

Essay 1

First identified in 1969, komatiites are Earth's oldest known volcanic rocks and contain three times as much magnesium as do most volcanic rocks. This chemical composition suggests that komatiites formed from the hottest lava known ever to have erupted: a high concentration of magnesium changes the physical properties of lava so that unusually high temperatures would be required for the lava to exist as a liquid.

Komatiites' discovery was surprising in light of then-current geological theories about magmas, molten rock that forms in the Earth's mantle (the layer beneath the crust) and composes volcanic lava eruptions. Prior to 1960, geologists Bowen and Hess disagreed over whether or not the very high temperatures needed to produce magmas rich in magnesium could have existed on Earth. Hess suggested that the presence of water, probably released from minerals decomposing in the Earth's mantle, might have meant that a high-magnesium magma could have existed at a lower temperature. But Bowen showed experimentally that the high temperatures were indeed necessary. By 1960, it was generally accepted that volcanic rocks with such high levels of magnesium could not exist, and thus the discovery of komatiites changed geologists' assumptions about the characteristics of the Earth's mantle around the time of the formation of komatiites, between 2.5 and 4 billion years ago.

Q2

Information in the passage suggests which of the following concerning the Earth's mantle 2.5 to 4 billion years ago?

- ☐ It contained magmas that were more significantly affected by the decomposition of minerals than are current-day magmas.
- ☐ It contained a lower proportion of water than it contains today.
- ☐ Its characteristics were accurately described by both Bowen and Hess.
- ☐ Its temperature was sufficiently high to produce magmas with high magnesium content.
- ☐ Its total magnesium content then was roughly equivalent to its magnesium content today.

Essay 2

In the 1980's, astronomer Bohdan Paczynski proposed a way of determining whether the enormous dark halo constituting the outermost part of the Milky Way galaxy is composed of MACHO's (massive compact halo objects), which are astronomical objects too dim to be visible. Paczynski reasoned that if MACHO's make up this halo, a MACHO would occasionally drift in front of a star in the Large Magellanic Cloud, a bright galaxy near the Milky Way. The gravity of a MACHO that had so drifted, astronomers agree, would cause the star's light rays, which would otherwise diverge, to bend together so that, as observed from Earth, the star would temporarily appear to brighten, a process known as microlensing. Because many individual stars are of intrinsically variable brightness, some astronomers have contended that the brightening of intrinsically variable stars can be mistaken for microlensing. However, whereas the different colors of light emitted by an intrinsically variable star are affected differently when the star brightens, all of a star's colors are equally affected by microlensing. Thus, if a MACHO magnifies a star's red light tenfold, it will do the same to the star's blue light and yellow light. Moreover, it is highly unlikely that a star in the Large Magellanic Cloud will undergo microlensing more than once, because the chance that a second MACHO would pass in front of exactly the same star is minuscule.

Q5

The passage is primarily concerned with

- ☐ outlining reasons why a particular theory is no longer credited by some astronomers
- ☐ presenting data collected by a researcher in response to some astronomers' criticism of a particular line of reasoning
- ☐ explaining why a researcher proposed a particular theory and illustrating how influential that theory has been
- ☐ showing how a researcher's theory has been used to settle a dispute between the researcher and some astronomers
- ☐ describing a line of reasoning put forth by a researcher and addressing a contention concerning that line of reasoning

Q1

Which of the following most accurately states the main point of the passage?

- ☐ Komatiites provide information about rates of volcanic eruption between 2.5 and 4 billion years ago.
- ☐ Komatiites provide information about how the physical properties of lava in the Earth's past compare with those of current-day lava.
- ☐ Komatiites provide evidence that undermines Bowen's experimental conclusions regarding the temperatures at which lava exists as a liquid.
- ☐ Komatiites provide evidence that has changed geologists' ideas about the characteristics of the Earth's mantle between 2.5 and 4 billion years ago.
- ☐ Komatiites provide evidence that water in the Earth's mantle may have reduced the temperature required for lava to exist as a liquid.

Q3

According to the passage, Hess and Bowen differed concerning whether or not the

- ☐ methodology used by Bowen in conducting certain experiments was appropriate
- ☐ high temperatures thought necessary to produce high-magnesium magmas were in fact necessary
- ☐ Earth's mantle contained significant amounts of water when komatiites were formed
- ☐ presence of magnesium in lava changes the physical properties of lava
- ☐ komatiites identified in 1969 were actually Earth's oldest volcanic rocks

Q4

It can be inferred from the passage that which of the following would constitute the strongest evidence of the microlensing of a star in the Large Magellanic Cloud?

- ☐ The brightness of such a star is observed to vary at irregular intervals.
- ☐ The brightening of such a star is observed to be of shorter duration than the brightening of neighboring stars.
- ☐ The red light of such a star is observed to be brighter than its yellow light and its blue light.
- ☐ The red light, yellow light, and blue light of such a star are observed to be magnified temporarily by the same factor.
- ☐ The red light of such a star is observed to have increased tenfold.

Q6

According to the passage, Paczynski's theory presumes that if MACHO's constituted the Milky Way's dark halo, occasionally a MACHO would

- ☐ drift so as to lie in a direct line between two stars in the outer Milky Way
- ☐ affect the light rays of a star in the Large Magellanic Cloud with the result that the star would seem for a time to brighten
- ☐ become obscured as a result of the microlensing of a star in the Large Magellanic Cloud
- ☐ temporarily increase the apparent brightness of a star in the Large Magellanic Cloud by increasing the gravity of the star
- ☐ magnify each color in the spectrum of a star in the Large Magellanic Cloud by a different amount

Essay 3

In terrestrial environments, gravity places special demands on the cardiovascular systems of animals. Gravitational pressure can cause blood to pool in the lower regions of the body, making it difficult to circulate blood to critical organs such as the brain. Terrestrial snakes, in particular, exhibit adaptations that aid in circulating blood against the force of gravity.

The problem confronting terrestrial snakes is best illustrated by what happens to sea snakes when removed from their supportive medium. Because the vertical pressure gradients within the blood vessels are counteracted by similar pressure gradients in the surrounding water, the distribution of blood throughout the body of sea snakes remains about the same regardless of their orientation in space, provided they remain in the ocean. When removed from the water and tilted at various angles with the head up, however, blood pressure at their midpoint drops significantly, and at brain level falls to zero. That many terrestrial snakes in similar spatial orientations do not experience this kind of circulatory failure suggests that certain adaptations enable them to regulate blood pressure more effectively in those orientations.

One such adaptation is the closer proximity of the terrestrial snake's heart to its head, which helps to ensure circulation to the brain, regardless of the snake's orientation in space. The heart of sea snakes can be located near the middle of the body, a position that minimizes the work entailed in circulating blood to both extremities. In arboreal snakes, however, which dwell in trees and often assume a vertical posture, the average distance from the heart to the head can be as little as 15 percent of overall body length. Such a location requires that blood circulated to the tail of the snake travel a greater distance back to the heart, a problem solved by another adaptation. When climbing, arboreal snakes often pause momentarily to wiggle their bodies, causing waves of muscle contraction that advance from the lower torso to the head. By compressing the veins and forcing blood forward, these contractions apparently improve the flow of venous blood returning to the heart.

Q8

The author suggests that which of the following is a disadvantage that results from the location of a snake's heart in close proximity to its head?

- ☐ A decrease in the efficiency with which the snake regulates the flow of blood to the brain
- ☐ A decrease in the number of orientations in space that a snake can assume without loss of blood flow to the brain
- ☐ A decrease in blood pressure at the snake's midpoint when it is tilted at various angles with its head up
- ☐ An increase in the tendency of blood to pool at the snake's head when the snake is tilted at various angles with its head down
- ☐ An increase in the amount of effort required to distribute blood to and from the snake's tail

Q10

According to the passage, one reason that the distribution of blood in the sea snake changes little while the creature remains in the ocean is that

- ☐ the heart of the sea snake tends to be located near the center of its body
- ☐ pressure gradients in the water surrounding the sea snake counter the effects of vertical pressure gradients within its blood vessels
- ☐ the sea snake assumes a vertical posture less frequently than do the terrestrial and the arboreal snake
- ☐ the sea snake often relies on waves of muscle contractions to help move blood from the torso to the head
- ☐ the force of pressure gradients in the water surrounding the sea snake exceeds that of vertical pressure gradients within its circulatory system

Q7

The passage provides information in support of which of the following assertions?

- ☐ The disadvantages of an adaptation to a particular feature of an environment often outweigh the advantages of such an adaptation.
- ☐ An organism's reaction to being placed in an environment to which it is not well adapted can sometimes illustrate the problems that have been solved by the adaptations of organisms indigenous to that environment.
- ☐ The effectiveness of an organism's adaptation to a particular feature of its environment can only be evaluated by examining the effectiveness with which organisms of other species have adapted to a similar feature of a different environment.
- ☐ Organisms of the same species that inhabit strikingly different environments will often adapt in remarkably similar ways to the few features of those environments that are common.
- ☐ Different species of organisms living in the same environment will seldom adapt to features of that environment in the same way.

Q9

It can be inferred from the passage that which of the following is true of species of terrestrial snakes that often need to assume a vertical posture?

- ☐ They are more likely to be susceptible to circulatory failure in vertical postures than are sea snakes.
- ☐ Their hearts are less likely to be located at the midpoint of their bodies than is the case with sea snakes.
- ☐ They cannot counteract the pooling of blood in lower regions of their bodies as effectively as sea snakes can.
- ☐ The blood pressure at their midpoint decreases significantly when they are tilted with their heads up.
- ☐ They are unable to rely on muscle contractions to move venous blood from the lower torso to the head.

Essay 4

The United States hospital industry is an unusual market in that nonprofit and for-profit producers exist simultaneously. Theoretical literature offers conflicting views on whether nonprofit hospitals are less financially efficient. Theory suggests that nonprofit hospitals are so much more interested in offering high-quality service than in making money that they frequently input more resources to provide the same output of service as for-profit hospitals. This priority might also often lead them to be less vigilant in streamlining their services—eliminating duplication between departments, for instance. Conversely, while profit motive is thought to encourage for-profit hospitals to attain efficient production, most theorists admit that obstacles to that efficiency remain. **For-profit hospital managers**, for example, generally work independently of hospital owners and thus may not always make maximum financial efficiency their highest priority. The literature also suggests that widespread adoption of third-party payment systems may eventually eliminate any such potential differences between the two kinds of hospitals.

The same literature offers similarly conflicting views of the efficiency of nonprofit hospitals from a social welfare perspective. Newhouse (1970) contends that nonprofit hospital managers unnecessarily expand the quality and quantity of hospital care beyond the actual needs of the community, while Weisbrod (1975) argues that nonprofit firms—hospitals included—contribute efficiently to community welfare by providing public services that might be inadequately provided by government alone.

Q12

The author mentions duplication between departments primarily in order to

- ☐ illustrate an area in which nonprofit hospitals fail to provide adequate services
- ☐ describe the outcome of nonprofit hospitals' emphasis on maintaining managerial freedom
- ☐ recommend a particular change that would allow nonprofit hospitals to streamline their services
- ☐ suggest a way in which nonprofit hospitals may fail to achieve maximum financial efficiency
- ☐ explain why nonprofit hospitals may be able to provide more services than for-profit hospitals

Essay 5

Maps made by non-Native Americans to depict Native American land tenure, resources, and population distributions appeared almost as early as Europeans' first encounters with Native Americans and took many forms: missionaries' field sketches, explorers' drawings, and surveyors' maps, as well as maps rendered in connection with treaties involving land transfers. Most existing maps of Native American lands are reconstructions that are based largely on archaeology, oral reports, and evidence gathered from observers' accounts in letters, diaries, and official reports; accordingly, the accuracy of these maps is especially dependent on the mapmakers' own interpretive abilities.

Many existing maps also reflect the 150-year role of the Bureau of Indian Affairs (BIA) in administering tribal lands. Though these maps incorporate some information gleaned directly from Native Americans, rarely has Native American cartography contributed to this official record, which has been compiled, surveyed, and authenticated by non-Native Americans. Thus our current cartographic record relating to Native American tribes and their migrations and cultural features, as well as territoriality and contemporary trust lands, reflects the origins of the data, the mixed purposes for which the maps have been prepared, and changes both in United States government policy and in non-Native Americans' attitudes toward an understanding of Native Americans.

Q15

The passage mentions each of the following as a factor affecting current maps of Native American lands EXCEPT

- ☐ United States government policy
- ☐ non-Native Americans' perspectives on Native Americans
- ☐ origins of the information utilized to produce the maps
- ☐ changes in the ways that tribal lands are used
- ☐ the reasons for producing the maps

Q11

The passage suggests which of the following about the managers mentioned in the highlighted text?

- ☐ They have generally been motivated to streamline hospital services as a result of direct intervention by hospital owners.
- ☐ They are more likely than managers of nonprofit hospitals to use unnecessary amounts of resources to provide services.
- ☐ Their most important self-acknowledged goal is to achieve maximum financial efficiency so that hospitals show a profit.
- ☐ Their decisions regarding services provided by their hospitals may not reflect hospital owners' priorities.
- ☐ They do not place a high priority on maximizing profits, despite their desire to achieve efficiency.

Q13

The passage is primarily concerned with

- ☐ discussing the advantages of increased efficiency in a particular type of hospital
- ☐ assessing obstacles to efficiency in a particular type of hospital
- ☐ describing conflicting assessments in the theoretical literature concerning particular types of hospitals
- ☐ challenging evidence used to support an argument advanced in recent theoretical literature concerning a particular type of hospital
- ☐ emphasizing the advantages of one particular type of hospital over another type

Q14

Which of the following best describes the content of the passage?

- ☐ A chronology of the development of different methods for mapping Native American lands
- ☐ A discussion of how the mapmaking techniques of Native Americans differed from those of Europeans
- ☐ An argument concerning the present-day uses to which historical maps of Native American lands are put
- ☐ An argument concerning the nature of information contained in maps of Native American lands
- ☐ A proposal for improving the accuracy of maps of Native American lands

Q16

The passage suggests which of the following about most existing maps of Native American lands?

- ☐ They do not record the migrations of Native American tribes.
- ☐ They have been preserved primarily because of their connection with treaties involving land transfers.
- ☐ They tend to reflect archaeological evidence that has become outdated.
- ☐ They tend to be less accurate when they are based on oral reports than when they are based on written documents.
- ☐ They are not based primarily on the mapmakers' firsthand observations of Native American lands.

Essay 6

Anole lizard species that occur together (sympatrically) on certain Caribbean islands occupy different habitats: some live only in the grass, some only on tree trunks, and some only on twigs. These species also differ morphologically: grass dwellers are slender with long tails, tree dwellers are stocky with long legs, twig dwellers are slender but stubby-legged. What is striking about these lizards is not that coexisting species differ in morphology and habitat use (such differences are common among closely related sympatric species), but that the same three types of habitat specialists occur on each of four islands: Puerto Rico, Cuba, Hispaniola, and Jamaica. Moreover, the Puerto Rican twig species closely resembles the twig species of Cuba, Hispaniola, and Jamaica in morphology, habitat use, and behavior. Likewise, the specialists for other habitats are similar across the islands.

The presence of similar species on different islands could be variously explained. An ancestral species might have adapted to exploit a particular ecological niche on one island and then traveled over water to colonize other islands. Or this ancestral species might have evolved at a time when the islands were connected, which some of these islands may once have been. After the islands separated, the isolated lizard populations would have become distinct species while also retaining their ancestors' niche adaptations. Both of these scenarios imply that specialization to each niche occurred only once. Alternatively, each specialist could have arisen independently on each of the islands.

If each type of specialist evolved just once, then similar specialists on different islands would be closely related. Conversely, if the specialists evolved independently on each island, then a specialist on one island would be more closely related to other types of anoles on the same island—regardless of their ecological niches—than it would be to a similar specialist on a different island.

Biologists can infer how species are related evolutionarily by comparing DNA sequences for the same genes in different species. Species with similar DNA sequences for these genes are generally more closely related to each other than to species with less-similar DNA sequences. DNA evidence concerning the anoles led researchers to conclude that habitat specialists on one island are not closely related to the same habitat specialists elsewhere, indicating that specialists evolved independently on each island.

Q17

Which of the following best describes the purpose of the sentence in the highlighted text?

- ☐ It raises a question about why coexisting anole lizard species occupy the different types of habitats mentioned in the first sentence.
- ☐ It introduces a fact about anole lizard species that the passage will go on to explore.
- ☐ It identifies a particular aspect of anole lizard behavior that distinguishes anoles from other lizard species.
- ☐ It explains why one aspect of anole lizard species' habitat use has been difficult to account for.
- ☐ It points out a surprising relationship between morphology and habitat use that is explained in the concluding paragraph.

Q18

It can be inferred from the passage that which of the following is true of the Cuban tree-dwelling anole lizard and the Jamaican tree-dwelling anole lizard?

- ☐ They share a morphology characterized by stocky bodies and long legs.
- ☐ They have bodies that are relatively slender compared to their stubby legs.
- ☐ They differ significantly from one another in size.
- ☐ They differ significantly from one another in behavior and habitat use.
- ☐ They are genetically closely related to one another.

Q20

It can be inferred that the DNA evidence mentioned in the highlighted text supports which of the following statements about the twig-dwelling anole lizards of any one of the four Caribbean islands mentioned in the passage?

- ☐ They evolved from an ancestral species of twig dwellers at a time when their island was connected with the other three islands.
- ☐ They were once more similar morphologically to twig dwellers on the other three islands than they are at present.
- ☐ They are more closely related to tree- and grass-dwelling anoles on their island than they are to twig dwellers on the other three islands.
- ☐ Their habitat specialization as twig dwellers was influenced by the differences in the types of vegetation on the other three islands.
- ☐ Their DNA more closely resembles that of non-anole lizard species on their island than it does the DNA of anoles on the other three islands.

Q19

According to the passage, sympatric anole lizard species resemble many other closely related sympatric species in that the anole lizard species

- ☐ differ from one another in morphology and habitat use
- ☐ evolved on islands that were once connected
- ☐ appear to have adapted unusually quickly to new habitats
- ☐ have been able to colonize areas remote from their ancestral habitat
- ☐ occupy the same range of habitats in a number of different locations

Essay 7

Many United States companies believe that the rising cost of employees' health care benefits has hurt the country's competitive position in the global market by raising production costs and thus increasing the prices of exported and domestically sold goods. As a result, these companies have shifted health care costs to employees in the form of wage deductions or high deductibles. This strategy, however, has actually hindered companies' competitiveness. For example, cost shifting threatens employees' health because many do not seek preventive screening. Also, labor relations have been damaged: the percentage of strikes in which health benefits were a major issue rose from 18 percent in 1986 to 78 percent in 1989.

Health care costs can be managed more effectively if companies intervene in the supply side of health care delivery just as they do with other key suppliers: strategies used to procure components necessary for production would work in procuring health care. For example, the make/buy decision—the decision whether to produce or purchase parts used in making a product—can be applied to health care. At one company, for example, employees receive health care at an on-site clinic maintained by the company. The clinic fosters morale, resulting in a low rate of employees leaving the company. Additionally, the company has constrained the growth of health care costs while expanding medical services.

Q22

It can be inferred that the author of the passage would be most likely to agree with which of the following statements about health care costs in the United States?

- ☐ Employees are more willing to share health care costs with employers than they are to experience restrictions in other benefits.
- ☐ The way in which companies manage health care costs does not affect their ability to control the prices of exported and domestically sold goods.
- ☐ Health care costs in the United States have not risen as dramatically as many experts had predicted.
- ☐ The way in which a company manages its health care costs has an important effect on employees' health and loyalty to a company.
- ☐ Employees should take more financial responsibility for health care costs so that the burden on the employer can be lessened.

Essay 8

What kinds of property rights apply to Algonquian family hunting territories, and how did they come to be? **The dominant view** in recent decades has been that family hunting territories, like other forms of private landownership, were not found among Algonquians (a group of North American Indian tribes) before contact with Europeans but are the result of changes in Algonquian society brought about by the European-Algonquian fur trade, in combination with other factors such as ecological changes and consequent shifts in wildlife harvesting patterns. Another view claims that Algonquian family hunting territories predate contact with Europeans and are forms of private landownership by individuals and families. More recent fieldwork, however, has shown that individual and family rights to hunting territories form part of a larger land-use system of multifamilial hunting groups, that rights to hunting territories at this larger community level take precedence over those at the individual or family level, and that this system reflects a concept of spiritual and social reciprocity that conflicts with European concepts of private property. In short, there are now strong reasons to think that it was erroneous to claim that Algonquian family hunting territories ever were, or were becoming, a kind of private property system.

Q25

It can be inferred from the passage that proponents of the view mentioned in highlighted text believe which of the following about the origin of Algonquian family hunting territories?

- ☐ They evolved from multifamilial hunting territories.
- ☐ They are an outgrowth of reciprocal land-use practices.
- ☐ They are based on certain spiritual beliefs.
- ☐ They developed as a result of contact with Europeans.
- ☐ They developed as a result of trade with non-Algonquian Indian tribes.

Q21

Which of the following, if true, would provide the most support for the author's view about intervening on the supply side of health care?

- ☐ Most companies do not have enough employees to make on-site clinics cost-effective.
- ☐ Many companies with on-site clinics offer their employees the option of going outside the company's system to obtain health care.
- ☐ The costs of establishing and running an on-site clinic are demonstrably higher than the costs of paying for health care from an outside provider.
- ☐ Companies with health care clinics find that employees are unwilling to assist in controlling the costs of health care.
- ☐ Employees at companies with on-site clinics seek preventive screening and are thus less likely to delay medical treatment.

Q23

The passage is primarily concerned with

- ☐ providing support for a traditional theory
- ☐ comparing several explanations for a problem
- ☐ summarizing a well-known research study
- ☐ recommending an alternative approach
- ☐ criticizing the work of a researcher

Q24

The primary purpose of the passage is to

- ☐ provide an explanation for an unexpected phenomenon
- ☐ suggest that a particular question has yet to be answered
- ☐ present a new perspective on an issue
- ☐ defend a traditional view from attack
- ☐ reconcile opposing sides of an argument

Q26

According to the passage, recent fieldwork has revealed which of the following about rights to hunting territories in Algonquian societies?

- ☐ Rights at the individual level take precedence over those at the family level.
- ☐ Rights at the multifamilial level take precedence over those at the family level.
- ☐ These rights developed as a result of changes in Algonquian society brought about by contact with Europeans.
- ☐ These rights developed in response to European challenges to Algonquian private landownership.
- ☐ These rights developed in response to recent ecological changes that have negatively affected the availability of game.

Essay 9

The identification of femininity with morality and a belief in the innate moral superiority of women were fundamental to the cult of female domesticity in the nineteenth-century United States. Ironically, this ideology of female benevolence empowered women in the realm of social activism, enabling them to escape the confines of their traditional domestic spheres and to enter prisons, hospitals, battlefields, and slums. By following this path, some women came to wield considerable authority in the distribution of resources and services in their communities.

The sentimentalized concept of female benevolence bore little resemblance to women's actual work, which was decidedly unsentimental and businesslike, in that it involved chartering societies, raising money, and paying salaries. Moreover, in the face of legal limitations on their right to control money and property, women had to find ingenious legal ways to run and finance organized philanthropy. In contrast to the day-to-day reality of this work, the idealized image of female benevolence lent a sentimental and gracious aura of altruism to the very real authority and privilege that some women commanded—which explains why some women activists clung tenaciously to this ideology. But clinging to this ideology also prevented these women from even attempting to gain true political power because it implied a moral purity that precluded participation in the messy world of partisan politics.

Q28

Which of the following best summarizes the main point of the passage?

- ☐ The identification of femininity with morality promoted the notion of women's moral purity while excluding women from positions of authority in their communities.
- ☐ The belief in women's innate moral superiority allowed women to exercise political power without participating in partisan politics.
- ☐ The cult of female domesticity helped some women to gain power and privilege but kept most women confined to the domestic sphere.
- ☐ The ideology of female benevolence empowered women in the realm of social activism but placed limits on their direct political power.
- ☐ The idealization of female altruism enabled women to engage in philanthropic activities but prevented them from managing money and property.

Essay 10

Many economists believe that a high rate of business savings in the United States is a necessary precursor to investment, because business savings, as opposed to personal savings, comprise almost three-quarters of the national savings rate, and the national savings rate heavily influences the overall rate of business investment. These economists further postulate that real interest rates—the difference between the rates charged by lenders and the inflation rate—will be low when national savings exceed business investment (creating a savings surplus), and high when national savings fall below the level of business investment (creating a savings deficit). However, during the 1960's real interest rates were often higher when the national savings surplus was large. Counterintuitive behavior also occurred when real interest rates skyrocketed from 2 percent in 1980 to 7 percent in 1982, even though national savings and investments were roughly equal throughout the period. Clearly, real interest rates respond to influences other than the savings/investment nexus. Indeed, real interest rates may themselves influence swings in the savings and investment rates. As real interest rates shot up after 1979, foreign investors poured capital into the United States, the price of domestic goods increased prohibitively abroad, and the price of foreign-made goods became lower in the United States. As a result, domestic economic activity and the ability of businesses to save and invest were restrained.

Q31

The passage is primarily concerned with

- ☐ contrasting trends in two historical periods
- ☐ presenting evidence that calls into question certain beliefs
- ☐ explaining the reasons for a common phenomenon
- ☐ criticizing evidence offered in support of a well-respected belief
- ☐ comparing conflicting interpretations of a theory

Q27

According to the passage, the ideology of female benevolence was consistent with women taking part in each of the following spheres of activity EXCEPT

- ☐ organized philanthropy
- ☐ domestic life
- ☐ electoral politics
- ☐ fund-raising for worthy causes
- ☐ social work

Q29

It can be inferred from the passage that the author believes which of the following about women's relationship to politics in the nineteenth-century United States?

- ☐ Social activism was the best path to political power for women.
- ☐ Had women wished to seek true political power they would have had to abandon the ideology of female benevolence.
- ☐ Women's desire for true political power was the primary cause of their eventual abandonment of the ideology of female benevolence.
- ☐ Only women in positions of authority in their communities exercised political influence indirectly through men.
- ☐ Most men believed that they were protecting women by excluding them from politics.

Q30

The author of the passage would be most likely to agree with which of the following statements regarding the economists mentioned in the highlighted text?

- ☐ Their beliefs are contradicted by certain economic phenomena that occurred in the United States during the 1960's and the 1980's.
- ☐ Their theory fails to predict under what circumstances the prices of foreign and domestic goods are likely to increase.
- ☐ They incorrectly identify the factors other than savings and investment rates that affect real interest rates.
- ☐ Their belief is valid only for the United States economy and not necessarily for other national economies.
- ☐ They overestimate the impact of the real interest rate on the national savings and investment rates.

Q32

The passage suggests that the economists mentioned in the highlighted text would have expected which of the following to occur during the 1960's in the United States?

- ☐ Savings and investment rates to be equal in spite of high real interest rates
- ☐ Real interest rates to remain low when the national savings surplus was large
- ☐ Investment rates to remain constant while the national savings rate changed
- ☐ The national economy to suffer a decline as a result of high national savings rates
- ☐ Businesses to be encouraged to save due to high real interest rates

Essay 11

Although the industrial union organizations that emerged under the banner of the Congress of Industrial Organizations (CIO) in the 1930s and 1940s embraced the principles of nondiscrimination and inclusion, the role of women within unions reflected the prevailing **gender ideology** of the period. Elizabeth Faue's study of the labor movement in Minneapolis argues that women were marginalized by union bureaucratization and by the separation of unions from the community politics from which industrial unionism had emerged. Faue stresses the importance of women's contribution to the development of unions at the community level, contributions that made women's ultimate fate within the city's labor movement all the more poignant: as unions reached the peak of their strength in the 1940s, the community base that had made their success possible and to which women's contributions were so vital became increasingly irrelevant to unions' institutional life.

In her study of CIO industrial unions from the 1930s to the 1970s, Nancy F. Gabin also acknowledges the pervasive male domination in the unions, but maintains that women workers were able to create a political space within some unions to advance their interests as women. Gabin shows that, despite the unions' tendency to marginalize women's issues, working women's demands were a constant undercurrent within the union, and she stresses the links between the unions' women activists and the wave of feminism that emerged in the 1960s.

Q34 Which of the following can be inferred regarding the "gender ideology" mentioned in the highlighted text?

- ☐ It prevented women from making significant contributions to the establishment of industrial unions.
- ☐ It resulted from the marginalization of women in industrial unions.
- ☐ It had a significant effect on the advancement of women's issues within industrial unions.
- ☐ Its primary tenets were nondiscrimination and inclusion.
- ☐ Its effects were mitigated by the growth of industrial unions.

Essay 12

The storms most studied by climatologists have been those that are most easily understood by taking atmospheric measurements. Hurricanes and tornadoes, for example, are spatially confined, the forces that drive them are highly concentrated, and they have distinctive forms and readily quantifiable characteristics. Consequently, data about them are abundant, and their behavior is relatively well understood, although still difficult to predict.

Hurricanes and tornadoes are also studied because they are highly destructive storms, and knowledge about their behavior can help minimize injury to people and property. But other equally destructive storms have not been so thoroughly researched, perhaps because they are more difficult to study. A primary example is the northeaster, a type of coastal storm that causes significant damage along the eastern coast of North America. Northeasters, whose diffuse nature makes them difficult to categorize, are relatively weak low-pressure systems with winds that rarely acquire the strength of even the smallest hurricane. Although northeasters are perceived to be less destructive than other storms, the high waves associated with strong northeasters can cause damage comparable to that of a hurricane, because they can affect stretches of coast more than 1,500 kilometers long, whereas hurricanes typically threaten a relatively small ribbon of coastline—roughly 100 to 150 kilometers.

Q37

Which of the following can be inferred from the passage about storms that lend themselves to atmospheric measurements?

- ☐ They are more likely than other storms to be studied by climatologists.
- ☐ They are likely to be less highly concentrated than are other storms.
- ☐ They are likely to be more difficult to predict than are other storms.
- ☐ They occur less frequently along the eastern coast of North America than in other areas.
- ☐ They tend to affect larger areas than do other storms.

Q33

According to the passage, Faue's study and Gabin's study agree in that both

- ☐ attribute the inclusion of women in unions to the policies of the CIO
- ☐ emphasize the importance of unions at the community level
- ☐ argue that women played important roles in the establishment of industrial union organizations
- ☐ suggest that women in industrial union organizations played a subordinate role
- ☐ suggest that the interests of women workers were incompatible with those of unions in general

Q35

The author of the passage is primarily concerned with

- ☐ presenting two views
- ☐ reconciling two antithetical claims
- ☐ assessing conflicting evidence
- ☐ weakening a generally accepted argument
- ☐ tracing the development of an ideology

Q36

The primary purpose of the passage is to

- ☐ evaluate the relative amounts of damage caused by different storm types
- ☐ describe the difficulties of classifying destructive storms by type
- ☐ examine the relationship between wave height and the destructive potential of storms
- ☐ discuss a theory that explains the origins of violent storms
- ☐ discuss reasons why certain types of storms receive more study than others

Q38

According to the passage, which of the following is true of northeasters?

- ☐ They have only recently been identified as a distinct storm type.
- ☐ They are more destructive than tornadoes.
- ☐ They are low-pressure systems.
- ☐ They affect a relatively small segment of the eastern coast of North America.
- ☐ Their winds are typically as strong as those of small hurricanes.

Essay 13

Since the 1850s researchers have tried to show that variations in seasonal weather are connected in some way with sunspots, the outward sign of an increase in the Sun's activity. However, scientists lacked evidence supporting such a link until the mid-1980s, when van Loon and Labitzke compiled statistical evidence suggesting that a link exists and that it involves winds in the upper atmosphere above the equator which reverse their direction, from east to west or west to east, every twelve to fifteen months. This phenomenon is called the quasi-biennial oscillation (QBO), and although meteorologists have known about the QBO since the 1950s, until the 1980s no one recognized a subtle but statistically significant link between the QBO and certain patterns of weather. When the west to east direction of winds in the upper atmosphere coincides with periods of high solar activity that occur approximately every eleven years, winters in the eastern and central United States are very cold.

On this basis, some meteorologists predicted that the winter of 1988–1989 in the United States would be severe. However, the winter was a mild one overall, and the meteorologists' attempt to make the connection between the Sun and weather on the Earth appeared unsuccessful, until Barnston and Livezey proposed a hypothesis explaining why the prediction had failed. They argued that the prediction had not taken into account another important element in the climate: the more or less regular pattern of fluctuations in the temperature of the surface waters of the tropical Pacific Ocean.

Barnston and Livezey noted that when the water temperature is abnormally high—the phenomenon called El Niño—the chances of cold winter weather over North America increase. The opposite situation, when surface temperatures are well below normal—La Niña—is far less common. In fact, until late 1988 no one had seen the combination of La Niña, westerly winds in the upper atmosphere, and high solar activity. Thus, according to Barnston and Livezey, La Niña cancelled out the effect of the other two climatic factors and caused the mild winter of 1988–1989. Although this hypothesis is plausible, much research remains to be done before meteorologists can establish and explain the effects of increased solar activity on seasonal weather changes.

Q40

The passage provides information to support which of the following statements about La Niña?

- ☐ Its occurrence is more likely to coincide with periods of high solar activity rather than low solar activity.
- ☐ It is more likely to occur when the winds in the upper atmosphere above the equator are blowing from the west rather than from the east.
- ☐ It occurs more frequently than do shifts in the winds in the upper atmosphere above the equator.
- ☐ It occurs less frequently than does increased solar activity.
- ☐ It occurs less frequently than does El Niño.

Q42

The passage provides information to support which of the following statements about the occurrence of very cold winters in the eastern and central United States?

- ☐ Such winters are most likely to occur if the winds in the upper atmosphere over the equator blow from the east rather than from the west.
- ☐ Such winters are most likely to occur if increased activity of the Sun coincides with the appearance of La Niña.
- ☐ Such winters are less likely to occur if increased activity of the Sun coincides with the appearance of El Niño.
- ☐ Such winters are less likely to occur if there is an increase in the number of sunspots on the surface of the Sun.
- ☐ Such winters are less likely to occur if there is a drop in the temperature of the surface waters of the tropical Pacific Ocean.

Q39

The author of the passage would most likely agree with which of the following statements about the link between increased solar activity and certain seasonal weather changes on the Earth?

- ☐ Because the evidence supporting such a link is questionable, future research in this particular area does not look promising.
- ☐ Because it is unlikely that such a link can be definitely established, scientists should concentrate their efforts on investigating the role La Niña and other climatic factors play in influencing global weather patterns.
- ☐ Although some circumstantial evidence suggests that such a link exists, it is unlikely that future research will be able to confirm the existence of this link.
- ☐ There is evidence supporting the existence of such a link, but without further scientific investigation that evidence cannot be considered proof that such a link exists.
- ☐ Since the evidence clearly supports the existence of such a link, further research should focus on determining the implications of this link for the accurate prediction of changes in global weather patterns.

Q41

Which of the following most accurately describes the organization of the passage?

- ☐ A hypothesis is presented, a theory is constructed on the basis of the hypothesis, and then further research to expand the scope of the theory is proposed.
- ☐ A hypothesis is presented, an example that contradicts it is described, and then a hypothesis accounting for the apparent contradiction is proposed.
- ☐ Two opposing hypotheses are stated, and evidence confirming one of the hypotheses is considered.
- ☐ A phenomenon is described, a prediction about that phenomenon is made, and evidence confirming the accuracy of the prediction is presented.
- ☐ A prediction about a phenomenon is detailed and evaluated, and evidence demonstrating the inaccuracy of the prediction is presented.

Essay 14

For many years, historians thought that the development of capitalism had not faced serious challenges in the United States. Writing in the early twentieth century, Progressive historians sympathized with the battles waged by farmers and small producers against large capitalists in the late nineteenth century, but they did not question the widespread acceptance of laissez-faire (unregulated) capitalism throughout American history. Similarly, Louis Hartz, who sometimes disagreed with the Progressives, argued that Americans accepted laissez-faire capitalism without challenge because they lacked a feudal, precapitalist past. Recently, however, **some scholars** have argued that even though laissez-faire became the prevailing ethos in nineteenth-century America, it was not accepted without struggle. Laissez-faire capitalism, they suggest, clashed with existing religious and communitarian **norms** that imposed moral constraints on acquisitiveness to protect the weak from the predatory, the strong from corruption, and the entire culture from materialist excess. Buttressed by mercantilist notions that government should be both regulator and promoter of economic activity, these norms persisted long after the American Revolution helped unleash the economic forces that produced capitalism. These scholars argue that even in the late nineteenth century, with the government's role in the economy considerably diminished, laissez-faire had not triumphed completely. Hard times continued to revive popular demands for regulating business and softening the harsh edges of laissez-faire capitalism.

Q44

The passage suggests that the scholars mentioned in the first highlighted portion of text would agree with which of the following statements regarding the "norms" mentioned in the second highlighted portion of text?

- ☐ They provided a primary source of opposition to the development of laissez-faire capitalism in the United States in the nineteenth century.
- ☐ Their appeal was undermined by difficult economic times in the United States at the end of the nineteenth century.
- ☐ They disappeared in the United States in the late nineteenth century because of the triumph of laissez-faire capitalism.
- ☐ They facilitated the successful implementation of mercantilist notions of government in the United States in the nineteenth century.
- ☐ They are now recognized by historians as having been an important part of the ideology of the American Revolution.

Essay 15

For over a decade the most common policy advice given to developing countries by international development institutions has been to copy the export-oriented path of the newly industrializing countries, the celebrated NICs. These economies—Brazil, Hong Kong, Mexico, Singapore, South Korea, and Taiwan—burst into the world manufacturing market in the late 1960s and the 1970s; by 1978 these six economies, along with India, enjoyed unequalled growth rates for gross national product and for exports, with exports accounting for 70 percent of the developing world's manufactured exports. It was, therefore, not surprising that dozens of other countries attempted to follow their model, yet no countries—with the possible exceptions of Malaysia and Thailand—have even approached their success. In "No More NICs," Robin Broad and John Cavanagh search for the reasons behind these failures, identifying far-reaching changes in the global economy—from synthetic substitutes for commodity exports to unsustainable levels of foreign debt—as responsible for a glut economy offering little room for new entrants. Despite these changes, the authors maintain, the World Bank and the International Monetary Fund—the foremost international development institutions—have continued to promote the NIC path as the way for heavily indebted developing countries to proceed. And yet the futility of this approach should, according to the authors, be all too apparent so many years into a period of reduced growth in world markets.

Q47

The primary purpose of the passage is to

- ☐ report on a critique of a practice
- ☐ identify the solution to a problem
- ☐ indicate the advantages of a plan
- ☐ assess alternatives to a controversial practice
- ☐ examine the particulars of an agenda

Q43

The primary purpose of the passage is to

- ☐ reveal the underlying similarities of certain arguments regarding the development of capitalism in the United States
- ☐ synthesize two competing arguments regarding the development of capitalism in the United States
- ☐ defend an established argument regarding the development of capitalism in the United States
- ☐ summarize a scholarly refutation of an argument regarding the development of capitalism in the United States
- ☐ discuss a new methodology for the study of the development of capitalism in the United States

Q45

The author of the passage mentions the Progressives as examples of historians who

- ☐ saw farmers and small producers as having the potential to become a powerful force in American society
- ☐ did not question the widespread acceptance of laissez-faire capitalism in the United States, in spite of their sympathy for farmers and small producers
- ☐ did not agree that religious and communitarian norms were needed to soften the harsh edges of laissez-faire capitalism
- ☐ saw the development of laissez-faire capitalism in the United States as a historical inevitability, in spite of their lack of sympathy for large capitalists
- ☐ were somewhat out of the mainstream of the American historical profession

Q46

The author of the passage most clearly implies that Broad and Cavanagh disagree with the World Bank and the International Monetary Fund about which of the following?

- ☐ The ways in which the global economy has changed in recent years
- ☐ The causes of the unsustainable levels of foreign debt that the developing countries have incurred in recent years
- ☐ The level of foreign debt that should be maintained by developing countries
- ☐ The degree to which international development institutions should monitor the growth of developing countries
- ☐ The degree to which heavily indebted developing countries should emphasize exports in their overall economic strategy

Q48

The author mentions Malaysia and Thailand in order to

- ☐ acknowledge the appearance of implausibility in a broad claim
- ☐ concede the possible existence of counterexamples to a generalization
- ☐ offer additional evidence in support of a disputed conclusion
- ☐ illustrate the broad applicability of a hypothesis
- ☐ admit the limited scope of a standard analysis

Essay 16

There is no consensus among researchers regarding what qualifies a substance as a pheromone. While most agree on a basic definition of pheromones as chemicals released by one individual of a species which, when detected by another individual of the same species, elicit a specific behavioral or physiological response, some researchers also specify that the response to pheromones must be unconscious. In addition, the distinction between pheromones and odorants—chemicals that are consciously detected as odors—can be blurry, and **some researchers** classify pheromones as a type of odorant. Evidence that pheromone responses may not involve conscious odor perception comes from the finding that in many species, pheromones are processed by the vomeronasal (or accessory olfactory) system, which uses a special structure in the nose, the vomeronasal organ (VNO), to receive chemical signals. The neural connections between the VNO and the brain are separate from those of the main olfactory system, whose processing of odorants triggers sensations of smell. But while the VNO does process many animal pheromone signals, not all animal pheromones work through the VNO. Conversely, not all chemical signals transmitted via the VNO qualify as pheromones. For example, garter snakes detect a chemical signal from earthworms—one of their favorite foods—via the VNO, and they use this signal to track their prey.

Q50

It can be inferred from the passage that in classifying pheromones as a type of odorant, the researchers referred to in the highlighted text posit that

- ☐ pheromones are perceived consciously
- ☐ most pheromones are processed by the VNO
- ☐ most chemical signals processed by the VNO are pheromones
- ☐ pheromone perception does not occur exclusively between members of the same species
- ☐ pheromones do not always elicit a specific behavioral or physiological response

Essay 17

The professionalization of the study of history in the second half of the nineteenth century, including history's transformation from a literary genre to a scientific discipline, had important consequences not only for historians' perceptions of women but also for women as historians. The disappearance of women as objects of historical studies during this period has **elements of irony** to it. On the one hand, in writing about women, earlier historians had relied not on firsthand sources but rather on secondary sources; the shift to more rigorous research methods required that secondary sources be disregarded. On the other hand, the development of archival research and the critical editing of collections of documents began to reveal significant new historical evidence concerning women, yet this evidence was perceived as substantially irrelevant: historians saw political history as the general framework for historical writing. Because women were seen as belonging to the private rather than to the public sphere, the discovery of documents about them, or by them, did not, by itself, produce history acknowledging the contributions of women. In addition, genres such as biography and memoir, those forms of "particular history" that women had traditionally authored, fell into disrepute. The dividing line between "particular history" and general history was redefined in stronger terms, widening the gulf between amateur and professional practices of historical research.

Q53

According to the passage, the development of archival research and the critical editing of collections of documents had which of the following effects?

- ☐ Historians increasingly acknowledged women's contributions to history.
- ☐ Historians began to debate whether secondary sources could provide reliable information.
- ☐ Historians began to apply less rigorous scientific research criteria to the study of women's history.
- ☐ More evidence concerning women became available to historical researchers.
- ☐ Women began to study history as professional historians.

Q49

According to the passage, the fact that pheromones are processed by the VNO in many animal species has been taken as evidence of which of the following?

- ☐ The accessory and main olfactory systems are not separate systems.
- ☐ Odorants and pheromones are not distinct types of chemicals.
- ☐ Odorants and pheromones both elicit a specific behavioral response.
- ☐ Pheromones do not trigger conscious sensations of smell.
- ☐ Pheromones aid animals in tracking prey.

Q51

The primary purpose of the passage is to

- ☐ compare and contrast the ways in which the vomeronasal organ and the main olfactory system process chemicals
- ☐ summarize the debate over the role the vomeronasal organ plays in odor perception
- ☐ present some of the issues involved in the debate over what constitutes a pheromone
- ☐ propose a new definition of pheromones based on recent research
- ☐ argue that pheromones should be classified as a type of odorant

Q52

Which of the following best describes one of the "elements of irony" referred to in the highlighted text?

- ☐ Although the more scientific-minded historians of the second half of the nineteenth century considered women appropriate subjects for historical writing, earlier historians did not.
- ☐ Although archival research uncovered documentary evidence of women's role in history, historians continued to rely on secondary sources for information about women.
- ☐ Although historians were primarily concerned with writing about the public sphere, they generally relegated women to the private sphere.
- ☐ The scientific approach to history revealed more information about women, but that information was ignored.
- ☐ The professionalization of history, while marginalizing much of women's writing about history, enhanced the importance of women as historical subjects.

Q54

The passage is primarily concerned with

- ☐ describing some effects of the professionalization of the study of history on the writing of women's history
- ☐ explaining some reasons for the professionalization of the writing of history
- ☐ discussing the kinds of historical writing traditionally practiced by women
- ☐ contrasting the approach to the writing of history taken by women with the approach taken by men
- ☐ criticizing certain changes that occurred in the writing of history during the second half of the nineteenth century

Essay 18

The function of capital markets is to facilitate an exchange of funds among all participants, and yet in practice we find that certain participants are not on a par with others. Members of society have varying degrees of market strength in terms of information they bring to a transaction, as well as of purchasing power and creditworthiness, as defined by lenders.

For example, within minority communities, capital markets do not properly fulfill their functions; they do not provide access to the aggregate flow of funds in the United States. The financial system does not generate the credit or investment vehicles needed for underwriting economic development in minority areas. The problem underlying this dysfunction is found in a rationing mechanism affecting both the available alternatives for investment and the amount of financial resources. This creates a distributive mechanism penalizing members of minority groups because of their socioeconomic differences from others. The existing system expresses definite socially based investment preferences that result from the previous allocation of income and that influence the allocation of resources for the present and future. The system tends to increase the inequality of income distribution. And, in the United States economy, a greater inequality of income distribution leads to a greater concentration of capital in certain types of investments.

Most traditional financial-market analysis studies ignore financial markets' deficiencies in allocation because of analysts' inherent preferences for the simple model of perfect competition. Conventional financial analysis pays limited attention to issues of market structure and dynamics, relative costs of information, and problems of income distribution. Market participants are viewed as acting as entirely independent and homogeneous individuals with perfect foresight about capital-market behavior. Also, it is assumed that each individual in the community at large has the same access to the market and the same opportunity to transact and to express the preference appropriate to his or her individual interest. Moreover, it is assumed that transaction costs for various types of financial instruments (stocks, bonds, etc.) are equally known and equally divided among all community members.

Q55

According to the passage, analysts have conventionally tended to view those who participate in financial markets as

- ☐ judging investment preferences in terms of the good of society as a whole
- ☐ influencing the allocation of funds through prior ownership of certain kinds of assets
- ☐ varying in market power with respect to one another
- ☐ basing judgments about future events mainly on chance
- ☐ having equal opportunities to engage in transactions

Q56

According to the passage, a questionable assumption of the conventional theory about the operation of financial markets is that

- ☐ creditworthiness as determined by lenders is a factor determining market access
- ☐ market structure and market dynamics depend on income distribution
- ☐ a scarcity of alternative sources of funds would result from taking socioeconomic factors into consideration
- ☐ those who engage in financial-market transactions are perfectly well informed about the market
- ☐ inequalities in income distribution are increased by the functioning of the financial market

Q58

A difference in which of the following would be an example of inequality in transaction costs as alluded to in the highlighted text?

- ☐ Maximum amounts of loans extended by a bank to businesses in different areas
- ☐ Fees charged to large and small investors for purchasing stocks
- ☐ Prices of similar goods offered in large and small stores in an area
- ☐ Stipends paid to different attorneys for preparing legal suits for damages
- ☐ Exchange rates in dollars for currencies of different countries

Q57

The passage states that traditional studies of the financial market overlook imbalances in the allocation of financial resources because

- ☐ an optimum allocation of resources is the final result of competition among participants
- ☐ those performing the studies choose an oversimplified description of the influences on competition
- ☐ such imbalances do not appear in the statistics usually compiled to measure the market's behavior
- ☐ the analysts who study the market are unwilling to accept criticism of their methods as biased
- ☐ socioeconomic differences form the basis of a rationing mechanism that puts minority groups at a disadvantage

Q1 D	Q21 E	Q41 B
Q2 D	Q22 D	Q42 E
Q3 B	Q23 D	Q43 D
Q4 D	Q24 C	Q44 A
Q5 E	Q25 D	Q45 B
Q6 B	Q26 B	Q46 E
Q7 B	Q27 C	Q47 A
Q8 E	Q28 D	Q48 B
Q9 B	Q29 B	Q49 D
Q10 B	Q30 A	Q50 A
Q11 D	Q31 B	Q51 C
Q12 D	Q32 B	Q52 D
Q13 C	Q33 D	Q53 D
Q14 D	Q34 C	Q54 A
Q15 D	Q35 A	Q55 D
Q16 E	Q36 E	Q56 D
Q17 B	Q37 A	Q57 B
Q18 A	Q38 C	Q58 B
Q19 A	Q39 D	
Q20 C	Q40 D	