests have shown that such growth does not significantly lower atmospheric carbon dioxide. When phytoplankton utilize carbon dioxide for photosynthesis, the carbon becomes a building block for organic matter, but the carbon leaks back into the atmosphere when predators consume the phytoplankton and respire carbon dioxide.

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

1. It can be inferred from the passage that Martin's hypothesis includes which of the following elements?
 - A. A correct understanding of how phytoplankton photosynthesis utilizes carbon dioxide
 - B. A correct prediction about how the addition of iron to iron-poor waters would affect phytoplankton growth
 - C. An incorrect prediction about how phytoplankton growth would affect the concentration of atmospheric carbon dioxide

2. It can be inferred that the author of the passage mentions predators (line 8) primarily in order to
 - A. help explain why Martin's hypothesis is incorrect
 - B. identify one effect of adding iron to iron-poor waters
 - C. indicate how some carbon dioxide is converted to solid organic matter
 - D. help account for differences in the density of phytoplankton between different regions of the ocean
 - E. point out a factor that was not anticipated by the scientists who conducted the field tests mentioned in the passage

Many critics of Emily Brontë's novel *Wuthering Heights* see its second part as a counter point that comments on, if it does not reverse, the first part, where a romantic reading receives more confirmation. Seeing the two parts as a whole is encouraged by the novel's sophisticated structure, revealed in its complex use of narrators and time shifts.

Granted that the presence of these elements need not argue for an authorial awareness of novelistic construction comparable to that of Henry James, their presence does encourage attempts to unify the novel's heterogeneous parts. However, any interpretation that seeks to unify all of the novel's diverse elements is bound to be somewhat unconvincing. This is not because such an interpretation necessarily stiffens into a thesis (although rigidity in any interpretation of this or of any novel is always a danger), but because *Wuthering Heights* has recalcitrant elements of undeniable power that, ultimately, resist inclusion in an all-encompassing interpretation. In this respect, *Wuthering Heights* shares a feature of *Hamlet*.

3. According to the passage, which of the following is a true statement about the first and second parts of *Wuthering Heights*?
 - A. The second part has received more attention from critics.
 - B. The second part has little relation to the first part.
 - C. The second part annuls the force of the first part.
 - D. The second part provides less substantiation for a romantic reading.
 - E. The second part is better because it is more realistic.

4. Which of the following inferences about Henry James's awareness of novelistic construction is best supported by the passage?
- A. James, more than any other novelist, was aware of the difficulties of novelistic construction.
 - B. James was very aware of the details of novelistic construction.
 - C. James's awareness of novelistic construction derived from his reading of Brontë.
 - D. James's awareness of novelistic construction has led most commentators to see unity in his individual novels.
 - E. James's awareness of novelistic construction precluded him from violating the unity of his novels.
5. The author of the passage would be most likely to agree that an interpretation of a novel should
- A. not try to unite heterogeneous elements in the novel
 - B. not be inflexible in its treatment of the elements in the novel
 - C. not argue that the complex use of narrators or of time shifts indicates a sophisticated structure
 - D. concentrate on those recalcitrant elements of the novel that are outside the novel's main structure
 - E. primarily consider those elements of novelistic construction of which the author of the novel was aware

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

6. The author of the passage suggests which of the following about Hamlet?
- A. Hamlet has usually attracted critical interpretations that tend to stiffen into theses.
 - B. Hamlet has elements that are not amenable to an all-encompassing critical interpretation.
 - C. Hamlet is less open to an all-encompassing critical interpretation than is *Wuthering Heights*.

At a certain period in Earth's history, its atmosphere contained almost no oxygen, although plants were producing vast quantities of oxygen. As a way of reconciling these two facts, scientists have hypothesized that nearly all of the oxygen being produced was taken up by iron on Earth's surface. Clearly, however, **this explanation is inadequate**. New studies show that **the amount of iron on Earth's surface was not sufficient to absorb anywhere near as much oxygen as was being produced**. Therefore, something in addition to the iron on Earth's surface must have absorbed much of the oxygen produced by plant life.

7. In the argument given, the two portions in boldface play which of the following roles?
- A. The first is a claim made by the argument in support of a certain position; the second is that position.
 - B. The first is a judgment made by the argument about a certain explanation; the second is that explanation.
 - C. The first expresses the argument's dismissal of an objection to the position it seeks to establish; the second is that position.
 - D. The first sums up the argument's position with regard to a certain hypothesis; the second provides grounds for that position.
 - E. The first is a concession by the argument that its initial formulation of the position it seeks to establish requires modification; the second presents that position in a modified form.

It would be expected that a novel by a figure as prominent as W. DuBois would attract the attention of literary critics. Additionally, when the novel subtly engages the issue of race, as DuBois' *The Quest of the Silver Fleece* (1911) does, it would be a surprise not to encounter an abundance of scholarly work about that text. But though valuable scholarship has examined DuBois' political and historical thought, his novels have received scant attention. Perhaps DuBois the novelist must wait his turn behind DuBois the philosopher, historian, and editor. But what if the truth lies elsewhere: what if his novels do not speak to current concerns?

8. Which of the following can be inferred from the passage regarding DuBois' *The Quest of the Silver Fleece*?
- A. The lack of attention devoted to *The Quest of the Silver Fleece* can be attributed to the fact that it was DuBois' first novel.
 - B. Among DuBois' novels, *The Quest of the Silver Fleece* is unusual in that it has received scant attention from scholars.
 - C. *The Quest of the Silver Fleece* has at least one feature that typically would attract the attention of literary scholars.
 - D. *The Quest of the Silver Fleece*, given its subtle exploration of race, is probably the best novel written by DuBois.
 - E. Much of the scholarly work that has focused on *The Quest of the Silver Fleece* has been surprisingly critical of it.
9. In the fourth sentence ("Perhaps DuBois . . . editor."), the author of the passage is most likely suggesting that
- A. scholars will find that DuBois' novels are more relevant to current concerns than is his work as philosopher, historian, and editor
 - B. more scholarly attention will be paid to *The Quest of the Silver Fleece* than to DuBois' other novels
 - C. DuBois' novels will come to overshadow his work as philosopher, historian, and editor
 - D. DuBois' novels may eventually attract greater scholarly interest than they have to date
 - E. it will be shown that DuBois' work as philosopher, historian, and editor had an important influence on his work as novelist
10. Which of the following best describes the central issue with which the passage is concerned?
- A. The perfunctoriness of much of the critical work devoted to DuBois' novels
 - B. The nature of DuBois' engagement with the issue of race in *The Quest of the Silver Fleece*
 - C. Whether DuBois' novels are of high quality and relevant to current concerns
 - D. The relationship between DuBois the novelist and DuBois the philosopher, historian, and editor
 - E. The degree of consideration that has been given to DuBois' novels, including *The Quest of the Silver Fleece*

Exercise 6. 18min

Elements of the Philosophy of Newton, published by Voltaire in 1738, was an early attempt to popularize the scientific ideas of Isaac Newton. In the book's frontispiece, Voltaire is seen writing at his desk, and over him a shaft of light from heaven, the light of truth, passes through Newton to Voltaire's collaborator Madame du Châtelet; she reflects that light onto the inspired Voltaire. Voltaire's book commanded a wide audience, according to Feingold, because "he was neither a mathematician nor a physicist, but a literary giant aloof from the academic disputes over Newtonian ideas." In other words, Voltaire's amateurism in science "was a source of his contemporary appeal, demonstrating for the first time the accessibility of Newton's ideas to nonspecialists."

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

- Which of the following statements about Voltaire's Elements of the Philosophy of Newton can be inferred from the passage?
 - Voltaire's literary stature helped secure a large audience for this attempt to popularize Newton's ideas.
 - Voltaire's status as a nonscientist was an advantage in this effort to bring Newtonian science to the attention of the general public.
 - The frontispiece of the book implies that Voltaire's understanding of Newton's ideas was not achieved without assistance.
- Select the sentence that describes an allegory for Voltaire's acquisition of knowledge concerning Newton's ideas.

Recent studies of sediment in the North Atlantic's deep waters reveal possible cyclical patterns in the history of Earth's climate. The rock fragments in these sediments are too large to have been transported there by ocean currents; they must have reached their present locations by traveling in large icebergs that floated long distances from their point of origin before melting. Geologist Gerard

Bond noticed that some of the sediment grains were stained with iron oxide, evidence that they originated in locales where glaciers had overrun outcrops of red sandstone. Bond's detailed analysis of deep-water sediment cores showed changes in the mix of sediment sources over time: the proportion of these red-stained grains fluctuated back and forth from lows of 5 percent to highs of about 17 percent, and these fluctuations occurred in a nearly regular 1,500-year cycle.

Bond hypothesized that the alternating cycles might be evidence of changes in ocean-water circulation and therefore in Earth's climate. He knew that the sources of the red-stained grains were generally closer to the North Pole than were the places yielding a high proportion of "clean" grains. At certain times, apparently, more icebergs from the Arctic Ocean in the far north were traveling south well into the North Atlantic before melting and shedding their sediment.

Ocean waters are constantly moving, and water temperature is both a cause and an effect of this movement. As water cools, it becomes denser and sinks to the ocean's bottom. During some periods, the bottom layer of the world's oceans comes from cold, dense water sinking in the far North Atlantic. This causes the warm surface waters of the Gulf Stream to be pulled northward. Bond realized that during such periods, the influx of these warm surface waters into northern regions could cause a large proportion of the icebergs that bear red grains to melt before traveling very far into the North Atlantic. But sometimes the ocean's dynamic changes, and waters from the Gulf Stream do not travel northward in this way. During these periods, surface waters in the North Atlantic would generally be colder, permitting icebergs bearing red-stained grains to travel farther south in the North Atlantic before melting and depositing their sediment.

The onset of the so-called Little Ice Age (1300-1860), which followed the Medieval Warm Period of the eighth

through tenth centuries, may represent the most recent time that the ocean's dynamic changed in this way. If ongoing climate-history studies support Bond's hypothesis of 1,500-year cycles, scientists may establish a major natural rhythm in Earth's temperatures that could then be extrapolated into the future. Because the midpoint of the Medieval Warm Period was about 850, an extension of Bond's cycles would place the midpoint of the next warm interval in the twenty-fourth century.

3. According to the passage, which of the following is true of the rock fragments contained in the sediments studied by Bond?
 - A. The majority of them are composed of red sandstone.
 - B. They must have reached their present location over 1,500 years ago.
 - C. They were carried by icebergs to their present location.
 - D. Most of them were carried to their present location during a warm period in Earth's climatic history.
 - E. They are unlikely to have been carried to their present location during the Little Ice Age.
4. In the final paragraph of the passage, the author is concerned primarily with
 - A. answering a question about Earth's climatic history
 - B. pointing out a potential flaw in Bond's hypothesis
 - C. suggesting a new focus for the study of ocean sediments
 - D. tracing the general history of Earth's climate
 - E. discussing possible implications of Bond's hypothesis
5. According to the passage, Bond hypothesized that which of the following circumstances would allow red-stained sediment grains to reach more southerly latitudes?
 - A. Warm waters being pulled northward from the Gulf Stream.
 - B. Climatic conditions causing icebergs to melt relatively quickly.
 - C. Icebergs containing a higher proportion of iron oxide than usual.
 - D. The formation of more icebergs than usual in the far north.
 - E. The presence of cold surface waters in the North Atlantic.
6. It can be inferred from the passage that in sediment cores from the North Atlantic's deep waters, the portions that correspond to the Little Ice Age
 - A. differ very little in composition from the portions that correspond to the Medieval Warm Period
 - B. fluctuate significantly in composition between the portions corresponding to the 1300s and the portions corresponding to the 1700s
 - C. would be likely to contain a proportion of red-stained grains closer to 17 percent than to 5 percent
 - D. show a much higher proportion of red-stained grains in cores extracted from the far north of the North Atlantic than in cores extracted from further south
 - E. were formed in part as a result of Gulf Stream waters having been pulled northward

In the past ten years, there have been several improvements in mountain-climbing equipment. These improvements have made the sport both safer and more enjoyable for experienced climbers. Despite these improvements, however, the rate of mountain climbing injuries has doubled in the past ten years.

7. Which of the following, if true, best reconciles the apparent discrepancy presented in the passage?
 - A. Many climbers, lulled into a false sense of security, use the new equipment to attempt climbing feats of which they are not capable.

- B. Some mountain-climbing injuries are caused by unforeseeable weather conditions.
- C. Mountain climbing, although a dangerous sport, does not normally result in injury to the experienced climber.
- D. In the past ten years there have been improvements in mountain-climbing techniques as well as in mountain-climbing equipment.
- E. Although the rate of mountain-climbing injuries has increased, the rate of mountain-climbing deaths has not changed.

In a recent study, David Cressy examines two central questions concerning English immigration to New England in the 1630s: what kinds of people immigrated and why? Using contemporary literary evidence, shipping lists, and customs records, Cressy finds that most adult immigrants were skilled in farming or crafts, were literate, and were organized in families. Each of these characteristics sharply distinguishes the 21,000 people who left for New England in the 1630s from most of the approximately 377,000 English people who had immigrated to America by 1700.

With respect to their reasons for immigrating, Cressy does not deny the frequently noted fact that some of the immigrants of the 1630s, most notably the organizers and clergy, advanced religious explanations for departure, but he finds that such explanations usually assumed primacy only in retrospect. When he moves beyond the principal actors, he finds that religious explanations were less frequently offered, and he concludes that most people immigrated because they were recruited by promises of material improvement.

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

- 8. The passage indicates that Cressy would agree with which of the following statements about the organizers among the English immigrants to New England in the 1630s?
 - A. Some of them offered a religious explanation for their immigration.
 - B. They did not offer any reasons for their immigration until sometime after they had immigrated.
 - C. They were more likely than the average immigrant to be motivated by material considerations.
- 9. Select the sentence that provides Cressy's opinion about what motivated English immigrants to go to New England in the 1630s.
- 10. In the passage, the author is primarily concerned with
 - A. summarizing the findings of an investigation
 - B. analyzing a method of argument
 - C. evaluating a point of view
 - D. hypothesizing about a set of circumstances
 - E. establishing categories

Exercise 7. 18min

Fossil bones of the huge herbivorous dinosaurs known as sauropods were first discovered and studied between 1840 and 1880, providing evidence for the gargantuan dimensions of the adults. The shape of sauropod teeth suggested what they ate. But aside from trackways, or series of fossilized footprints — which established that sauropods at least occasionally lived in herds — fossils incorporating direct evidence of other behavior, such as reproductive behavior, have been almost nonexistent. Because no modern land animals even approach sauropod size, scientists have also lacked a living analogue to use as a guide to possible sauropod behavior. Until the recent discovery of fossilized sauropod nesting grounds, scientists were thus uncertain whether sauropods laid eggs or gave birth to live young.

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

1. Which of the following can be inferred from the passage regarding the evidence provided by sauropod teeth?
 - A. The teeth allow inferences to be made about sauropod social behavior.
 - B. The shape of the teeth indicates that sauropods were herbivorous.
 - C. The teeth have no resemblance to those of any modern land animal.

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

2. Which of the following can be inferred from the passage regarding the recently discovered fossilized sauropod nesting grounds?
 - A. They are among the few fossils incorporating direct evidence of sauropod behavior.
 - B. They confirm the evidence provided by trackways about sauropod behavior.
 - C. They have forced a reevaluation of theories regarding the nature of sauropod herd behavior.

The work of English writer Aphra Behn (1640–1689) changed markedly during the 1680s, as she turned from writing plays to writing prose narratives. According to literary critic Rachel Carnell, most scholars view this change as primarily motivated by financial considerations: earning a living by writing for the theatre became more difficult in the 1680s, so Behn tried various other types of prose genres in the hope of finding another lucrative medium. In fact, a long epistolary scandal novel that she wrote in the mid-1680s sold quite well. Yet, as Carnell notes, Behn did not repeat this approach in her other prose works; instead, she turned to writing shorter, more serious novels, even though only about half of these were published during her lifetime. Carnell argues that Behn, whose stage productions are primarily comedies, may have turned to an emerging literary form, the novel, in a conscious attempt to criticize, and subvert for her own ends, the conventions and ideology of a well-established form of her day, the dramatic tragedy.

Carnell acknowledges that Behn admired the skill of such contemporary writers of dramatic tragedy as John Dryden, and that Behn's own comic stage productions displayed the same partisanship for the reigning Stuart monarchy that characterized most of the politically oriented dramatic tragedies of her day. However, Carnell argues that Behn took issue with the way in which these writers and plays defined the nature of tragedy. As prescribed by Dryden, tragedy was supposed to concern a heroic man who is a public figure and who undergoes a fall that evokes pity from the audience. Carnell points out that Behn's tragic novels focus instead on the plight of little-known women and the private world of the household; even in her few novels featuring male protagonists, Behn insists on the importance of the crimes these otherwise heroic figures commit in the domestic sphere. Moreover, according to Carnell, Behn questioned the view promulgated by monarchist dramatic tragedies such as Dryden's: that the envisioned "public" political ideal—passive obedience to the nation's king—ought to be mirrored in the private sphere, with family members wholly obedient to a male head of household. Carnell sees Behn's novels not only as rejecting the model of patriarchal and hierarchical family order, but also as warning that insisting on such a parallel can result in real tragedy befalling the members of the domestic sphere. According to Carnell, Behn's choice of

literary form underscores the differences between her own approach to crafting a tragic story and that taken in the dramatic tragedies, with their artificial distinction between the public and private spheres. Behn's novels engage in the political dialogue of her era by demonstrating that the good of the nation ultimately encompasses more than the good of the public figures who rule it.

3. The passage is primarily concerned with
 - A. tracing how Behn's view of the nature of tragedy changed over time
 - B. explaining one author's view of Behn's contribution to the development of an emerging literary form
 - C. differentiating between the early and the late literary works of Behn
 - D. contrasting the approaches to tragedy taken by Behn and by Dryden
 - E. presenting one scholar's explanation for a major development in Behn's literary career

4. The passage suggests that Carnell sees Behn's novels featuring male protagonists as differing from dramatic tragedies such as Dryden's featuring male protagonists in that the former
 - A. depict these characters as less than heroic in their public actions
 - B. emphasize the consequences of these characters' actions in the private sphere
 - C. insist on a parallel between the public and the private spheres
 - D. are aimed at a predominantly female audience
 - E. depict family members who disobey these protagonists

5. The passage suggests that Carnell believes Behn held which of the following attitudes about the relationship between the private and public spheres?
 - A. The private sphere is more appropriate than is the public sphere as the setting for plays about political events.
 - B. The structure of the private sphere should not replicate the hierarchical order of the public sphere.
 - C. Actions in the private sphere are more fundamental to ensuring the good of the nation than are actions in the public sphere.
 - D. Crimes committed in the private sphere are likely to cause tragedy in the public sphere rather than vice versa.
 - E. The private sphere is the mirror in which issues affecting the public sphere can most clearly be seen.

6. It can be inferred from the passage that the "artificial distinction"(the third from the last line) refers to the
 - A. practice utilized in dramatic tragedies of providing different structural models for the public and the private spheres
 - B. ideology of many dramatic tragedies that advocate passive obedience only in the private sphere and not in the public sphere
 - C. convention that drama ought to concern events in the public sphere and that novels ought to concern events in the private sphere
 - D. assumption made by the authors of conventional dramatic tragedies that legitimate tragic action occurs only in the public sphere
 - E. approach taken by the dramatic tragedies in depicting male and female characters differently, depending on whether their roles were public or private

Nineteenth-century architect Eugène-Emmanuel Viollet-le-Duc contended that Paris's Notre-Dame cathedral, built primarily in the late twelfth century, was supported from the very beginning by a system of flying buttresses — a series of exterior arches (flyers) and their supports (buttresses) — which permitted the construction of taller vaulted

buildings with slimmer walls and interior supports than had been possible previously. Other commentators insist, however, that Notre-Dame did not have flying buttresses until the thirteenth or fourteenth century, when they were added to update the building aesthetically and correct its structural flaws. Although post-twelfth-century modifications and renovations complicate efforts to resolve this controversy — all pre-fifteenth-century flyers have been replaced, and the buttresses have been rebuilt and/or resurfaced — it is nevertheless possible to tell that both the nave and the choir, the church's two major parts, have always had flying buttresses. It is clear, now that nineteenth-century paint and plaster have been removed, that the nave's lower buttresses date from the twelfth century. Moreover, the choir's lower flyers have chevron (zigzag) decoration. Chevron decoration, which was characteristic of the second half of the twelfth century and was out of favor by the fourteenth century, is entirely absent from modifications to the building that can be dated with confidence to the thirteenth century.

7. The passage is primarily concerned with
 - A. tracing the development of a controversy
 - B. discussing obstacles to resolving a controversy
 - C. arguing in support of one side in a controversy
 - D. analyzing the assumptions underlying the claims made in a controversy
 - E. explaining why evidence relevant to a controversy has been overlooked

8. The claim of the "other commentators" (line 4) suggests that they believe which of the following about Notre-Dame?
 - A. It was the inspiration for many vaulted cathedrals built in the thirteenth and fourteenth centuries.
 - B. Its design flaws were not apparent until flying buttresses were added in the thirteenth or fourteenth century.
 - C. Its flying buttresses are embellished with decoration characteristic of the thirteenth and fourteenth centuries.
 - D. It had been modified in some respects before flying buttresses were added in the thirteenth or fourteenth century.
 - E. It was originally constructed in an architectural style that was considered outmoded by the thirteenth or fourteenth century.

9. The author's argument concerning Notre-Dame's flying buttresses depends on which of the following assumptions about the choir's lower flyers?
 - A. They accurately reproduce the decoration on the choir's original lower flyers.
 - B. They have a type of decoration used exclusively for exterior surfaces.
 - C. They were the models for the choir's original upper flyers.
 - D. They were the models for the nave's original lower flyers.
 - E. They were constructed after the nave's flyers were constructed.

The average temperature of the lobster-rich waters off the coast of Foerkland has been increasing for some years. In warmer water, lobsters grow faster. In particular, lobster larvae take less time to reach the size at which they are no longer vulnerable to predation by young cod, the chief threat to their survival. Consequently, the survival rate of lobster larvae must be going up, and the lobster population in Foerkland's coastal waters is bound to increase.

10. Which of the following, if true, most seriously weakens the argument?
 - A. There are indications that in recent years the fishing fleet operating off the coast of Foerkland has been taking cod at an unsustainably high rate.

- B. The increase in water temperatures off Foerkland has not been as pronounced as the increase in average soil temperatures in Foerkland.
- C. Because of their speeded-up growth, lobsters now get large enough to be legal catch before they reach reproductive maturity.
- D. Even though lobsters grow faster in warmer waters, warmer waters have no effect on the maximum size to which a lobster can eventually grow.
- E. Cod are a cold-water species, and the increasing water temperatures have caused a northward shift in Foerkland's cod population.

Exercise 8. 18min

For hot desert locations with access to seawater, a new greenhouse design generates freshwater and cool air. Oriented to the prevailing wind, the front wall of perforated cardboard, moistened and cooled by a trickle of seawater pumped in, cools and moistens hot air blowing in. This cool, humidified air accelerates plant growth; little water evaporates from leaves. Though greenhouses normally capture the heat of sunlight, a double-layered roof, the inner layer coated to reflect infrared light outward, allows visible sunlight in but traps solar heat between the two layers. This heated air, drawn down from the roof, then mixes with the greenhouse air as it reaches a second sea-water-moistened cardboard wall at the back of the greenhouse. There the air absorbs more moisture, which then condenses on a metal wall cooled by seawater, and thus distilled water for irrigating the plants collects.

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

1. It can be inferred that the process described in the passage makes use of which of the following?
 - A. The tendency of hot air to rise
 - B. The directional movement of wind
 - C. The temperature differential between the sea and the desert

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

2. It can be inferred that the greenhouse roof is designed to allow for which of the following?
 - A. The avoidance of intense solar heat inside the greenhouse
 - B. The entry of sunlight into the greenhouse to make the plants grow
 - C. The mixture of heated air with greenhouse air to enhance the collection of moisture

The dusky salamander lives only in slow-moving streams where organic debris settles and accumulates. In almost all places in New York State where dusky salamanders used to live, suburban development has cleared uplands and put down asphalt. As a result, rainwater now runs directly into streams, causing increased flow that slows the accumulation of organic sediments. Therefore, it is probably the increased flow caused by suburban development that is responsible for the dusky salamander's virtual disappearance from New York State.

3. Which of the following, if true, most strongly supports the argument?
 - A. Since 1980 the suburban population of New York State has grown ten times faster than its urban population.
 - B. Dusky salamanders have disappeared in the past ten years from some suburban areas of New York State that were originally developed more than a century ago and that have not experienced significant development for decades.
 - C. The two-line salamander, a species that lives in both slow- and swift-moving waters, continues to thrive in streams in New York State from which dusky salamanders have disappeared.
 - D. Suburban development in New York State contributes significantly to pollution of local streams with lawn fertilizers that are poisonous to most small aquatic animals.
 - E. Much of the suburban development in New York State has been occurring in areas that never provided prime habitat for dusky salamanders.

Bracken fern has been spreading from its woodland strongholds for centuries, but the rate of encroachment into open countryside has lately increased alarmingly throughout northern and western Britain. A tough competitor, bracken reduces the value of grazing land by crowding out other vegetation. The fern is itself poisonous to livestock, and also encourages proliferation of sheep ticks, which not only attack sheep but also transmit diseases. No less important to

some people are bracken's effects on threatened habitats and on the use of uplands for recreational purposes, even though many appreciate its beauty.

Biological controls may be the only economic solution. One potentially cheap and self-sustaining method of halting the spread of bracken is to introduce natural enemies of the plant. Initially unrestrained by predators of their own, foreign predators are likely to be able to multiply rapidly and overwhelm intended targets. Because bracken occurs throughout the world, there is plenty of scope for this approach. Two candidates, both moths from the Southern Hemisphere, are now being studied.

Of course, biological control agents can safely be released only if it can be verified that they feed solely on the target weed. The screening tests have so far been fraught with difficulties. The first large shipment of moths succumbed to a disease. Growing enough bracken indoors is difficult, and the moths do not readily exploit cut stems. These are common problems with rearing insects for biological control.

Other problems can be foreseen. Policymakers need to consider many factors and opinions such as the cost of control compared to existing methods, and the impact of the clearance of bracken on the landscape, wildlife, and vegetation. In fact, scientists already have much of the information needed to assess the impact of biological control of bracken, but it is spread among many individuals, organizations, and government bodies. The potential gains for the environment are likely to outweigh the losses because few plants, insects, mammals, and birds live associated only with bracken, and many would benefit from a return of other vegetation or from a more diverse mosaic of habitats. But legal consequences of attempts at biological control present a potential minefield. For example, many rural tenants still have the right of "estoyers," the right to cut bracken as bedding for livestock and uses. What would happen if they were deprived of these rights? Once a biological control agent is released, it is difficult to control its speed. What consideration is due landowners who do not want to control bracken? According to law, the release of the biological control agents must be authorized by the secretary of state for the environment. But Britain lacks the legal and administrative machinery to assemble evidence for and against release.

4. According to the passage, which of the following can be inferred about sheep ticks?
 - A. They increase where bracken spreads.
 - B. They are dangerous only to sheep.
 - C. They are especially adapted to woodland.
 - D. They have no natural enemies.
 - E. They cause disease among bracken.
5. The author cites all of the following as disadvantages of bracken encroachment EXCEPT:
 - A. Bracken is poisonous to farm animals.
 - B. Bracken inhibits the growth of valuable vegetation.
 - C. Bracken indirectly helps spread certain diseases.
 - D. Bracken is aesthetically objectionable.
 - E. Bracken disturbs habitats that some people would like to protect.
6. The final paragraph can best be described as
 - A. a summation of arguments presented in previous paragraphs
 - B. the elimination of competing arguments to strengthen a single remaining conclusion
 - C. an enumeration of advantages to biological control
 - D. an expansion of the discussion from the particular example of bracken control to the general problem of

government regulation

E. an overview of the variety of factors requiring further assessment

7. It can be inferred from the passage that it is advantageous to choose as the biological control agent a predator that is foreign to the targeted environment for which of the following reasons?
- A. Conservation groups prefer not to favor one native species over another.
 - B. All local predators have already been overwhelmed by the target species.
 - C. Local predators cannot be effectively screened since they already exist in the wild.
 - D. There is little risk of an artificially introduced foreign predator multiplying out of control.
 - E. Native predator species are generally limited by their own predators.

Music critics have consistently defined James P. Johnson as a great early jazz pianist, originator of the 1920s Harlem “stride” style, and an important blues and jazz composer. In addition, however, Johnson was an innovator in classical music, composing symphonic music that incorporated American, and especially African American, traditions.

Such a blend of musical elements was not entirely new: by 1924 both Milhaud and Gershwin had composed classical works that incorporated elements of jazz. Johnson, a serious musician more experienced than most classical composers with jazz, blues, spirituals, and popular music, was particularly suited to expand Milhaud’s and Gershwin’s experiments. In 1927 he completed his first large-scale work, the blues- and jazz-inspired *Yamekraw*, which included borrowings from spirituals and Johnson’s own popular songs. *Yamekraw*, premiered successfully in Carnegie Hall, was major achievement for Johnson, becoming his most frequently performed extended work. It demonstrated vividly the possibility of assimilating contemporary popular music into the symphonic tradition.

8. Which of the following best describes the organization of the passage?
- A. A historical overview is presented, and a particular phenomenon is noted and analyzed.
 - B. A popular belief is challenged, and a rival interpretation is presented and supported.
 - C. A common viewpoint is presented and modified, and the modification is supported.
 - D. An observation is made and rejected, and evidence for that rejection is presented.
 - E. A common claim is investigated, and an alternative outlook is analyzed and criticized.
9. The author suggests which of the following about most classical composers of the early 1920s?
- A. They were strongly influenced by the musical experiments of the Milhaud and Gershwin.
 - B. They had little working familiarity with such forms of American music as jazz, blues, and popular songs.
 - C. They made few attempts to introduce innovations into the classical symphonic tradition.
10. The passage states that Johnson composed all of the following EXCEPT
- A. jazz works
 - B. popular songs
 - C. symphonic music
 - D. spirituals
 - E. blues pieces

Exercise 9. 18min

The attribution of early-nineteenth-century English fiction is notoriously problematic. Fewer than half of new novels published in Britain between 1800 and 1829 had the author's true name printed on the title page. Most of these titles have subsequently been attributed, either through the author's own acknowledgment of a previously anonymous or pseudonymous work, or through bibliographical research. One important tool available to researchers is the list of earlier works "by the author" often found on title pages. But such lists are as likely to create new confusion as they are to solve old problems. Title pages were generally prepared last in the publication process, often without full authorial assent, and in the last-minute rush to press, mistakes were frequently made.

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

1. The passage suggests that which of the following factors contributes to the "notoriously problematic" (line 1) nature of authorial attribution in early nineteenth-century English fiction?
 - A. The unwillingness of any writers to acknowledge their authorship of works that were originally published anonymously or pseudonymously
 - B. The possibility that the title page of a work may attribute works written by other authors to the author of that work
 - C. The possibility that the author's name printed on a title page is fictitious

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

2. The passage suggests that which of the following is frequently true of the title pages of early-nineteenth-century English novels?
 - A. The title page was prepared for printing in a hurried manner.
 - B. Material on the title page was included without the author's knowledge or approval.
 - C. Information on the title page was deliberately falsified to make the novel more marketable

The more definitions a given noun has, the more valuable is each one. Multiple definitions, each subtly different from all the others, convey multiple shades of meaning. They expand the uses of the word; language is enriched, thought is widened, and interpretations increase or dilate to fill the potentialities of association. The very impossibility of absoluteness in the definition of certain nouns adds to the levels of connotation they may reach. The inner life of a writer often says more than most readers can know; the mind of a reader can discover truths that go beyond the intent or perhaps even the comprehension of the writer. And all of it finds expression because a word can mean many things.

3. In the context in which it appears, "shades" (line 2) most nearly means
 - A. reminders
 - B. nuances
 - C. obscurities
 - D. coverings
 - E. degrees
4. The passage suggests that a writer's use of nouns that have multiple definitions can have which of the following effects on the relationship between writer and reader?
 - A. It can encourage the reader to consider how the writer's life might have influenced the work.

- B. It can cause the reader to become frustrated with the writer's failure to distinguish between subtle shades of meaning.
- C. It can allow the reader to discern in a work certain meanings that the writer did not foresee.
- D. It allows the writer to provide the reader with clues beyond the word itself in order to avoid ambiguity.
- E. It allows the writer to present unfamiliar ideas to the reader more efficiently.

In *Raisin in the Sun*, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization. Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work. Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led some critics to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism. Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation. But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than Du Bois' famous, well-considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

- 5. The author of the passage would probably consider which of the following judgments to be most similar to the reasoning of the critics mentioned in line 5?
 - A. The world is certainly flat; therefore, the person proposing to sail around it is unquestionably foolhardy.
 - B. Radioactivity cannot be directly perceived; therefore, a scientist could not possibly control it in a laboratory.
 - C. The painter of this picture could not intend it to be funny; therefore, its humor must result from a lack of skill.
 - D. Traditional social mores are beneficial to culture; therefore, anyone who deviates from them acts destructively.
 - E. Filmmakers who produce documentaries deal exclusively with facts; therefore, a filmmaker who reinterprets particular events is misleading us.
- 6. In which sentence of the passage does the author provide examples that reinforce an argument against a critical response cited earlier in the passage?
 - A. The first sentence ("In Raisin ...realization")
 - B. The second sentence ("Once we ... work")
 - C. The third sentence ("Indeed, ... eclecticism")
 - D. The fourth sentence ("Isaacs, ...reconciliation")
 - E. The fifth sentence ("But the ... roles")
- 7. In the context in which it appears, "realization" (line 2) most nearly means
 - A. understanding
 - B. accomplishment
 - C. depiction
 - D. recognition
 - E. discovery

Rain-soaked soil contains less oxygen than does drier soil. **The roots of melon plants perform less efficiently under the low-oxygen conditions present in rainsoaked soil.** When the efficiency of melon roots is impaired, the roots do not supply sufficient amounts of the proper nutrients for the plants to perform photosynthesis at their usual levels. It

follows that **melon plants have a lower-than-usual rate of photosynthesis when their roots are in rain-soaked soil**. When the photosynthesis of the plants slows, sugar stored in the fruits is drawn off to supply the plants with energy. Therefore, ripe melons harvested after a prolonged period of heavy rain should be less sweet than other ripe melons.

8. In the argument given, the two portions in boldface play which of the following roles?
- A. The first states the conclusion of the argument as a whole; the second provides support for that conclusion.
 - B. The first provides support for the conclusion of the argument as a whole; the second provides evidence that supports an objection to that conclusion.
 - C. The first provides support for an intermediate conclusion that supports a further conclusion stated in the argument; the second states that intermediate conclusion.
 - D. The first serves as an intermediate conclusion that supports a further conclusion stated in the argument; the second states the position that the argument as a whole opposes.
 - E. The first states the position that the argument as a whole opposes; the second supports the conclusion of the argument.

According to the conventional view, serfdom in nineteenth-century Russia inhibited economic growth. In this view Russian peasants' status as serfs kept them poor through burdensome taxes in cash, in labor, and in kind; through restrictions on mobility; and through various forms of coercion. Melton, however, argues that serfdom was perfectly compatible with economic growth, because many Russian serfs were able to get around landlords' rules and regulations. If serfs could pay for passports, they were usually granted permission to leave the estate. If they could pay the fine, they could establish a separate household; and if they had the resources, they could hire laborers to cultivate the communal lands, while they themselves engaged in trade or worked as migrant laborers in cities.

9. It can be inferred from the passage that the "rules and regulations" (lines 4-5) affecting serfdom in Russia involved
- A. responsibility for the work needed to accomplish certain defined tasks
 - B. restrictions on freedom of movement
 - C. limitations on the ability to set up an independent household
10. The sentence "If serfs ... estate" (lines 5) has which of the following functions in the passage?
- A. It provides support for an argument presented in the preceding sentence.
 - B. It provides evidence that helps undermine a view introduced in the first sentence.
 - C. It raises a question that the succeeding sentence will resolve.

Exercise 10. 18min

A tall tree can transport a hundred gallons of water a day from its roots deep underground to the treetop. Is this movement propelled by pulling the water from above or pushing it from below? The pull mechanism has long been favored by most scientists. First proposed in the late 1800s, the theory relies on a property of water not commonly associated with fluids: its tensile strength. Instead of making a clean break, water evaporating from treetops tugs on the remaining water molecules, with that tug extending from molecule to molecule all the way down to the roots. The tree itself does not actually push or pull; all the energy for lifting water comes from the sun's evaporative power.

1. Which of the following statements is supported by the passage?
 - A. The pull theory is not universally accepted by scientists.
 - B. The pull theory depends on one of water's physical properties.
 - C. The pull theory originated earlier than did the push theory.
2. The passage provides information on each of the following EXCEPT
 - A. when the pull theory originated
 - B. the amount of water a tall tree can transport
 - C. the significance of water's tensile strength in the pull theory
 - D. the role of the sun in the pull theory
 - E. the mechanism underlying water's tensile strength

While the influence of British magazines in shaping public opinion predates the nineteenth century, it was during the 1800s that mass distribution became possible and an explosion in periodical readership occurred, vastly increasing magazines' opinion-shaping powers. The role of magazines as arbiters of nineteenth-century taste is seen in their depictions of the London theater. The magazines accorded some legitimacy to East End working-class theaters that mirrored the format of the fashionable West End theaters serving middle- and upper-class audiences. However, the magazines also depicted music halls—which competed for patronage with all theaters—as places where crass entertainment corrupted spectators' taste and morals. Finally, they suggested that popular demand for substandard fare created a market unfriendly to higher expressions of dramatic art.

3. The author of the passage attributes the influence of British periodicals in shaping public opinion in the nineteenth century in part to
 - A. a growing public interest in reading opinion pieces
 - B. an increase in the relative number of readers from the middle and upper classes
 - C. changes in the way in which magazines were distributed
 - D. magazines' increased coverage of theater and popular entertainment
 - E. changes in magazine format that attracted a wider readership
4. The author of the passage mentions East End working-class theaters primarily in order to
 - A. illustrate a point about the ability of magazines to sway public opinion
 - B. contrast the kinds of entertainment presented in East End and West End theaters
 - C. make a point about how spectators' tastes influenced the offerings at different kinds of theaters
 - D. explain how magazines chose which kinds of entertainment to cover
 - E. identify factors that helped make certain theaters fashionable
5. In the context in which it appears, "accorded" (line 4) most nearly means
 - A. reconciled

- B. revealed
- C. granted
- D. verified
- E. maintained

As an example of the devastation wrought on music publishers by the photocopier, one executive noted that for a recent choral festival with 1,200 singers, the festival's organizing committee purchased only 12 copies of the music published by her company that was performed as part of the festival.

6. Which of the following, if true, most seriously weakens the support the example lends to the executive's contention that music publishers have been devastated by the photocopier?
- A. Only a third of the 1,200 singers were involved in performing the music published by the executive's company.
 - B. Half of the singers at the festival had already heard the music they were to perform before they began to practice for the festival.
 - C. Because of shortages in funding, the organizing committee of the choral festival required singers to purchase their own copies of the music performed at the festival.
 - D. Each copy of music that was performed at the festival was shared by two singers.
 - E. As a result of publicity generated by its performance at the festival, the type of music performed at the festival became more widely known.

Geese can often be seen grazing in coastal salt marshes. Unfortunately, their intense grazing removes the grassy covering, exposing marsh sediment; this increases evaporation, which in turn increases salt concentration in marsh sediments. Because of this increased concentration, regrowth of plants is minimal, leading to increased erosion, which leads to a decrease in the fertile topsoil, leading to even less regrowth. In time, the salt marsh becomes a mudflat. This process challenges one of the most widely held beliefs about the dynamics of salt-marsh ecosystems: supposedly, consumers such as geese do not play a large role in controlling the productivity of marsh systems. Rather, the standard view claims, marshes are controlled by bottom-up factors, such as nutrients and physical factors.

7. The author discusses "the standard view" (line 6-7) most likely in order to identify a view that
- A. explains the occurrence of the chain of events described in the passage
 - B. provides a summary of the chain of events described in the passage
 - C. is called into question by the chain of events described in the passage
 - D. advocates reassessment of the widely held belief described in the passage
 - E. is undermined by the widely held belief described in the passage
8. According to the passage, which of the following is a widely held belief about geese?
- A. They are not often seen grazing in coastal salt marshes.
 - B. They are not the primary consumers in salt-marsh ecosystems.
 - C. They play only a minor role in the productivity of salt-marsh ecosystems.
 - D. They are the primary determinants of which resources will thrive in coastal salt marshes.
 - E. They control the productivity of salt-marsh ecosystems through a bottom-up process.

Among academics involved in the study of Northern Renaissance prints (reproducible graphic artworks), an orthodox position can be said to have emerged. This position regards Renaissance prints as passive representations of their

time—documents that reliably record contemporary events, opinions, and beliefs—and therefore as an important means of accessing the popular contemporary consciousness. In contrast, pioneering studies such as those by Scribner and Moxey take a strikingly different approach, according to which Northern Renaissance prints were purposeful, active, and important shaping forces in the communities that produced them. Scribner, for example, contends that religious and political prints of the German Reformation (ca.1517–1555) functioned as popular propaganda: tools in a vigorous campaign aimed at altering people’s behavior, attitudes, and beliefs.

9. The passage suggests that an adherent to the “orthodox position” (line 1-2) would agree with which of the following statements?
- A. Northern Renaissance prints should be regarded as passive representations of their time.
 - B. Northern Renaissance prints were part of a campaign aimed at altering contemporary thinking.
 - C. Northern Renaissance prints provide reliable records of contemporary events, opinions, and beliefs.
10. Replacement of the word “passive” (line 2) which of the following words results in the least change in meaning for the passage?
- A. disinterested
 - B. submissive
 - C. flaccid
 - D. supine
 - E. unreceptive

Exercise 11. 18min

Computers cannot accurately predict climate change unless the mathematical equations fed into them adequately capture the natural meteorological processes they are intended to simulate. Moreover, there are processes that influence climate, such as modifications in land use, that scientists do not know how to simulate. The failure to incorporate such a process into a computer climate model can lead the model astray because a small initial effect can initiate a feedback cycle: a perturbation in one variable modifies a second variable, which in turn amplifies the original disturbance. An increase in temperature, for example, can boost the moisture content of the atmosphere, which then causes further warming because water vapor is a greenhouse gas.

1. The passage mentions which of the following as adversely affecting the accuracy of computer predictions of climate change?
 - A. Failure to allow for some of the processes that influence climate
 - B. Mathematical equations that do not accurately reflect natural phenomena
 - C. An overestimate of the role of feedback cycles
2. In the context in which it appears, “amplifies” (line 5) most nearly means
 - A. exacerbates
 - B. explicates
 - C. expatiates
 - D. adds detail to
 - E. makes louder

The decrease in responsiveness that follows continuous stimulation (adaptation) is common to all sensory systems, including olfaction. With continued exposure to chronically present ambient odors, individuals’ perception of odor intensity is greatly reduced. Moreover, these perceptual changes can be profound and durable. It is commonly reported that following extended absences from the odorous environment, reexposure may still fail to elicit perception at the original intensity.

Most research on olfactory adaptation examines relatively transient changes in stimulus detection or perceived intensity—rarely exceeding several hours and often less—but because olfactory adaptation can be produced with relatively short exposures, these durations are sufficient for investigating many parameters of the phenomenon. However, exposures to odors in natural environments often occur over far longer periods, and the resulting adaptations may differ qualitatively from short-term olfactory adaptation. For example, studies show that even brief periods of odorant stimulation produce transient reductions in receptors in the olfactory epithelium, a process termed “receptor fatigue.” Prolonged odor stimulation, however, could produce more long-lasting reductions in response, possibly involving structures higher in the central nervous system pathway.

3. According to the passage, the phenomenon of olfactory adaptation may cause individuals who are reexposed to an odorous environment after an extended absence to
 - A. experience a heightened perception of the odor
 - B. perceive the odor as being less intense than it was upon first exposure
 - C. return to their original level of perception of the odor
 - D. exhibit a decreased tolerance for the odorous environment
 - E. experience the phenomenon of adaptation in other sensory systems
4. The passage asserts which of the following about the exposures involved in the “research on olfactory adaptation” (line 6)?

- A. The exposures are of long enough duration for researchers to investigate many aspects of olfactory adaptation.
 - B. The exposures have rarely consisted of reexposures following extended absences from the odorous environment.
 - C. The exposures are intended to reproduce the relatively transient olfactory changes typical of exposures to odors in natural environments.
 - D. Those exposures of relatively short duration are often insufficient to produce the phenomenon of receptor fatigue in study subjects.
 - E. Those exposures lasting several hours produce reductions in receptors in the olfactory epithelium that are similar to the reductions caused by prolonged odor stimulation.
5. The author of the passage discusses “receptor fatigue” (the last line but one) primarily in order to
- A. explain the physiological process through which long-lasting reductions in response are thought to be produced
 - B. provide an example of a process that subjects would probably not experience during a prolonged period of odorant stimulation
 - C. help illustrate how the information gathered from most olfactory research may not be sufficient to describe the effects of extended exposures to odors
 - D. show how studies of short-term olfactory adaptation have only accounted for the reductions in response that follow relatively brief absences from an odorous environment
 - E. qualify a statement about the severity and duration of the perceptual changes caused by exposure to chronically present ambient odors

Recently an unusually high number of dolphins have been found dead of infectious diseases, and most of these had abnormally high tissue concentrations of certain compounds that, even in low concentrations, reduce dolphins' resistance to infection. The only source of these compounds in the dolphins' environment is boat paint. Therefore, since dolphins rid their bodies of the compounds rapidly once exposure ceases, their mortality rate should decline rapidly if such boat paints are banned.

6. Which of the following, if true, most strengthens the argument?
- A. The levels of the compounds typically used in boat paints today are lower than they were in boat paints manufactured a decade ago.
 - B. In high concentrations, the compounds are toxic to many types of marine animals.
 - C. The compounds break down into harmless substances after a few months of exposure to water or air.
 - D. High tissue levels of the compounds have recently been found in some marine animals, but there is no record of any of those animals dying in unusually large numbers recently.
 - E. The compounds do not leach out of the boat paint if the paint is applied exactly in accordance with the manufacturer's directions.

While chocolate was highly esteemed in Mesoamerica, where it originated, its adoption in Europe was initially slow. There is a common belief that Europeans needed to “transform” chocolate to make it appetizing. However, while Spaniards did put sugar, which was unknown to indigenous Americans, into chocolate beverages, this additive was not completely innovative. Mesoamericans were already sweetening chocolate with honey, and the step from honey to sugar—increasingly more available than honey because of expanding sugar plantations in the Americas—is a small one. Likewise, although Spaniards adjusted Mesoamerican recipes by using European spices, the spices chosen

suggest an attempt to replicate harder-to-find native flowers. There is no indication the Spaniards deliberately tried to change the original flavor of chocolate.

7. The author of the passage refers to the use of honey primarily to
- A. identify the origins of an additive previously untried by Europeans
 - B. present an example of a product that was unknown to Europeans
 - C. correct the misapprehension that Mesoamericans used a sweetener that was not available in Europe
 - D. provide an example of an ingredient that was in the process of being displaced by a substitute
 - E. explain why the Spanish use of sugar in chocolate was not a sign of a need to transform chocolate
8. Which sentence presents a misconception that the passage challenges?
- A. The second (“There is appetizing”)
 - B. The third (“However innovative”)
 - C. The fourth (“Mesoamericans one”)
 - D. The fifth (“Likewise flowers”)
 - E. The sixth (“There is chocolate”)

Biologists generally agree that birds and dinosaurs are somehow related to one another. The agreement ends there. Hypotheses regarding dinosaurian and avian evolution are unusually diverse—and often at odds with one another. Confusion consequently reigns over a broad spectrum of unanswered questions dealing with avian origins and the biology of dinosaurs and early birds. This confusion has been exacerbated by a paucity of serious attempts to synthesize and evaluate available data on the details of avian and dinosaurian evolution. Too often, the job of summarizing current knowledge of these subjects has fallen to well-meaning but naïve lay authors or reporters. Consequently, both the public and the scientific community have often been misled by widespread dissemination of sensational but weakly founded hypotheses.

9. The passage suggests that which of the following could help remedy the problem described in the final sentence
- A. An article written by a biologist for the general public summarizing current theories about avian and dinosaurian evolution
 - B. A close examination of available data on avian and dinosaurian evolution
 - C. A new hypothesis regarding the connection between avian and dinosaurian evolution
10. In the context in which it appears, “sensational”(the last line) most nearly means
- A. dramatic
 - B. false
 - C. excellent
 - D. eminent
 - E. horrifying

Exercise 12. 18min

A portrait type that appeared with relentless frequency in eighteenth-century England is the familiar image of a gentleman poised with one hand inside his partially unbuttoned waistcoat. Standard interpretations of this portrait posture offer observations of correspondence—demonstrating either that it mirrors actual social behavior or that it borrows from classical statuary. Such explanations, however, illuminate neither the source of this curious convention nor the reason for its popularity. It is true that in real life the “hand-in” was a common stance for elite men. Still, there were other ways of comporting the body that did not become winning portrait formulas. And even if the “hand-in” portrait does resemble certain classical statues, what accounts for the adoption of this particular pose?

1. In the context of the passage as a whole, the primary function of the sentence in lines 5-6 (“It is ... men”) is to
 - A. emphasize the influence of a particular social class on the conventions of eighteenth-century English portraiture
 - B. account for the origin of a particular type of behavior frequently represented in eighteenth-century English portraiture
 - C. acknowledge a historical basis for two competing hypotheses about a particular portrait type
 - D. question the relevance of certain evidence frequently cited in support of an explanation for a particular portrait type
 - E. concede that one explanation for the prevalence of a particular portrait type has a basis in fact
2. Which of the following might provide an explanation for the popularity of hand-in portraits that would satisfy the author of the passage?
 - A. An eighteenth-century English etiquette manual discussing the social implications of the “hand-in” stance
 - B. A comprehensive catalogue of eighteenth-century English portraits that showed what proportion of portraits depicted gentlemen in the “hand-in” stance
 - C. A passage from an eighteenth-century English novel in which a gentleman considers what stance to adopt when his portrait is painted

In the 1980s, neuroscientists studying the brain processes underlying our sense of conscious will compared subjects’ judgments regarding their subjective will to move (W) and actual movement (M) with objective electroencephalographic activity called readiness potential, or RP. As expected, W preceded M: subjects consciously perceived the intention to move as preceding a conscious experience of actually moving. This might seem to suggest an appropriate correspondence between the sequence of subjective experiences and the sequence of the underlying events in the brain. But researchers actually found a surprising temporal relation between subjective experience and objectively measured neural events: in direct contradiction of the classical conception of free will, neural preparation to move (RP) preceded conscious awareness of the intention to move (W) by hundreds of milliseconds.

3. Based on information contained in the passage, which of the following chains of events would most closely conform to the classical conception of free will?
 - A. W followed by RP followed by M
 - B. RP followed by W followed by M
 - C. M followed by W followed by RP
 - D. RP followed by M followed by W
 - E. RP followed by W and M simultaneously
4. In the context in which it appears, “temporal” (line 6) most nearly means
 - A. secular

- B. mundane
- C. numerical
- D. physiological
- E. chronological

5. The author of the passage mentions the classical conception of free will primarily in order to
- A. argue that earlier theories regarding certain brain processes were based on false assumptions
 - B. suggest a possible flaw in the reasoning of neuroscientists conducting the study discussed in the passage
 - C. provide a possible explanation for the unexpected results obtained by neuroscientists
 - D. cast doubt on neuroscientists' conclusions regarding the temporal sequence of brain processes
 - E. indicate the reason that the results of the neuroscientists' study were surprising

In 1998 the United States Department of Transportation received nearly 10,000 consumer complaints about airlines; in 1999 it received over 20,000. Moreover, the number of complaints per 100,000 passengers also more than doubled. In both years the vast majority of complaints concerned flight delays, cancellations, mishandled baggage, and customer service. Clearly, therefore, despite the United States airline industry's serious efforts to improve performance in these areas, passenger dissatisfaction with airline service increased significantly in 1999.

6. Which of the following, if true, most seriously weakens the argument?
- A. Although the percentage of flights that arrived on time dropped slightly overall, from 77 percent in 1998 to 76 percent in 1999, some United States airlines' 1999 on-time rate was actually better than their 1998 on-time rate.
 - B. The number of passengers flying on United States airlines was significantly higher in 1999 than in 1998.
 - C. Fewer bags per 1,000 passengers flying on United States airlines were lost or delayed in 1999 than in 1998.
 - D. The appearance in 1999 of many new Internet sites that relay complaints directly to the Department of Transportation has made filing a complaint about airlines much easier for consumers than ever before.
 - E. Although the number of consumer complaints increased for every major United States airline in 1999, for some airlines the extent of the increase was substantial, whereas for others it was extremely small.

Historians credit repeated locust invasions in the nineteenth century with reshaping United States agriculture west of the Mississippi River. Admonished by government entomologists, farmers began to diversify. Wheat had come to nearly monopolize the region, but it was particularly vulnerable to the locusts. In 1873, just before the locusts' most withering offensive, nearly two-thirds of Minnesota farmland was producing wheat; by the invasions' last year, that fraction had dropped to less than one-sixth. Farmers learned that peas and beans were far less vulnerable to the insects, and corn was a more robust grain than wheat. In addition to planting alternative crops, many farmers turned to dairy and beef production. Although pastures were often damaged by the locusts, these lands were almost always left in better shape than the crops were.

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

7. According to the passage, before the recommendations by the government entomologists, which of the following was true about farming west of the Mississippi River?
- A. Farmers focused primarily on growing wheat.
 - B. Peas and beans had not yet been planted in the region.
 - C. A relatively small portion of farmland was devoted to crops other than wheat.

8. In the context in which it appears, “robust” (line 6) most nearly means
- A. crude
 - B. demanding
 - C. productive
 - D. vigorous
 - E. rich

Objectively, of course, the various ecosystems that sustain life on the planet proceed independently of human agency, just as they operated before the hectic ascendancy of *Homo sapiens*. But it is also true that it is difficult to think of a single such system that has not, for better or worse, been substantially modified by human culture. Nor is this simply the work of the industrial centuries. It has been happening since the days of ancient Mesopotamia. It is coeval with the origins of writing, and has occurred throughout our social existence. And it is this irreversibly modified world, from the polar caps to the equatorial forests, that is all the nature we have.

9. It can be inferred from the passage that the author would agree with which of the following statements?
- A. Over time, the impact of human culture on the natural world has been largely benign.
 - B. It is a mistake to think that the natural world contains many areas of pristine wilderness.
 - C. The only substantial effects that human agency has had on ecosystems have been inadvertent.
10. The author mentions “ancient Mesopotamia” primarily in order to
- A. provide some geographical and historical context for an earlier claim about the ascendancy of *Homo sapiens*
 - B. support the idea that the impact of human culture on nature was roughly the same in the ancient world as in later times
 - C. identify a place where the relationship between culture and nature was largely positive
 - D. emphasize the extent to which the modification of nature by human culture preceded the industrial period
 - E. make a connection between the origins of writing and other aspects of human cultural development

Exercise 13. 18min

The most plausible justification for higher taxes on automobile fuel is that fuel consumption harms the environment and thus adds to the costs of traffic congestion. But the fact that burning fuel creates these “negative externalities” does not imply that no tax on fuel could ever be too high. Economics is precise about the tax that should, in principle, be levied to deal with negative externalities: the tax on a liter of fuel should be equal to the harm caused by using a liter of fuel. If the tax is more than that, its costs (including the inconvenience to those who would rather have used their cars) will exceed its benefits (including any reduction in congestion and pollution).

1. In the context in which it appears, “exceed” most nearly means
 - A. outstrip
 - B. magnify
 - C. delimit
 - D. offset
 - E. supplant

2. Which of the following best characterizes the function of the indicated portion of the passage?
 - A. It restates a point made earlier in the passage.
 - B. It provides the evidence on which a theory is based.
 - C. It presents a specific application of a general principle.
 - D. It summarizes a justification with which the author disagrees.
 - E. It suggests that the benefits of a particular strategy have been overestimated.

Historian F. W. Maitland observed that legal documents are the best—indeed, often the only—available evidence about the economic and social history of a given period. Why, then, has it taken so long for historians to focus systematically on the civil (noncriminal) law of early modern (sixteenth- to eighteenth-century) England? Maitland offered one reason: the subject requires researchers to “master an extremely formal system of pleading and procedure.” Yet the complexities that confront those who would study such materials are not wholly different from those recently surmounted by historians of criminal law in England during the same period. Another possible explanation for historians’ neglect of the subject is their widespread assumption that most people in early modern England had little contact with civil law. If that were so, the history of legal matters would be of little relevance to general historical scholarship. But recent research suggests that civil litigation during the period involved artisans, merchants, professionals, shopkeepers, and farmers, and not merely a narrow, propertied, male elite. Moreover, the later sixteenth and early seventeenth centuries saw an extraordinary explosion in civil litigation by both women and men, making this the most litigious era in English history on a per capita basis.

3. The passage suggests that the history of criminal law in early modern England differs from the history of civil law during that same period in that the history of criminal law
 - A. is of more intellectual interest to historians and their readers
 - B. has been studied more thoroughly by historians
 - C. is more relevant to general social history
 - D. involves the study of a larger proportion of the population
 - E. does not require the mastery of an extremely formal system of procedures

4. The author of the passage mentions the occupations of those involved in civil litigation in early modern England most likely in order to

- A. suggest that most historians' assumptions about the participants in the civil legal system during that period are probably correct
 - B. support the theory that more people participated in the civil legal system than the criminal legal system in England during that period
 - C. counter the claim that legal issues reveal more about a country's ordinary citizens than about its elite
 - D. illustrate the wide range of people who used the civil legal system in England during that period
 - E. suggest that recent data on people who participated in early modern England's legal system may not be correct
5. The author of the passage suggests which of the following about the "widespread assumption" (line 7)?
- A. Because it is true, the history of civil law is of as much interest to historians focusing on general social history as to those specializing in legal history.
 - B. Because it is inaccurate, the history of civil law in early modern England should enrich the general historical scholarship of that period.
 - C. It is based on inaccurate data about the propertied male elite of early modern England.
 - D. It does not provide a plausible explanation for historians' failure to study the civil law of early modern England.
 - E. It is based on an analogy with criminal law in early modern England.

Last year, Mayor Stephens established a special law-enforcement task force with the avowed mission of eradicating corruption in city government. The mayor's handpicked task force has now begun prosecuting a dozen city officials. Since all of these officials were appointed by Mayor Bixby, Mayor Stephens' predecessor and longtime political foe, it is clear that those being prosecuted have been targeted because of their political affiliations.

6. Which of the following, if true, most weakens the editorial's argument?
- A. Complaints of official corruption in city government have decreased since the anticorruption task force began operating.
 - B. Former mayor Bixby did not publicly oppose Mayor Stephens' establishment of the anticorruption task force.
 - C. Almost all of the officials who have served in city government for any length of time are appointees of Mayor Bixby.
 - D. All of the members of the anticorruption task force had other jobs in city government before the task force was formed.
 - E. During the last mayoral election campaign, then-Mayor Bixby hotly disputed the current mayor's claim that there was widespread corruption in city government.

In early-twentieth-century England, it was fashionable to claim that only a completely new style of writing could address a world undergoing unprecedented transformation—just as one literary critic recently claimed that only the new "aesthetic of exploratory excess" can address a world under- going well, you know. Yet in early-twentieth century England, T. S. Eliot, a man fascinated by the "presence" of the past, wrote the most innovative poetry of his time. The lesson for today's literary community seems obvious: a reorientation toward tradition would benefit writers no less than readers. But if our writers and critics indeed respect the novel's rich tradition (as they claim to), then why do they disdain the urge to tell an exciting story?

7. The author of the passage suggests that present-day readers would particularly benefit from which of the following changes on the part of present-day writers and critics?

- A. An increased focus on the importance of engaging the audience in a narrative
 - B. Modernization of the traditional novelistic elements already familiar to readers
 - C. Embracing aspects of fiction that are generally peripheral to the interest of readers
 - D. A greater recognition of how the tradition of the novel has changed over time
 - E. A better understanding of how certain poets such as Eliot have influenced fiction of the present time
8. In the context of the passage as whole, “address” (lines 2 and 3) is closest in meaning to
- A. reveal
 - B. belie
 - C. speak to
 - D. direct attention toward
 - E. attempt to remediate

Some universities have created environmental studies programs that can be marketed to prospective students but that suffer from too little administrative support, limited faculty resources, and a lack of careful deliberation over the hard choices. In the short term, this institutional strategy can pay rich dividends: at minimal expense a university can lay claim to an environmental studies program and attract new students or accommodate the interest of existing ones, perhaps with the full intention of bringing additional resources to bear in later years. As the number of students in these skeleton programs grows, however, the flimsy administrative and curricular scaffolding begins to buckle, leading to an anything-goes strategy that degenerates into curricular incoherence.

9. The passage implies which of the following about the relationship between students and environmental studies programs?
- A. Students new to a university are more likely to be aware of environmental studies programs than existing students are.
 - B. Students prefer curricular incoherence in environmental studies programs to rigid administrative decision making.
 - C. The curricular flexibility of an environmental studies program is an attraction for new students.
 - D. If a university offers an environmental studies program, then students will enroll in it.
 - E. New students will guarantee the success of an environmental studies program.
10. The passage suggests which of the following about “skeleton programs” in environmental studies?
- A. They may fail to attract prospective students.
 - B. At some point they are likely to collapse into curricular confusion.
 - C. They may pay rich dividends in short term.

Exercise 14. 18min

In 1996, scientists caused an experimental flood of the Colorado River by releasing water from Glen Canyon Dam above the Grand Canyon. Because an unintentional flood in 1983 had reduced the river's introduced population of nonnative trout, biologists were concerned that the experimental flood would wash many fish, native and nonnative, downstream. To find out, biologists placed nets in the river. The nets captured a few more trout than they would have without the flood but did not show substantial flushing of native fish, whose ancestors had, after all, survived many larger natural floods. The biologists surmised that the native species (and most of the trout) must have quickly retreated to protected areas along the riverbank.

1. Which of the following, if true, would make the information presented in the passage compatible with the experimental flood's in fact having caused substantial flushing of native fish?
 - A. Many of the native fish are too small to have been captured by the nets.
 - B. There had been an increase from normal levels in the native fish population prior to the flood.
 - C. The native fish in the Colorado are much stronger swimmers than taxonomically similar fish in other rivers in the region.
 - D. The unintentional flood of 1983 had not affected the river's trout population as much as was originally thought.
 - E. The experimental flood raised the water level much less than a typical natural flood would have.
2. According to the passage, which of the following is true of the Colorado River flood of 1983?
 - A. The flood had a negative effect on the river's trout population.
 - B. There was substantial flushing of the river's native fish population during the flood.
 - C. Unlike the 1996 flood, it was not deliberately caused for scientific research purposes.

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

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

3. 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.
4. 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
5. 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.

Electric washing machines, first introduced in the United States in 1925, significantly reduced the amount of time spent washing a given amount of clothes, yet the average amount of time households spent washing clothes increased after 1925. This increase is partially accounted for by the fact that many urban households had previously sent their clothes to professional laundries. But the average amount of time spent washing clothes also increased for rural households with no access to professional laundries.

6. Which of the following, if true, most helps to explain why the time spent washing clothes increased in rural areas?
- A. People with access to an electric washing machine typically wore their clothes many fewer times before washing them than did people without access to electric washing machines.
 - B. Households that had sent their clothes to professional laundries before 1925 were more likely than other households to purchase an electric washing machine when they became available.
 - C. People living in urban households that had previously sent their clothes to professional laundries typically owned more clothes than did people living in rural households.
 - D. The earliest electric washing machines required the user to spend much more time beside the machine than do modern electric washing machines.
 - E. In the 1920s and 1930s the proportion of rural households with electricity was smaller than the proportion of urban households with electricity.

The nearly circular orbits of planets in our solar system led scientists to expect that planets around other stars would also reside in circular orbits. However, most known extrasolar planets reside in highly elongated, not circular, orbits. Why? The best clue comes from comets in our solar system. Comets formed in circular orbits but were gravitationally flung into their present-day elliptical orbits when they ventured too close to planets. Astronomers suspect that pairs of planets also engage in this slingshot activity, leaving them in disturbed, elliptical orbits. If two planets form in

close orbits, one will be scattered inward (toward its star), the other outward. They will likely then travel close enough to neighboring planets to disturb their orbits also.

7. According to the passage, which of the following factors help account for the elliptical shape of the orbits of extrasolar planets?
- A. The planets' formation in close proximity to other planets
 - B. The gravitational influence of planets whose original orbits have been disturbed
 - C. The gravitational influence of comets
8. The passage suggests that two planets formed in close orbits that engaged in "slingshot activity" (lines 5) would be likely to
- A. deflect away from each other
 - B. change the shape of each other's orbit
 - C. affect the orbits of any neighboring planets

Feelings of hopelessness among medieval workers trapped in the poverty cycle gradually lessened as it became possible for women's labor to supplement a family's money income by more than pennies. By 1300, women spinners could be found working on their own for wealthy sponsors, even after the introduction in Italy and France of prohibition against advancing money for supplies to women spinners. Historians have usually interpreted this prohibition simply as evidence of women's economic subjection, since it obliged them to turn to usurers; however, it was also almost certainly a response to a trend toward differential reward for women's higher skill. Yarn can be spun irregularly and lumpily, but perfectly smooth yarn is worth more. Working for merchant entrepreneurs on time rates, women had been paid hardly more than children; working as entrepreneurs themselves and producing good work by the piece, they could break into the rational system of differential rewards.

9. It can be inferred from the passage that the author views the system of paying all workers equally on time rates as
- A. unfair and not rational
 - B. undesirable but unavoidable
 - C. efficient and profitable
 - D. advantageous to most women workers
 - E. evidence of a trend toward a more modern wage system
10. The passage implies which of the following about women spinners in medieval Europe?
- A. Most of them worked independently for wealthy sponsors.
 - B. They were not typical of medieval women entrepreneurs.
 - C. Some of them were paid for their work after it was done, according to its value.
 - D. They would have been able to contribute substantial amounts to their families incomes were it not for the prohibition against advancing money to them.
 - E. They were inevitably disadvantaged in the marketplace because they were obliged to obtain money for their supplies from usurers.

Exercise 15. 18min

Arctic sea ice comes in two varieties. Seasonal ice forms in winter and then melts in summer, while perennial ice persists year-round. To the untrained eye, all sea ice looks similar, but by licking it, one can estimate how long a particular piece has been floating round. When ice begins to form in seawater, it forces out salt, which has no place in the crystal structure. As the ice gets thicker, the rejected salt collects in tiny pockets of brine too highly concentrated to freeze. A piece of first-year ice will taste salty. Eventually, if the ice survives, these pockets of brine drain out through fine, veinlike channels, and the ice becomes fresher; multiyear ice can even be melted and drunk.

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

1. The passage mentions which of the following as being a characteristic of seasonal ice?
 - A. It is similar in appearance to perennial ice.
 - B. It is typically filled with fine, veinlike channels.
 - C. It tastes saltier than perennial ice.

2. 14. In the context in which it appears, “fine” (line 6) most nearly means
 - A. acceptable
 - B. elegant
 - C. precise
 - D. pure
 - E. small

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.

3. 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

4. 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
5. Which of the following, if true, would most discredit the new theory as described in the passage?
- A. The exact mechanism by which a star becomes a supernova is not yet completely known and may even differ for different stars.
 - B. Chains of star-forming regions like those postulated in the new theory have been observed in the vicinity of dense clouds of gas and dust.
 - C. The most massive stars formed from supernova explosions are unlikely to evolve into supernovas.
 - D. Computer simulations of supernovas provide a poor picture of what occurs just before a supernova explosion.
 - E. A density wave cannot compress clouds of gas and dust to a density high enough to create a star.

Sparva, unlike Treland's other provinces, requires automobile insurers to pay for any medical treatment sought by someone who has been involved in an accident; in the other provinces, insurers pay for nonemergency treatment only if they preapprove the treatment. Clearly, Sparva's less restrictive policy must be the explanation for the fact that altogether insurers there pay for far more treatments after accidents than insurers in other provinces, even though Sparva does not have the largest population.

6. Which of the following, if true, most strengthens the argument?
- A. Car insurance costs more in Sparva than in any other province.
 - B. The cost of medical care in Sparva is higher than the national average.
 - C. Different insurance companies have different standards for determining what constitutes emergency treatment.
 - D. Fewer insurance companies operate in Sparva than in any other province.
 - E. There are fewer traffic accidents annually in Sparva than in any of the provinces of comparable or greater population.

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

7. Which of the following can be inferred from the passage about kelp forests in the Bering and Copper islands between 1750 and 1768?
- A. They were reduced significantly.
 - B. They disappeared entirely from the region.
 - C. They were the primary food source for sea otters.
 - D. They were harvested in record numbers by humans
 - E. They increased pressure on sea urchin populations.
8. According to the passage, it is likely that during the mid-1700s, sea urchin populations near the Bering and Copper islands
- A. were diminished by sea cow predation

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

Analyzing the physics of dance can add fundamentally to a dancer's skill. Although dancers seldom see themselves totally in physical terms—as body mass moving through space under the influence of well-known forces and obeying physical laws—neither can they afford to ignore the physics of movement. For example, no matter how much a dancer wishes to leap off the floor and then start turning, the law of conservation of angular momentum absolutely prevents such a movement.

Some movements involving primarily vertical or horizontal motions of the body as a whole, in which rotations can be ignored, can be studied using simple equations of linear motion in three dimensions. However, rotational motions require more complex approaches that involve analyses of the way the body's mass is distributed, the axes of rotation involved in different types of movement, and the sources of the forces that produce the rotational movement.

9. The author mentions all of the following as contributing to an understanding of the physics of dance EXCEPT
- A. the law of conservation of angular momentum
 - B. analyses of the way in which the body's mass is distributed
 - C. equations of linear motion in three dimensions
 - D. analyses of the sources that produce rotational motions
 - E. the technical terms for movements such as leaps and turns
10. Analysis of which of the following would require the kind of complex approach described in the last sentence?
- A. A long leap across space
 - B. A short jump upward with a return to the same place
 - C. A sustained and controlled turn in place
 - D. Short, rapid steps forward and then backward without turning
 - E. Quick side steps in a diagonal line

Exercise 16. 20min

Echolocating bats emit sounds in patterns—characteristic of each species—that contain both frequency-modulated (FM) and constant-frequency (CF) signals. The broadband FM signals and the narrowband CF signals travel out to a target, reflect from it, and return to the hunting bat. In this process of transmission and reflection, the sounds are changed, and the changes in the echoes enable the bat to perceive features of the target.

The FM signals report information about target characteristics that modify the timing and the fine frequency structure, or spectrum, of echoes—for example, the target's size, shape, texture, surface structure, and direction in space. Because of their narrow bandwidth, CF signals portray only the target's presence and, in the case of some bat species, its motion relative to the bat's. Responding to changes in the CF echo's frequency, bats of some species correct in flight for the direction and velocity of their moving prey.

1. According to the passage, the information provided to the bat by CF echoes differs from that provided by FM echoes in which of the following ways?
 - A. Only CF echoes alert the bat to moving targets.
 - B. Only CF echoes identify the range of widely spaced targets.
 - C. Only CF echoes report the target's presence to the bat.
 - D. In some species, CF echoes enable the bat to judge whether it is closing in on its target.
 - E. In some species, CF echoes enable the bat to discriminate the size of its target and the direction in which the target is moving.
2. According to the passage, the configuration of the target is reported to the echolocating bat by changes in the
 - A. echo spectrum of CF signals
 - B. echo spectrum of FM signals
 - C. direction and velocity of the FM echoes
 - D. delay between transmission and reflection of the CF signals
 - E. relative frequencies of the FM and the CF echoes
3. The author presents the information concerning bat sonar in a manner that could be best described as
 - A. argumentative
 - B. commendatory
 - C. critical
 - D. disbelieving
 - E. objective
4. Which of the following best describes the organization of the passage?
 - A. A fact is stated, a process is outlined, and specific details of the process are described.
 - B. A fact is stated, and examples suggesting that a distinction needs correction are considered.
 - C. A fact is stated, a theory is presented to explain that fact, and additional facts are introduced to validate the theory.
 - D. A fact is stated, and two theories are compared in light of their explanations of this fact.
 - E. A fact is stated, a process is described, and examples of still another process are illustrated in detail.

Many objects in daily use have clearly been influenced by science, but their form and function, their dimensions and appearance, were determined by technologists, artisans, designers, inventors, and engineers—using non-scientific modes of thought. Many features and qualities of the objects that a technologist thinks about cannot be reduced to unambiguous verbal descriptions; they are dealt with in the mind by a visual, nonverbal process. In the development

of Western technology, it has been non-verbal thinking, by and large, that has fixed the outlines and filled in the details of our material surroundings. Pyramids, cathedrals, and rockets exist not because of geometry or thermodynamics, but because they were first a picture in the minds of those who built them.

The creative shaping process of a technologist's mind can be seen in nearly every artifact that exists. For example, in designing a diesel engine, a technologist might impress individual ways of nonverbal thinking on the machine by continually using an intuitive sense of rightness and fitness. What would be the shape of the combustion chamber? Where should the valves be placed? Should it have a long or short piston? Such questions have a range of answers that are supplied by experience, by physical requirements, by limitations of available space, and not least by a sense of form. Some decisions, such as wall thickness and pin diameter, may depend on scientific calculations, but the nonscientific component of design remains primary.

Design courses, then, should be an essential element in engineering curricula. Nonverbal thinking, a central mechanism in engineering design, involves perceptions, the stock-in-trade of the artist, not the scientist. Because perceptive processes are not assumed to entail "hard thinking," nonverbal thought is sometimes seen as a primitive stage in the development of cognitive processes and inferior to verbal or mathematical thought. But it is paradoxical that when the staff of the Historic American Engineering Record wished to have drawings made of machines and isometric views of industrial processes for its historical record of American engineering, the only college students with the requisite abilities were not engineering students, but rather students attending architectural schools. If courses in design, which in a strongly analytical engineering curriculum provide the background required for practical problem-solving, are not provided, we can expect to encounter silly but costly errors occurring in advanced engineering systems. For example, early models of high-speed railroad cars loaded with sophisticated controls were unable to operate in a snowstorm because a fan sucked snow into the electrical system. Absurd random failures that plague automatic control systems are not merely trivial aberrations; they are a reflection of the chaos that results when design is assumed to be primarily a problem in mathematics.

5. In the passage, the author is primarily concerned with
 - A. identifying the kinds of thinking that are used by technologists
 - B. stressing the importance of nonverbal thinking in engineering design
 - C. proposing a new role for nonscientific thinking in the development of technology
 - D. contrasting the goals of engineers with those of technologists
 - E. criticizing engineering schools for emphasizing science in engineering curricula
6. It can be inferred that the author thinks engineering curricula are
 - A. strengthened when they include courses in design
 - B. weakened by the substitution of physical science courses for courses designed to develop mathematical skills
 - C. strong because nonverbal thinking is still emphasized by most of the courses
 - D. strong despite the errors that graduates of such curricula have made in the development of automatic control systems
 - E. strong despite the absence of nonscientific modes of thinking
7. Which of the following statements best illustrates the main point of the passage?
 - A. When a machine like a rotary engine malfunctions, it is the technologist who is best equipped to repair it.
 - B. Each component of an automobile—for example, the engine or the fuel tank—has a shape that has been scientifically determined to be best suited to that component's function.
 - C. A telephone is a complex instrument designed by technologists using only nonverbal thought.

- D. The designer of a new refrigerator should consider the designs of other refrigerators before deciding on its final form.
- E. The distinctive features of a suspension bridge reflect its designer's conceptualization as well as the physical requirements of its site.
8. Which of the following statements would best serve as an introduction to the passage?
- A. The assumption that the knowledge incorporated in technological developments must be derived from science ignores the many non-scientific decisions made by technologists.
- B. Analytical thought is no longer a vital component in the success of technological development.
- C. As knowledge of technology has increased, the tendency has been to lose sight of the important role played by scientific thought in making decisions about form, arrangement, and texture.
- D. A movement in engineering colleges toward a technician's degree reflects a demand for graduates who have the nonverbal reasoning ability that was once common among engineers.
- E. A technologist thinking about a machine, reasoning through the successive steps in a dynamic process, can actually turn the machine over mentally.
9. The author calls the predicament faced by the Historic American Engineering Record "paradoxical" (lines 18) most probably because
- A. the publication needed drawings that its own staff could not make
- B. architectural schools offered but did not require engineering design courses for their students
- C. college students were qualified to make the drawings while practicing engineers were not
- D. the drawings needed were so complicated that even students in architectural schools had difficulty making them
- E. engineering students were not trained to make the type of drawings needed to record the development of their own discipline
10. According to the passage, random failures in automatic control systems are "not merely trivial aberrations" (the last line but one) because
- A. automatic control systems are designed by engineers who have little practical experience in the field
- B. the failures are characteristic of systems designed by engineers relying too heavily on concepts in mathematics
- C. the failures occur too often to be taken lightly
- D. designers of automatic control systems have too little training in the analysis of mechanical difficulties
- E. designers of automatic control systems need more help from scientists who have a better understanding of the analytical problems to be solved before such systems can work efficiently
11. The author uses the example of the early models of high-speed railroad cars primarily to
- A. weaken the argument that modern engineering systems have major defects because of an absence of design courses in engineering curricula
- B. support the thesis that the number of errors in modern engineering systems is likely to increase
- C. illustrate the idea that courses in design are the most effective means for reducing the cost of designing engineering systems
- D. support the contention that a lack of attention to the nonscientific aspects of design results in poor conceptualization by engineers
- E. weaken the proposition that mathematics is a necessary part of the study of design

Even after numerous products made with artificial sweeteners became available, sugar consumption per capita continued to rise. Now manufacturers are introducing fat-free versions of various foods that they claim have the taste and texture of the traditional high-fat versions. Even if the manufacturers' claim is true, given that the availability of sugar-free foods did not reduce sugar consumption, it is unlikely that the availability of these fat-free foods will reduce fat consumption.

12. Which of the following, if true, most seriously undermines the argument?
- A. Several kinds of fat substitute are available to manufacturers, each of which gives a noticeably different taste and texture to products that contain it.
 - B. The products made with artificial sweeteners did not taste like products made with sugar.
 - C. The foods brought out in sugar-free versions did not generally have reduced levels of fat, but many of the fat-free versions about to be introduced are low in sugar.
 - D. People who regularly consume products containing artificial sweeteners are more likely than others to consume fat-free foods.
 - E. Not all foods containing fat can be produced in fat-free versions.

Although several ancient cultures practiced mummification, mummies from ancient Egypt are generally more wellpreserved than mummies of similar antiquity from other cultures. One possible explanation for this difference is that the mummification techniques or materials 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.

13. Which of the following provide the most support for the argument?
- A. The materials used by ancient Egyptians for mummification were not used by any other ancient culture that practiced mummification.
 - B. Some ancient Egyptian mummies are better preserved than other ancient Egyptian mummies from around the same time.
 - C. No ancient people living in very damp areas practiced mummification.
 - D. Bodies from ancient Egyptian tombs dating from before the practice of mummification began are almost as well preserved as ancient Egyptian mummies.
 - E. Ancient mummies discovered in places other than Egypt have typically not been as well protected from the elements as ancient Egyptian mummies were.

Exercise 17. 19min

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. 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

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

8. 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
9. 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
10. The passage implies that if hive temperature had not returned to normal by the end of the study in question, a probable conclusion of the researchers would have been that
- A. up-regulation of temperature is a preventative measure against chalk brood
 - B. honeybees are incapable of purposely raising hive temperatures
 - C. *A. apis* cannot be completely eradicated through up-regulation of temperature alone
 - D. honeybee larvae have a mechanism to alert adult honeybees to the presence of *A. apis*
 - E. honeybee larvae may benefit from increased hive temperature even when there is no *A. apis* present
11. 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.

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 _____.

12. 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

Exercise 18. 20min

The Fourteenth Amendment to the United States Constitution, ratified in 1868, prohibits state governments from denying citizens the “equal protection of the laws.” Although precisely what the framers of the amendment meant by this equal protection clause remains unclear, all interpreters agree that the framers’ immediate objective was to provide a constitutional warrant for the Civil Rights Act of 1866, which guaranteed the citizenship of all persons born in the United States and subject to United States jurisdiction. This declaration, which was echoed in the text of the Fourteenth Amendment, was designed primarily to counter the Supreme Court’s ruling in *Dred Scott v. Sandford* that Black people in the United States could be denied citizenship. The act was vetoed by President Andrew Johnson, who argued that the Thirteenth Amendment, which abolished slavery, did not provide Congress with the authority to extend citizenship and equal protection to the freed slaves. Although Congress promptly overrode Johnson’s veto, supporters of the act sought to ensure its constitutional foundations with the passage of the Fourteenth Amendment.

The broad language of the amendment strongly suggests that its framers were proposing to write into the Constitution not a laundry list of specific civil rights but a principle of equal citizenship that forbids organized society from treating any individual as a member of an inferior class. Yet for the first eight decades of the amendment’s existence, the Supreme Court’s interpretation of the amendment betrayed this ideal of equality. In the Civil Rights Cases of 1883, for example, the Court invented the “state action” limitation, which asserts that “private” decisions by owners of public accommodations and other commercial businesses to segregate their facilities are insulated from the reach of the Fourteenth Amendment’s guarantee of equal protection under the law.

After the Second World War, a judicial climate more hospitable to equal protection claims culminated in the Supreme Court’s ruling in *Brown v. Board of Education* that racially segregated schools violated the equal protection clause of the Fourteenth Amendment. Two doctrines embraced by the Supreme Court during this period extended the amendment’s reach. First, the Court required especially strict scrutiny of legislation that employed a “suspect classification,” meaning discrimination against a group on grounds that could be construed as racial. This doctrine has broadened the application of the Fourteenth Amendment to other, nonracial forms of discrimination, for while some justices have refused to find any legislative classification other than race to be constitutionally disfavored, most have been receptive to arguments that at least some nonracial discriminations, sexual discrimination in particular, are “suspect” and deserve this heightened scrutiny by the courts. Second, the Court relaxed the state action limitation on the Fourteenth Amendment, bringing new forms of private conduct within the amendment’s reach.

1. Which of the following best describes the main idea of the passage?
 - A. By presenting a list of specific rights, framers of the Fourteenth Amendment were attempting to provide a constitutional basis for broad judicial protection of the principle of equal citizenship.
 - B. Only after the Supreme Court adopted the suspect classification approach to reviewing potentially discriminatory legislation was the applicability of the Fourteenth Amendment extended to include sexual discrimination.
 - C. Not until after the Second World War did the Supreme Court begin to interpret the Fourteenth Amendment in a manner consistent with the principle of equal citizenship that it expresses.
 - D. Interpreters of the Fourteenth Amendment have yet to reach consensus with regard to what its framers meant by the equal protection clause.
 - E. Although the reluctance of judges to extend the reach of the Fourteenth Amendment to nonracial discrimination has betrayed the principle of equal citizenship, the Supreme Court’s use of the state action limitation to insulate private activity from the amendment’s reach has been more harmful.
2. The passage suggests that the principal effect of the state action limitation was to

- A. allow some discriminatory practices to continue unimpeded by the Fourteenth Amendment
 - B. influence the Supreme Court's ruling in *Brown v. Board of Education*
 - C. provide expanded guidelines describing prohibited actions
 - D. prohibit states from enacting laws that violated the intent of the Civil Rights Act of 1866
 - E. shift to state governments the responsibility for enforcement of laws prohibiting discriminatory practices
3. The author's position regarding the intent of the framers of the Fourteenth Amendment would be most seriously undermined if which of the following were true?
- A. The framers had anticipated state action limitations as they are described in the passage.
 - B. The framers had merely sought to prevent discriminatory acts by federal officials.
 - C. The framers were concerned that the Civil Rights Act of 1866 would be overturned by the Supreme Court.
 - D. The framers were aware that the phrase "equal protection of the laws" had broad implications.
 - E. The framers believed that racial as well as non-racial forms of discrimination were unacceptable.
4. According to the passage, the original proponents of the Fourteenth Amendment were primarily concerned with
- A. detailing the rights afforded by the principle of equal citizenship
 - B. providing support in the Constitution for equal protection for all citizens of the United States
 - C. closing a loophole that could be used to deny individuals the right to sue for enforcement of their civil rights
 - D. asserting that the civil rights protected by the Constitution included nonracial discrimination as well as racial discrimination
 - E. granting state governments broader discretion in interpreting the Civil Rights Act of 1866
5. The author implies that the Fourteenth Amendment might not have been enacted if
- A. Congress' authority with regard to legislating civil rights had not been challenged
 - B. the framers had anticipated the Supreme Court's ruling in *Brown v. Board of Education*
 - C. the framers had believed that it would be used in deciding cases of discrimination involving non-racial groups
 - D. most state governments had been willing to protect citizens' civil rights
 - E. its essential elements had not been implicit in the Thirteenth Amendment
6. According to the passage, which of the following most accurately indicates the sequence of the events listed below?
- I. Civil Rights Act of 1866
 - II. *Dred Scott v. Sandford*
 - III. Fourteenth Amendment
 - IV. Veto by President Johnson
- A. I, II, III, IV
 - B. I, IV, II, III
 - C. I, IV, III, II
 - D. II, I, IV, III
 - E. III, II, I, IV

7. Which of the following can be inferred about the second of the two doctrines referred to in lines 20 of the passage?
- A. It caused some justices to rule that all types of discrimination are prohibited by the Constitution.
 - B. It shifted the focus of the Supreme Court from racial to nonracial discrimination.
 - C. It narrowed the concern of the Supreme Court to legislation that employed a suspect classification.
 - D. It caused legislators who were writing new legislation to reject language that could be construed as permitting racial discrimination.
 - E. It made it more difficult for commercial businesses to practice racial discrimination.

All of Françoise Duparc's surviving paintings blend portraiture and genre. Her subjects appear to be acquaintances whom she has asked to pose; she has captured both their self-consciousness and the spontaneity of their everyday activities, the depiction of which characterizes genre painting. But genre painting, especially when it portrayed members of the humblest classes, was never popular in eighteenth-century France. The Le Nain brothers and Georges de La Tour, who also chose such themes, were largely ignored. Their present high standing is due to a different, more democratic political climate and to different aesthetic values: we no longer require artists to provide ideal images of humanity for our moral edification but rather regard such idealization as a falsification of the truth. Duparc gives no improving message and discreetly refrains from judging her subjects. In brief, her works neither elevate nor instruct. This restraint largely explains her lack of popular success during her lifetime, even if her talent did not go completely unrecognized by her eighteenth-century French contemporaries.

8. According to the passage, modern viewers are not likely to value which of the following qualities in a painting?
- A. The technical elements of the painting
 - B. The spontaneity of the painting
 - C. The moral lesson imparted by the painting
 - D. The degree to which the painting realistically depicts its subject
 - E. The degree to which the artist's personality is revealed in the painting
9. If the history of Duparc's artistic reputation were to follow that of the Le Nain brothers and Georges de La Tour, present-day assessments of her work would be likely to contain which of the following?
- A. An evaluation that accords high status to her work
 - B. Acknowledgement of her technical expertise but dismissal of her subject matter as trivial
 - C. Agreement with assessments made in her own time but acknowledgements of the exceptional quality of a few of her paintings
 - D. Placement of her among the foremost artists of her century
 - E. A reclassification of her work as portraiture rather than genre painting
10. It can be inferred from the passage that the term "genre painting" would most likely apply to which of the following?
- A. A painting depicting a glorious moment of victory following a battle
 - B. A painting illustrating a narrative from the Bible
 - C. A portrayal of a mythological Greek goddess
 - D. A portrayal of a servant engaged in his work
 - E. A formal portrait of an eighteenth-century king

11. The argument of the passage best supports which of the following contentions concerning judgments of artistic work?
- A. Aesthetic judgments can be influenced by the political beliefs of those making the judgment.
 - B. Judgments of the value of an artist's work made by his or her contemporaries must be discounted before a true judgment can be made.
 - C. Modern aesthetic taste is once again moving in the direction of regarding idealistic painting as the most desirable form of painting.
 - D. In order to be highly regarded, an artist cannot be solely identified with one particular kind of painting.
 - E. Spontaneity is the most valuable quality a portrait painter can have.

Saturn's giant moon Titan is the only planetary satellite with a significant atmosphere and the only body in the solar system other than Earth that has a thick atmosphere dominated by molecular nitrogen. For a long time, the big question about Titan's atmosphere was how it could be so thick, given that Jupiter's moons Ganymede and Callisto, which are the same size as Titan, have none. The conditions for acquiring and retaining a thick nitrogen atmosphere are now readily understood. The low temperature of the protosaturnian nebula enabled Titan to acquire the moderately volatile compounds methane and ammonia (later converted to nitrogen) in addition to water. The higher temperatures of Jupiter's moons, which were closer to the Sun, prevented them from acquiring such an atmosphere.

12. According to the passage, Titan differs atmospherically from Ganymede and Callisto because of a difference in
- A. rate of heat loss
 - B. proximity to the Sun
 - C. availability of methane and ammonia
 - D. distance from its planet
 - E. size

Observations of the Arctic reveal that the Arctic Ocean is covered by less ice each summer than the previous summer. If this warming trend continues, within 50 years the Arctic Ocean will be ice free during the summer months. This occurrence would in itself have little or no effect on global sea levels, since the melting of ice floating in water does not affect the water level. However, serious consequences to sea levels would eventually result, because _____.

13. Which of the following most logically completes the passage?
- A. large masses of floating sea ice would continue to form in the wintertime
 - B. significant changes in Arctic sea temperatures would be accompanied by changes in sea temperatures in more temperate parts of the world
 - C. such a warm Arctic Ocean would trigger the melting of massive landbased glaciers in the Arctic
 - D. an ice-free Arctic Ocean would support a very different ecosystem than it does presently
 - E. in the spring, melting sea ice would cause more icebergs to be created and to drift south into shipping routes

Exercise 19. 20min

The deep sea typically has a sparse fauna dominated by tiny worms and crustaceans, with an even sparser distribution of larger animals. However, near hydrothermal vents, areas of the ocean where warm water emerges from subterranean sources, live remarkable densities of huge clams, blind crabs, and fish.

Most deep-sea faunas rely for food on particulate matter, ultimately derived from photosynthesis, falling from above. The food supplies necessary to sustain the large vent communities, however, must be many times the ordinary fallout. The first reports describing vent faunas proposed two possible sources of nutrition: bacterial chemosynthesis, production of food by bacteria using energy derived from chemical changes, and advection, the drifting of food materials from surrounding regions. Later, evidence in support of the idea of intense local chemosynthesis was accumulated: hydrogen sulfide was found in vent water; many vent-site bacteria were found to be capable of chemosynthesis; and extremely large concentrations of bacteria were found in samples of vent water thought to be pure. This final observation seemed decisive. If such astonishing concentrations of bacteria were typical of vent outflow, then food within the vent would dwarf any contribution from advection. Hence, the widely quoted conclusion was reached that bacterial chemosynthesis provides the foundation for hydrothermal-vent food chains—an exciting prospect because no other communities on Earth are independent of photosynthesis.

There are, however, certain difficulties with this interpretation. For example, some of the large sedentary organisms associated with vents are also found at ordinary deep-sea temperatures many meters from the nearest hydrothermal sources. This suggests that bacterial chemosynthesis is not a sufficient source of nutrition for these creatures. Another difficulty is that similarly dense populations of large deep-sea animals have been found in the proximity of “smokers”—vents where water emerges at temperatures up to 350°C. No bacteria can survive such heat, and no bacteria were found there. Unless smokers are consistently located near more hospitable warm-water vents, chemosynthesis can account for only a fraction of the vent faunas. It is conceivable, however, that these large, sedentary organisms do in fact feed on bacteria that grow in warm-water vents, rise in the vent water, and then rain in peripheral areas to nourish animals living some distance from the warm-water vents.

Nonetheless advection is a more likely alternative food source. Research has demonstrated that advective flow, which originates near the surface of the ocean where suspended particulate matter accumulates, transports some of that matter and water to the vents. Estimates suggest that for every cubic meter of vent discharge, 350 milligrams of particulate organic material would be advected into the vent area. Thus, for an average-sized vent, advection could provide more than 30 kilograms of potential food per day. In addition, it is likely that small live animals in the advected water might be killed or stunned by thermal and/or chemical shock, thereby contributing to the food supply of vents.

1. The passage provides information for answering which of the following questions?
 - A. What causes warm-water vents to form?
 - B. Do vent faunas consume more than do deep-sea faunas of similar size?
 - C. Do bacteria live in the vent water of smokers?
 - D. What role does hydrogen sulfide play in chemosynthesis?
 - E. What accounts for the locations of deep-sea smokers?
2. The information in the passage suggests that the majority of deep-sea faunas that live in nonvent habitats have which of the following characteristics?
 - A. They do not normally feed on particles of food in the water.
 - B. They are smaller than many vent faunas.
 - C. They are predators.

- D. They derive nutrition from a chemosynthetic food source.
- E. They congregate around a single main food source.
3. The primary purpose of the passage is to
- A. describe a previously unknown natural phenomenon
 - B. reconstruct the evolution of a natural phenomenon
 - C. establish unequivocally the accuracy of a hypothesis
 - D. survey explanations for a natural phenomenon and determine which is best supported by evidence
 - E. entertain (to receive and take into consideration “refused to entertain our plea”) criticism of the author’s research and provide an effective response
4. Which of the following does the author cite as a weakness in the argument that bacterial chemosynthesis provides the foundation for the food chains at deep-sea vents?
- A. Vents are colonized by some of the same animals found in other areas of the ocean floor.
 - B. Vent water does not contain sufficient quantities of hydrogen sulfide.
 - C. Bacteria cannot produce large quantities of food quickly enough.
 - D. Large concentrations of minerals are found in vent water.
 - E. Some bacteria found in the vents are incapable of chemosynthesis.
5. Which of the following is information supplied in the passage that would support the statement that the food supplies necessary to sustain vent communities must be many times that of ordinary fallout?
- I. Large vent faunas move from vent to vent in search of food.
 - II. Vent faunas are not able to consume food produced by photosynthesis.
 - III. Vents are more densely populated than are other deep-sea areas.
- A. I only
 - B. III only
 - C. I and II only
 - D. II and III only
 - E. I, II, and III
6. The author refers to “smokers” (paragraph 3) most probably in order to
- A. show how thermal shock can provide food for some vent faunas by stunning small animals
 - B. prove that the habitat of most deep-sea animals is limited to warm-water vents
 - C. explain how bacteria carry out chemosynthesis
 - D. demonstrate how advection compensates for the lack of food sources on the seafloor
 - E. present evidence that bacterial chemosynthesis may be an inadequate source of food for some vent faunas
7. Which of the following can be inferred from the passage about the particulate matter that is carried down from the surface of the ocean?
- A. It is the basis of bacterial chemosynthesis in the vents.
 - B. It may provide an important source of nutrition for vent faunas.
 - C. It may cause the internal temperature of the vents to change significantly.
 - D. It is transported as large aggregates of particles.
 - E. It contains hydrogen sulfide.

Paule Marshall’s *Brown Girl, Brownstones* (1959) was a landmark in the depiction of female characters in Black

American literature. Marshall avoided the oppressed and tragic heroine in conflict with White society that had been typical of the protest novels of the early twentieth century. Like her immediate predecessors, Zora Neale Hurston and Gwendolyn Brooks, she focused her novel on an ordinary Black woman's search for identity within the context of a Black community. But Marshall extended the analysis of Black female characters begun by Hurston and Brooks by depicting her heroine's development in terms of the relationship between her Barbadian American parents, and by exploring how male and female roles were defined by their immigrant culture, which in turn was influenced by the materialism of White America. By placing characters within a wider cultural context, Marshall attacked racial and sexual stereotypes and paved the way for explorations of race, class, and gender in the novels of the 1970's.

8. The passage is primarily concerned with
- A. comparing the works of three Black American authors
 - B. describing common themes in Black American literature
 - C. discussing an important work in Black American literature
 - D. providing insights about Black American literature in the early twentieth century
 - E. providing historical information about the writing of Black American novels in the second half the twentieth century
9. According to the passage, Hurston, Brooks, and Marshall are alike in that they
- A. did not examine the effects of White culture on their characters' lives
 - B. were heavily influenced by the protest novels of the early twentieth century
 - C. used Black communities as the settings for their novels
 - D. wrote primarily about the difficulties their characters encountered in White culture
 - E. wrote exclusively about female characters and the experiences of women
10. The author's description of the way in which Marshall depicts her heroine's development is most probably intended to
- A. continue the discussion of similarities in the works of Brooks, Hurston, and Marshall
 - B. describe the specific racial and sexual stereotypes that Marshall attacked
 - C. contrast the characters in Marshall's novels with those in later works
 - D. show how Marshall extends the portrayal of character initiated by her predecessors
 - E. compare themes in Marshall's early work with themes in her later novels
11. It can be inferred that the author of the passage would describe *Brown Girl, Brownstones* as being
- A. completely different from novels written before 1959
 - B. highly influenced by novels written in the early twentieth century
 - C. similar to the protest novels that preceded it
 - D. important in the late 1950's but dated today
 - E. an important influence on novels written in the 1970's

Extensive housing construction is underway in Pataska Forest, the habitat of a large population of deer. Because deer feed at the edges of forests, these deer will be attracted to the spaces alongside the new roads being cut through Pataska Forest to serve the new residential areas. Consequently, once the housing is occupied, the annual number of the forest's deer hit by cars will be much higher than before construction started.

12. Which of the following is an assumption on which the argument depends?
- A. The number of deer hit by commercial vehicles will not increase significantly when the housing is occupied.

- B. Deer will be as attracted to the forest edge around new houses as to the forest edge alongside roads.
- C. In years past, the annual number of deer that have been hit by cars on existing roads through Pataska Forest has been very low.
- D. The development will leave sufficient forest to sustain a significant population of deer.
- E. No deer hunting will be allowed in Pataska Forest when the housing is occupied.

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.

13. 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.

Exercise 20. 18min

The social sciences are less likely than other intellectual enterprises to get credit for their accomplishments. Arguably, this is so because the theories and conceptual constructs of the social sciences are especially accessible: human intelligence apprehends truths about human affairs with particular facility. And the discoveries of the social sciences, once isolated and labeled, are quickly absorbed into conventional wisdom, whereupon they lose their distinctiveness as scientific advances.

This underappreciation of the social sciences contrasts oddly with what many see as their overutilization. Game theory is pressed into service in studies of shifting international alliances. Evaluation research is called upon to demonstrate successes or failures of social programs. Models from economics and demography become the definitive tools for examining the financial base of social security. Yet this rush into practical applications is itself quite understandable: public policy must continually be made, and policymakers rightly feel that even tentative findings and untested theories are better guides to decision-making than no findings and no theories at all.

1. The author is primarily concerned with
 - A. advocating a more modest view, and less widespread utilization, of the social sciences
 - B. analyzing the mechanisms for translating discoveries into applications in the social sciences
 - C. dissolving the air of paradox inherent in human beings studying themselves
 - D. explaining a peculiar dilemma that the social sciences are in
 - E. maintaining a strict separation between pure and applied social science
2. Which of the following is a social science discipline that the author mentions as being possibly overutilized?
 - A. Conventional theories of social change
 - B. Game theory
 - C. Decision-making theory
 - D. Economic theories of international alliances
 - E. Systems analysis
3. It can be inferred from the passage that, when speaking of the “overutilization” of the social sciences, the author is referring to the
 - A. premature practical application of social science advances
 - B. habitual reliance on the social sciences even where common sense would serve equally well
 - C. practice of bringing a greater variety of social science disciplines to bear on a problem than the nature of the problem warrants
 - D. use of social science constructs by people who do not fully understand them
 - E. tendency on the part of social scientists to recast everyday truths in social science jargon
4. The author confronts the claim that the social sciences are being overutilized with
 - A. proof that overextensions of social science results are self-correcting
 - B. evidence that some public policy is made without any recourse to social science findings or theories
 - C. a long list of social science applications that are perfectly appropriate and extremely fruitful
 - D. the argument that overutilization is by and large the exception rather than the rule
 - E. the observation that this practice represents the lesser of two evils under existing circumstances

Astronomers found a large body orbiting close to the star Upsilon Andromedae. The standard theory of planet formation holds that no planet that large could be formed so close to a star, leading to the suggestion that the body is

a companion star. A subsequent discovery puts that suggestion in doubt: two other large bodies were found orbiting close to Upsilon Andromedae, and the standard theory of companion stars allows for at most one companion star.

5. Which of the following, if true, most helps to resolve the status of the orbiting body without casting doubt on the two standard theories mentioned?
- A. The smaller a planet orbiting a star is, and the farther away it is from the star, the less likely it is to be discovered.
 - B. If a planet's orbit is disturbed, the planet can be drawn by gravity toward the star it is orbiting.
 - C. The largest of the bodies orbiting Upsilon Andromedae is the farthest away from the star, and the smallest is the nearest.
 - D. It is likely that there are many stars, in addition to Upsilon Andromedae and the Sun, that are orbited by more than one smaller body.
 - E. In most cases of companion stars, the smaller companion is much fainter than the larger star.

Proponents of different jazz styles have always argued that their predecessors' musical style did not include essential characteristics that define jazz as jazz. Thus, 1940's swing was belittled by beboppers of the 1950's, who were themselves attacked by free jazzers of the 1960's. The neoboppers of the 1980's and 1990's attacked almost everybody else. The titanic figure of Black saxophonist John Coltrane has complicated the arguments made by proponents of styles from bebop through neobop because in his own musical journey he drew from all those styles. His influence on all types of jazz was immeasurable. At the height of his popularity, Coltrane largely abandoned playing bebop, the style that had brought him fame, to explore the outer reaches of jazz. Coltrane himself probably believed that the only essential characteristic of jazz was improvisation, the one constant in his journey from bebop to open-ended improvisations on modal, Indian, and African melodies. On the other hand, this dogged student and prodigious technician—who insisted on spending hours each day practicing scales from theory books—was never able to jettison completely the influence of bebop, with its fast and elaborate chains of notes and ornaments on melody.

Two stylistic characteristics shaped the way Coltrane played the tenor saxophone, he favored playing fast runs of notes built on a melody and depended on heavy, regularly accented beats. The first led Coltrane to “sheets of sound,” where he raced faster and faster, pile-driving notes into each other to suggest stacked harmonies. The second meant that his sense of rhythm was almost as close to rock as to bebop.

Three recordings illustrate Coltrane's energizing explorations. Recording *Kind of Blue* with Miles Davis, Coltrane found himself outside bop, exploring modal melodies. Here he played surging, lengthy solos built largely around repeated motifs—an organizing principle unlike that of free jazz saxophone player Ornette Coleman, who modulated or altered melodies in his solos. On *Giant Steps*, Coltrane debuted as leader, introducing his own compositions. Here the sheets of sound, downbeat accents, repetitions, and great speed are part of each solo, and the variety of the shapes of his phrases is unique. Coltrane's searching explorations produced solid achievement. *My Favorite Things* was another kind of watershed. Here Coltrane played the soprano saxophone, an instrument seldom used by jazz musicians. Musically, the results were astounding. With the soprano's piping sound, ideas that had sounded dark and brooding acquired a feeling of giddy fantasy.

When Coltrane began recording for the Impulse! label, he was still searching. His music became raucous, physical. His influence on rockers was enormous, including Jimi Hendrix, the rock guitarist, who, following Coltrane, raised the extended guitar solo using repeated motifs to a kind of rock art form.

6. The primary purpose of the passage is to
- discuss the place of Coltrane in the world of jazz and describe his musical explorations
 - examine the nature of bebop and contrast it with improvisational jazz
 - analyze the musical sources of Coltrane's style and their influence on his work
 - acknowledge the influence of Coltrane's music on rock music and rock musicians
 - discuss the arguments that divide the proponents of different jazz styles
7. The author implies that which of the following would have been an effect of Coltrane's having chosen to play the tenor rather than the soprano saxophone on *My Favorite Things*?
- The tone of the recording would have been more somber.
 - The influence of bebop on the recording would have been more obvious.
 - The music on the recording would have sounded less raucous and physical.
 - His influence on rock music might have been less pervasive.
 - The style of the recording would have been indistinguishable from that on *Kind of Blue*.
8. Which of the following best describes the organization of the fourth paragraph?
- A thesis referred to earlier in the passage is mentioned and illustrated with three specific examples.
 - A thesis is stated and three examples are given each suggesting that a correction needs to be made to a thesis referred to earlier in the passage.
 - A thesis referred to earlier in the passage is mentioned, and three examples are presented and ranked in order of their support of the thesis.
 - A thesis is stated, three seemingly opposing examples are presented, and their underlying correspondence is explained.
 - A thesis is stated, three dissimilar examples are considered, and the thesis is restated.
9. According to the passage, John Coltrane did all of the following during his career EXCEPT:
- improvise on melodies from a number of different cultures
 - perform as leader as well as soloist
 - spend time improving his technical skills
 - experiment with the sounds of various instruments
 - eliminate the influence of bebop on his own music
10. The author mentions the work of Ornette Coleman in the fourth paragraph in order to do which of the following?
- B**
- Expand the discussion by mentioning the work of a saxophone player who played in Coltrane's style.
 - Compare Coltrane's solos with the work of another jazz artist.
 - Support the idea that rational organizing principles need to be applied to artistic work.
 - Show the increasing intricacy of Coltrane's work after he abandoned bebop.
 - Indicate disagreement with the way Coltrane modulated the motifs in his lengthy solos.
11. According to the passage, a major difference between Coltrane and other jazz musicians was the
- degree to which Coltrane's music encompassed all of jazz
 - repetition of motifs that Coltrane used in his solos
 - number of his own compositions that Coltrane recorded
 - indifference Coltrane maintained to musical technique
 - importance Coltrane placed on rhythm in jazz

12. In terms of its tone and form, the passage can best be characterized as
- A. dogmatic explanation
 - B. indignant denial
 - C. enthusiastic praise
 - D. speculative study
 - E. lukewarm review

Exercise 21. 19min

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 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 sound-proof 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 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.

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 the first paragraph 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 the first paragraph?
 - 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 the third paragraph 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

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.

8. 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
9. 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.
10. It can be inferred from the passage that the social scientists mentioned in lines 1-3 would agree with which of the following statements?
- I. It is extremely difficult to create models that account for both economic and social development.
 - II. Models of economic and social development would be improved by the inclusion of adequate descriptions of national character.
 - III. It is important to supplement formal models of economic and social development with qualitative impressions of national character.
- A. I only
 - B. II only
 - C. III only
 - D. I and III only
 - E. II and III only
11. 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.

In Gilavia, the number of reported workplace injuries has declined 16 percent in the last five years. However, perhaps part of the decline results from injuries going unreported: many employers have introduced safety-incentive programs, such as prize drawings for which only employees who have a perfect work-safety record are eligible. Since a workplace injury would disqualify an employee from such programs, some employees might be concealing injury, when it is feasible to do so.

12. Which of the following, if true in Gilavia, most strongly supports the proposed explanation?
- A. In the last five years, there has been no decline in the number of workplace injuries leading to immediate admission to a hospital emergency room.
 - B. Employers generally have to pay financial compensation to employees who suffer work-related injuries.
 - C. Many injuries that happen on the job are injuries that would be impossible to conceal and yet would not be severe enough to require any change to either the employee's work schedule or the employee's job

responsibilities.

- D. A continuing shift in employment patterns has led to a decline in the percentage of the workforce that is employed in the dangerous occupations in which workplace injuries are likely.
- E. Employers who have instituted safety-incentive programs do not in general have a lower proportion of reported workplace injuries among their employees than do employers without such programs.

Exercise 22. 20min

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" in the first paragraph exists for which of the following insurrections of nineteenth-century France?
 - I. The July Insurrection of 1830
 - II. The February Revolution of 1848
 - III. The June insurrection of 1848
 - IV. The May insurrection of 1871
 - A. I and III only
 - B. II and IV only
 - C. I, II, and III only
 - D. I, III, and IV only
 - E. II, III, and IV only
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. 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
5. Which of the following can be inferred about the "detailed judicial dossiers" referred to in the last paragraph?
- A. Information contained in the dossiers sheds light on the social origins of a revolution's participants.
B. The dossiers closely resemble the narratives written by the revolution's leaders in their personal memoirs.
C. The information that such dossiers contain is untrustworthy and unrepresentative of a revolution's participants.
D. Social historians prefer to avoid such dossiers whenever possible because they are excessively detailed.
E. The February Revolution of 1848 produced more of these dossiers than did the June insurrection.
6. Which of the following is the most logical objection to the claim made in the first sentence of 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.
7. 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.

Although scientists observe that an organism's behavior falls into rhythmic patterns, they disagree about how these patterns are affected when the organism is transported to a new environment. One experimenter, Brown, brought oysters from Connecticut waters to Illinois waters. She noted that the oysters initially opened their shells widest when it was high tide in Connecticut, but that after fourteen days their rhythms had adapted to the tide schedule in Illinois. Although she could not posit an unequivocal causal relationship between behavior and environmental change, Brown concluded that a change in tide schedule is one of several possible exogenous influences (those outside the organism) on the oysters' rhythms. Another experimenter, Hamner, however, discovered that hamsters from California maintain their original rhythms even at the South Pole. He concluded that endogenous influences (those inside the organism) seem to affect an organism's rhythmic behavior.

8. All of the following could be considered examples of exogenous influences on an organism EXCEPT the influence of the
- A. level of a hormone on a field mouse's readiness for mating
 - B. temperature of a region on a bear's hibernation
 - C. salt level of a river on a fish's migration
 - D. humidity of an area on a cat's shedding of its fur
 - E. proximity of an owl on a lizard's searching for food
9. Which of the following statements best describes the conclusion drawn by Brown
- A. A change in tide schedule is the primary influence on an oyster's rhythms.
 - B. A change in tide schedule may be an important exogenous influence on an oyster's rhythms.
 - C. Exogenous influences, such as a change in tide schedule, seldom affect an oyster's rhythms.
 - D. Endogenous influences have no effect on an oyster's rhythms.
 - E. Endogenous influences are the only influences on an oyster's rhythms.
10. The passage suggests that Brown's study was similar to Hamner's in which of the following ways?
- I. Both experimenters discovered that a new environment had a significant effect on an organism's behavior rhythms.
 - II. Both experimenters observed an organism's behavioral rhythms after the organism had been transported to a new environment.
 - III. Both experimenters knew an organism's rhythmic patterns in its original environment.
- A. I only
 - B. II only
 - C. I and II only
 - D. II and III only
 - E. I, II, and III
11. Which of the following, if true, would most weaken Brown's conclusion?
- A. The oyster gradually closed their shells after high tide in Illinois had passed.
 - B. The oysters' behavioral rhythms maintained their adaptation to the tide schedule in Illinois throughout thirty days of observation.
 - C. Sixteen days after they were moved to Illinois, the oysters opened their shells widest when it was high tide in Connecticut.
 - D. A scientist who brought Maryland oysters to Maine found that the oysters opened their shells widest when it was high tide in Maine.

- E. In an experiment similar to Brown's, a scientist was able to establish a clear causal relationship between environmental change and behavioral rhythms.

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.

12. 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.

The economy of Colonia has been in recession for the past eight years. Most companies that have not been forced into bankruptcy have survived thanks to the high efficiency of the employees they retained, which helped the companies control costs. In recent months, however, the Colonian economy has begun to recover, and companies are beginning to expand their workforces. Colonia, therefore, will soon experience a drop in average worker efficiency, since _____.

13. 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.

Exercise 23. 20min

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.

- Which of the following best describes the author's attitude toward Gaskell's use of the method of documentary record in *Mary Barton*?
 - Uncritical enthusiasm
 - Unresolved ambivalence
 - Qualified approval
 - Resigned acceptance
 - Mild irritation
- According to the passage, *Mary Barton* and the early novels of D. H. Lawrence share which of the following?
 - Depiction of the feelings of working-class families
 - Documentary objectivity about working-class circumstances
 - Richly detailed description of working-class adjustment to urban life
 - Imaginatively structured plots about working-class characters
 - Experimental prose style based on working-class dialect
- Which of the following is most closely analogous to Job Legh in *Mary Barton*, as that character is described in the passage?
 - 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" 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 the second paragraph 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

Visual recognition involves storing and retrieving memories. Neural activity, triggered by the eye, forms an image in the brain's memory system that constitutes an internal representation of the viewed object. When an object is encountered again, it is matched with its internal representation and thereby recognized. Controversy surrounds the question of whether recognition is a parallel, one-step process or a serial, step-by-step one. Psychologists of the Gestalt school maintain that objects are recognized as wholes in a parallel procedure: the internal representation is matched with the retinal image in a single operation. Other psychologists have proposed that internal representation features are matched serially with an object's features. Although some experiments show that, as an object becomes familiar, its internal representation becomes more holistic and the recognition process correspondingly more parallel, the weight of evidence seems to support the serial hypothesis, at least for objects that are not notably simple and

familiar.

8. The author is primarily concerned with
- A. explaining how the brain receives images
 - B. synthesizing hypotheses of visual recognition
 - C. examining the evidence supporting the serial recognition hypothesis
 - D. discussing visual recognition and some hypotheses proposed to explain it
 - E. reporting on recent experiments dealing with memory systems and their relationship to neural activity
9. According to the passage, Gestalt psychologists make which of the following suppositions about visual recognition?
- I. A retinal image is in exactly the same forms as its internal representation.
 - II. An object is recognized as a whole without any need for analysis into component parts.
 - III. The matching of an object with its internal representation occurs in only one step.
- A. II only
 - B. III only
 - C. I and III only
 - D. II and III only
 - E. I, II, and III
10. It can be inferred from the passage that the matching process in visual recognition is
- A. not a neural activity
 - B. not possible when an object is viewed for the very first time
 - C. not possible if a feature of a familiar object is changed in some way
 - D. only possible when a retinal image is received in the brain as a unitary whole
 - E. now fully understood as a combination of the serial and parallel processes
11. In terms of its tone and form, the passage can best be characterized as
- A. a biased exposition
 - B. a speculative study
 - C. a dispassionate presentation
 - D. an indignant denial
 - E. a dogmatic explanation

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 _____.

12. Which of following most logically completes the argument?
- 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

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.

13. 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.

Exercise 24. 18min

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 constitute its links to modes of writing other than Anglo-European nineteenth-century realism. For example, Henry Louis Gates, Jr., has recently located the letters to God within an African American tradition deriving from slave narrative, a tradition in which the act of writing is linked to a powerful deity who "speaks" through scripture and bestows literacy as an act of grace. For Gates, the concern with finding a voice, which he sees as the defining feature of African American literature, links Celie's letters with certain narrative aspects of Zora Neale Hurston's 1937 novel *Their Eyes Were Watching God*, the acknowledged predecessor of *The Color Purple*.

Gates's paradigm suggests how misleading it may be to assume that mainstream realist criteria are appropriate for evaluating *The Color Purple*. But in his preoccupation with voice as a primary element unifying both the speaking subject and the text as a whole Gates does not elucidate many of the more conventional structural features of Walker's novel. For instance, while the letters from Nettie clearly illustrate Nettie's acquisition of her own voice, Gates's focus on "voice" sheds little light on the *place* that these letters occupy in the narrative or on why the plot takes this sudden jump into geographically and culturally removed surroundings. What is needed is an evaluative paradigm that, rather than obscuring such startling structural features (which may actually be explicitly intended to undermine traditional Anglo-European novelistic conventions), confronts them, thus illuminating the deliberately provocative ways in which *The Color Purple* departs from the traditional models to which it has been compared.

1. The author of the passage would be most likely to agree with which of the following statements about the letters from Nettie to Celie?
 - A. They mark an unintended shift to geographically and culturally removed surroundings
 - B. They may represent a conscious attempt to undermine certain novelistic conventions
 - C. They are more closely connected to the main action of the novel than is at first apparent
 - D. They owe more to the tradition of the slave narrative than do Celie's letters to God
 - E. They illustrate the traditional concretizing details of the epistolary novel form
2. In the second paragraph, the author of the passage is primarily concerned with
 - A. examining the ways in which *The Color Purple* echoes its acknowledged predecessor, *Their Eyes Were Watching God*
 - B. providing an example of a critic who has adequately addressed the structural features of *The Color Purple*
 - C. suggesting that literary models other than the nineteenth-century realistic novel may inform our understanding of *The Color Purple*
 - D. demonstrating the ineffectiveness of a particularly scholarly attempt to suggest an alternative way of evaluating *The Color Purple*

- E. disputing the perceived notion that *The Color Purple* departs from conventions of the realistic novel form
3. According to the passage, an evaluative paradigm that confronts the startling structural features of *The Color Purple* would accomplish which of the following?
- A. It would adequately explain why many reviewers of this novel have discerned its connections to the realistic novel tradition
 - B. It would show the ways in which this novel differs from its reputed Anglo-European nineteenth-century models
 - C. It would explicate the overarching role of voice in this novel
 - D. It would address the ways in which this novel echoes the central themes of Hurston's *Their Eyes Are Watching God*
 - E. It would reveal ways in which these structural features serve to parody novelistic conventions
4. The author of the passage suggests that Gates is most like the reviewers mentioned in the first paragraph in which of the following ways?
- A. He points out discrepancies between *The Color Purple* and other traditional epistolary novels
 - B. He sees the concern with finding a voice as central to both *The Color Purple* and *Their Eyes Are Watching God*
 - C. He assumes that *The Color Purple* is intended to be a novel primarily in the tradition of Anglo-American nineteenth-century realism
 - D. He does not address many of the unsettling structural features of *The Color Purple*
 - E. He recognizes the departure of *The Color Purple* from traditional Anglo-European realistic novel conventions.

Isadora Duncan's masterly writings on the dance reveal the depth of her determination to create a lyric form of the art which was free of characterization, storytelling, and the theatrical exhibition of skills. She wished to discard the traditional methods and established vocabularies of such dance forms as ballet and to explore the internal sources of human expressiveness. She shunned bodily ornamentation and strove to use only the natural movements of her body, undistorted by acrobatic exaggeration and stimulated only by internal compulsion. In her recitals Duncan danced to the music of Beethoven, Wagner, and Gluck, among others, but, contrary to popular belief, she made no attempt to visualize or to interpret the music; rather, she simply relied on it to provide the inspiration for expressing inner feelings through movement. She did not regard this use of music as ideal, however, believing that she would someday dispense with music entirely. That day never came.

5. The author is primarily concerned with Duncan's
- A. masterful lyricism as expressed in her writings on the dance
 - B. concerted efforts to subdue the natural movements of the dance
 - C. belated recognition that she could not actually fulfill all of her ideals for the dance
 - D. basic standards for the dance form that she wished to create and perform
 - E. continuous responsiveness to a popular misconception about the nature of her new art form
6. The author implies that Duncan relied on music in her recitals in order to
- A. interpret musical works solely by means of natural body movements
 - B. foster the illusion that music serves as an inspiration for the dance
 - C. inspire the expression of inner feeling when she danced

- D. validate the public belief that music inspires the expression of feeling through movement
 - E. counter the public belief that she made no attempt to visualize music
7. According to the passage, Duncan intended to develop an art form that would do all of the following EXCEPT
- A. avoid the use of standard ballet techniques
 - B. revitalize an earlier established vocabulary
 - C. draw on internal sources of human expressiveness
 - D. create intended effects without the use of acrobatic exaggeration
 - E. derive inspiration solely from inner feelings
8. It can be inferred from the passage that which of the following endeavors is LEAST compatible with Duncan's ideals for the dance?
- A. Using music to stimulate the inspiration to dance
 - B. Attempting to free an art form of both characterization and storytelling
 - C. Minimizing the theatrical exhibition of skills
 - D. Being inspired to express inner feeling through movement
 - E. Creating a lyric art form by drawing on inner personal resources

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.

9. 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.

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 _____.

10. 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

	1	2	3	4	5	6	7	8	9	10	11	12	13
Exercise 1	B	D	C	A	A	E	B	E	AC	His music is not....			
Exercise 2	B	D	C	B	Thomas found that ...	B	B	From then...	C	E			
Exercise 3	AC	B	C	A	E	B	E	AB	of these forms	B			
Exercise 4	D	E	C	E	D	C	A	C	C	A			
Exercise 5	ABC	A	D	B	B	B	D	C	D	E			
Exercise 6	ABC	in the book's frontpiece	C	E	E	C	A	A	When he moves	A			
Exercise 7	B	A	E	B	B	D	C	E	A	C			
Exercise 8	BC	ABC	C	A	D	E	E	C	C	D			
Exercise 9	BC	AB	B	C	C	E	B	C	ABC	AB			
Exercise 10	AB	E	C	A	C	C	C	C	AC	A			
Exercise 11	AB	A	B	A	C	C	E	A	AB	A			
Exercise 12	E	AC	A	E	E	D	AC	D	B	D			
Exercise 13	A	C	B	D	B	C	A	C	D	BC			
Exercise 14	A	A	C	B	D	A	AB	ABC	A	D			
Exercise 15	AC	E	D	E	C	E	A	B	E	C			
Exercise 16	D	B	E	A	B	A	E	A	E	B	D	B	D
Exercise 17	D	B	A	C	E	E	A	A	C	E	D	D	
Exercise 18	C	A	B	B	A	D	E	C	A	D	A	B	C
Exercise 19	C	B	D	A	B	E	B	C	C	D	E	D	B
Exercise 20	D	B	A	E	B	A	A	A	E	B	A	C	
Exercise 21	C	D	B	D	A	D	C	C	D	B	A	A	
Exercise 22	D	E	D	E	A	B	D	A	B	D	C	E	C
Exercise 23	C	A	D	C	E	E	E	D	D	B	C	C	E
Exercise 24	B	C	B	E	D	C	B	A	A	E			