As promised, here's the first in the series. This one is actually a GMAT passage. You can expect higher difficulty RCs in CAT to be of this level. Give it a try. Will post the answers in the evening.

Passage:

Comparable worth, as a standard applied to eliminate inequities in pay, insists that the values of certain tasks performed in dissimilar jobs can be compared. In the last decade, this approach has become a critical social policy issue, as large numbers of private-sector firms and industries as well as federal, state, and local governmental entities have adopted comparable worth policies or begun to consider doing so.

This widespread institutional awareness of comparable worth indicates increased public awareness that pay inequities—that is, situations in which pay is not "fair" because it does not reflect the true value of a job—exist in the labor market. However, the question still remains: have the gains already made in pay equity under comparable worth principles been of a precedent-setting nature or are they mostly transitory, a function of concessions made by employers to mislead female employees into believing that they have made long-term pay equity gains?

Comparable worth pay adjustments are indeed precedent-setting. Because of the principles driving them, **other mandates** that can be applied to reduce or eliminate unjustified pay gaps between male and female workers have not remedied perceived pay inequities satisfactorily for the litigants in cases in which men and women hold different jobs. But whenever comparable worth principles are applied to pay schedules, perceived unjustified pay differences are eliminated. In this sense, then, comparable worth is more comprehensive than other mandates, such as the Equal Pay Act of 1963 and Title VII of the Civil Rights Act of 1964. Neither compares tasks in dissimilar jobs (that is, jobs across occupational categories) in an effort to determine whether or not what is necessary to perform these tasks—know-how, problem-solving, and accountability—can be quantified in terms of its dollar value to the employer. Comparable worth, on the other hand, takes as its premise that certain tasks in dissimilar jobs may require a certain amount of training, effort, and skill; may carry similar responsibility; may be carried on in an environment having a similar impact upon the worker; and may have a similar dollar value to the employer.

Questions:

- 1. It can be inferred from the passage that application of "other mandates" (marked with *) would be unlikely to result in an outcome satisfactory to the female employees in which of the following situations?
- I. Males employed as long-distance truck drivers for a furniture company make \$3.50 more per hour than do females with comparable job experience employed in the same capacity. II. Women working in the office of a cement company content that their jobs are as demanding and valuable as those of the men working outside in the cement factory, but the women are paid much less per hour.
- III. A law firm employs both male and female paralegals with the same educational and

career backgrounds, but the starting salary for male paralegals is \$5,000 more than for female paralegals.

- (A) I only
- (B) II only
- (C) III only
- (D) I and II only
- (E) I and III only
- 2. According to the passage, which of the following is true of comparable worth as a policy?
- (A) Comparable worth policy decisions in pay-inequity cases have often failed to satisfy the complainants.
- (B) Comparable worth policies have been applied to both public-sector and private-sector employee pay schedules.
- (C) Comparable worth as a policy has come to be widely criticized in the past decade.
- (D) Many employers have considered comparable worth as a policy but very few have actually adopted it.
- (E) Early implementations of comparable worth policies resulted in only transitory gains in pay equity.
- 3. Which of the following best describes an application of the principles of comparable worth as they are described in the passage?
- (A) The current pay, rates of increase, and rates of promotion for female mechanics are compared with those of male mechanics.
- (B) The training, skills, and experience of computer programmers in one division of a corporation are compared to those of programmers making more money in another division.
- (C) The number of women holding top executive positions in a corporation is compared to the number of women available for promotion to those positions, and both tallies are matched to the tallies for men in the same corporation.
- (D) The skills, training, and job responsibilities of the clerks in the township tax assessor's office are compared to those of the much better-paid township engineers.
- (E) The working conditions of female workers in a hazardous-materials environment are reviewed and their pay schedules compared to those of all workers in similar environments across the nation.
- 4. According to the passage, comparable worth principles are different in which of the following ways from other mandates intended to reduce or eliminate pay inequities?
- (A) Comparable worth principles address changes in the pay schedules of male as well as female workers.
- (B) Comparable worth principles can be applied to employees in both the public and the private sector.
- (C) Comparable worth principles emphasize the training and skill of workers.
- (D) Comparable worth principles require changes in the employer's resource allocation.
- (E) Comparable worth principles can be used to quantify the value of elements of dissimilar jobs.

P.S.: I'll be spending a lot of time doing this almost every day. The only request I have in return is that you support us by adding your friends who are preparing for CAT to the group and keep the group active.

Here's the second one in the series. Support us by adding your friends to the group.

While space looks empty, it is in fact filled with matter. In 1933, Swiss astrophysicist Fritz Zwicky coined the term "dark matter" to identify the substance that makes up an estimated 85% of all matter in the universe. Ever since, however, the search for the particles that compose dark matter has been ongoing with hypotheses and projections filling the minds of determined physicists in search of a breakthrough.

Among the most promising hypotheses is one that includes neutralinos, a proposed particle akin to the Higgs Boson particle as a building block of the universe we know. Neutralinos, it is proposed, will annihilate each other when they collide, producing both a matter and an antimatter equivalent (an electron and a positron, respectively). In such a reaction, each particle would carry with it as much energy as one neutralino has mass (per Einstein's theory of relativity), and this energy may well provide the means for which scientists can finally identify these sought-after particles.

The plausibility of this theory has galvanized support in the scientific community for extensive research. Aboard the International Space Station lies the Alpha Magnetic Spectrometer (AMS), which is using magnetized sensors to identify the charges that would come along with these proposed particles. As it measures charges across space, AMS focuses on the variance of the ratio of positrons to electrons, under the theory that the "positron fraction" should peak when these high-energy positrons are created from dark-matter annihilation. To date, AMS has recorded over 30 billion cosmic rays and research indicates that it has indeed viewed hundreds of thousands of charged particles consistent with the theory of positrons. But scientists remain stoic on the issue, noting that these charges are potentially also consistent with those released by pulsars, the aftermath of exploded stars. Accordingly, research continues to better delineate between the positron fraction expected from pulsars and that from neutralinos.

- 1. Which of the following best summarizes the primary purpose of the passage?
- A. To compare the search for neutralinos with that for the Higgs Boson
- B. To detail the current hypotheses regarding the origin of dark matter
- C. To prove that positrons are created from dark matter annihilation
- D. To present a hypothesis to explain a mysterious scientific phenomenon
- E.To explain the results of a current scientific research study
- 2. Which of the following can be inferred from the passage?
- A. The highest positron fractions that AMS records will be from dark matter particles.
- B. Electrons and positrons carry approximately the same amount of energy.
- C. AMS has been able to view hundreds of thousands of positrons.
- D. The charges emitted by pulsars are indistinguishable from the charges emitted by positrons.
- E. The neutralino hypothesis is currently accepted as the most plausible existing explanation for dark matter.
- 3. According to the passage, scientists theorize that dark matter is created when
- A. The positron fraction reaches its peak value

- B. Pulsars result as the remnants of stellar explosion
- C. Positrons release the same amount of energy as a neutralino has mass
- D. Neutralinos collide with one another
- E. Highly charged electrons annihilate positrons

Today's RC. This one is from XAT 2015

Certain variants of key behavioural genes, "risk allele" make people more vulnerable to certain mood, psychiatric, or personality disorders. An allele is any of the variants of a gene that takes more than one form. A risk allele, then, is simply a gene variant that increases your likelihood of developing a problem.

Researchers have identified a dozen-odd gene variants that can increase a person's susceptibility to depression, anxiety, and antisocial, sociopathic, or violent behaviours, and other problems—if, and only if, the person carrying the variant suffers a traumatic or stressful childhood or faces particularly trying experiences later in life. This hypothesis, often called the "stress diathesis" or "genetic vulnerability" model, has come to saturate psychiatry and behavioural science.

Recently, however, an alternate hypothesis has emerged from this one and is turning it inside out. This new model suggests that it's a mistake to understand these "risk" genes only as liabilities. According to this new thinking, these 'bad genes' can create dysfunction in unfavourable contexts — but they can also enhance function in favourable contexts. The genetic sensitivities to negative experience that the vulnerability hypothesis has identified, it follows, are just the downside of a bigger phenomenon: a heightened genetic sensitivity to all experience.

This hypothesis has been anticipated by Swedish folk wisdom which has long spoken of "dandelion" children. These dandelion children – equivalent to our "normal" or "healthy" children, with "resilient" genes – do pretty well almost anywhere, whether raised in the equivalent of a 10 sidewalk crack or a well-tended garden. There are also "orchid" children, who will wilt if ignored or maltreated but bloom spectacularly with greenhouse care. According to this orchid hypothesis, risk becomes possibility; vulnerability becomes plasticity and responsiveness. Gene variants generally considered misfortunes can instead now be understood as highly leveraged evolutionary bets, with both high risks and high potential rewards.

In this view, having both dandelion and orchid kids greatly raises a family's (and a species') chance of succeeding, over time and in any given environment. The behavioural diversity provided by these two different types of temperament also supplies precisely what a smart, strong species needs if it is to spread across and dominate a changing world. The many dandelions in a population provide an underlying stability. The less-numerous orchids, meanwhile, may falter in some environments but can excel in those that suit them. And even when they lead troubled early lives, some of the resulting heightened responses to adversity that can be problematic in everyday life — increased novelty-seeking, restlessness of attention, elevated risk-taking, or aggression—can prove advantageous in certain challenging situations: wars, social strife of many kinds, and migrations to new environments. Together, the steady dandelions and the mercurial orchids offer an adaptive flexibility that neither can provide alone. Together, they open a path to otherwise unreachable individual and collective achievements.

- Q.1. The passage suggests 'orchids':
- A. are insufficient in number.
- B. are limited to greenhouses.
- C. end up weaker as compared to dandelions.
- D. thrive in anaesthetised conditions.
- E. are always too delicate to survive.
- Q.2. Which of the following statements correctly echoes the author's view?
- A. Persons carrying risk allele end up being self-destructive and antisocial.
- B. Orchids possess humankind's phenomenal adaptability and evolutionary success.
- C. With a bad environment and poor parenting, all children will have a normal life.
- D. Children born with genetic vulnerability need not necessarily be sociopaths.
- E. Genes not only makes you sensitive to disorders, but are also responsible for failures of societies.
- Q.3. The word 'diathesis' means:
- A. susceptible to disease
- B. two-pronged hypothesis
- C. connected with two kidneys
- D. missing parts of the body
- E. living in two different environments
- Q.4. Mr. Good and Mr. Evil were batch-mates during the college. Five years after graduating, Mr. Evil was put behind bars for financial fraud while Mr. Good was running a successful NGO, working for orphans. Mr. Good was raised in a protective environment while Mr. Evil was a self-made man. Based on the above information, which of the following statements is definitely correct?
- A. It can be concluded that Mr. Evil is a 'dandelion', but nothing can be concluded about Mr. Good.
- B. It can be concluded that Mr. Evil is an 'orchid', but nothing can be concluded about Mr. Good.
- C. It can be concluded that Mr. Good is a 'dandelion', but nothing can be concluded about Mr. Evil.
- D. It can be concluded that both Mr. Good and Mr. Evil are 'orchid'.
- E. It is not possible to conclude about 'children typology' of the two batch mates.

Easy one for today

Human beings, born with a drive to explore and experiment, thrive on learning. Unfortunately, corporations are oriented predominantly toward controlling employees, not fostering their learning. Ironically, this orientation creates the very conditions that predestine employees to mediocre performances. Over time, superior performance requires superior learning, because long-term corporate survival depends on continually exploring new business and organizational opportunities that can create new sources of growth.

To survive in the future, corporations must become "learning organizations," enterprises that are constantly able to adapt and expand their capabilities. To accomplish this, corporations must change how they view employees. The traditional view that a single charismatic leader should set the corporation's direction and make key decisions is rooted in an individualistic worldview. In an increasingly interdependent world, such a view is no longer viable. in learning organizations, thinking and acting are integrated at all job levels. Corporate leadership is shared, and leaders become designers, teachers, and stewards, roles requiring new skills: the ability to build shared vision, to reveal and challenge prevailing mental models, and to foster broader, more integrated patterns of thinking. in short, leaders in learning organizations are responsible for building organizations in which employees are continually learning new skills and expanding their capabilities to shape their future.

- Q.1. According to the passage, traditional corporate leaders differ from leaders in learning organizations in that former
- A) Encourage employees to concentrate on developing a wide range of skills
- B) Enable employees to recognize and confront dominant corporate models and to develop alternative models
- C) Make important policy decisions alone and then require employees in the corporation to abide by those decisions
- D) Instill confidence in employees because of their willingness to make risky decisions and accept their consequences
- E) Are concerned with offering employees frequent advice and career guidance
- Q.2. Which of the following best describes employees behavior encouraged within learning organizations, as such organizations are described in the passage?
- A) Carefully defining one's job description and taking care to avoid deviation from it
- B) Designing mentoring programs that train new employees to follow procedures that have been used for many years
- C) Concentrating one's efforts on mastering one aspect of a complicated task
- D) Studying an organizational problem, preparing a report, and submitting it to a corporate leader for approval
- $E) \ Analyzing \ a \ problem \ related to \ productivity, \ making \ a \ decision \ about \ a \ solution$, and implementing that solution
- Q.3. According to the author of the passage, corporate leaders of the future should do which of the following
- A) They should encourage employees put long-term goals ahead of short-term profits

- B) They should exercise more control over employees in order to constrain production costs
- C) They should redefine incentives for employees' performance improvement
- D) They should provide employees with opportunities to gain new skills and expand their capabilities
- E) They should promote individual managers who are committed to established company practices
- Q.4. The primary purpose of the passage is to
- A) endorse a traditional corporate structure
- B) introduce a new approach to corporate leadership and evaluate criticisms of it
- C) explain competing theories about management practices and reconcile them
- D) contrast two typical corporate organizational structures
- E) propose an alternative to a common corporate approach

Tough one for today with good inference questions #RCoftheDay #5

Around 1960, mathematician Edward Lorenz found unexpected behavior in apparently simple equations representing atmospheric air flows. Whenever he reran his model with the same inputs, different outputs resulted—although the model lacked any random elements. Lorenz realized that tiny rounding errors in his analog computer mushroomed over time, leading to erratic results. His findings marked a seminal moment in the development of chaos theory, which, despite its name, has little to do with randomness.

To understand how unpredictability can arise from deterministic equations, which do not involve chance outcomes, consider the non-chaotic system of two poppy seeds placed in a round bowl. As the seeds roll to the bowl's center, a position known as a point attractor, the distance between the seeds shrinks. If, instead, the bowl is flipped over, two seeds placed on top will roll away from each other. Such a system, while still not technically chaotic, enlarges initial differences in position.

Chaotic systems, such as a machine mixing bread dough, are characterized by both attraction and repulsion. As the dough is stretched, folded and pressed back together, any poppy seeds sprinkled in are intermixed seemingly at random. But this randomness is illusory. In fact, the poppy seeds are captured by "strange attractors," staggeringly complex pathways whose tangles appear accidental but are in fact determined by the system's fundamental equations.

During the dough-kneading process, two poppy seeds positioned next to each other eventually go their separate ways. Any early divergence or measurement error is repeatedly amplified by the mixing until the position of any seed becomes effectively unpredictable. It is this "sensitive dependence on initial conditions" and not true randomness that generates unpredictability in chaotic systems, of which one example may be the Earth's weather. According to the popular interpretation of the "Butterfly Effect," a butterfly flapping its wings causes hurricanes. A better understanding is that the butterfly causes uncertainty about the precise state of the air. This microscopic uncertainty grows until it encompasses even hurricanes. Few meteorologists believe that we will ever be able to predict rain or shine for a particular day years in the future.

- 1. The main purpose of this passage is to
- (A) Explain complicated aspects of certain physical systems
- (B) trace the historical development of scientific theory
- (C) distinguish a mathematical patter from its opposition
- (D) describe the spread of a technical model from one field of study to others
- (E) contrast possible causes of weather phenomena
- 2. In the example discussed in the passage, what is true about poppy seeds in bread dough, once the dough has been thoroughly mixed?
- (A) They have been individually stretched and folded over, like miniature versions of the entire dough
- (B) They are scattered in random clumps throughout the dough
- (C) They are accidentally caught in tangled objects called strange attractors

- (D) They are bound to regularly dispersed patterns of point attractors
- (E) They are positions dictated by the underlying equations that govern the mixing process
- 3. According to the passage, the rounding errors in Lorenz's model
- (A) Indicated that the model was programmed in a fundamentally faulty way
- (B) were deliberately included to represent tiny fluctuations in atmospheric air currents
- (C) were imperceptibly small at first, but tended to grow
- (D) were at least partially expected, given the complexity of the actual atmosphere
- (E) shrank to insignificant levels during each trial of the model
- 4. The passage mentions each of the following as an example of potential example of chaotic or non-chaotic system Except
- (A) a dough-mixing machine
- (B) atmospheric weather patters
- (C) poppy seeds place on top of an upside-down bowl
- (D) poppy seeds placed in a right-side up bowl
- (E) fluctuating butterfly flight patterns
- 5. It can be inferred from the passage that which of the following pairs of items would most likely follow typical pathways within a chaotic system?
- (A) two particles ejected in random directions from the same decaying atomic nucleus
- (B) two stickers affixed to balloon that expands and contracts over and over again
- (C) two avalanches sliding down opposite sides of the same mountain
- (D) two baseballs placed into an active tumble dryer
- (E) two coins flipped into a large bowl

RC Source: Manhattan

In addition to conventional galaxies, the universe contains very dim galaxies that until recently went unnoticed by astronomers. Possibly as numerous as conventional galaxies, these galaxies have the same general shape and even the same approximate number of stars as a common type of conventional galaxy, the spiral, but tend to be much larger. Because these galaxies' mass is spread out over larger areas, they have far fewer stars per unit volume than do conventional galaxies. Apparently these low-surface-brightness galaxies, as they are called, take much longer than conventional galaxies to condense their primordial gas and convert it to stars—that is, they evolve much more slowly.

These galaxies may constitute an answer to the long-standing puzzle of the missing baryonic mass in the universe. Baryons—subatomic particles that are generally protons or neutrons—are the source of stellar, and therefore galactic, luminosity, and so their numbers can be estimated based on how luminous galaxies are. However, the amount of helium in the universe, as measured by spectroscopy, suggests that there are far more baryons in the universe than estimates based on galactic luminosity indicate. Astronomers have long speculated that the missing baryonic mass might eventually be discovered in intergalactic space or as some large population of galaxies that are difficult to detect.

- Q.1. According to the passage, conventional spiral galaxies differ from low-surface-brightness galaxies in which of the following ways?
- (A) They have fewer stars than do low-surface brightness galaxies.
- (B) They evolve more quickly than low-surface brightness galaxies.
- (C) They are more diffuse than low-surface brightness galaxies.
- (D) They contain less helium than do low-surface brightness galaxies.
- (E) They are larger than low-surface-brightness galaxies.
- Q.2. It can be inferred from the passage that which of the following is an accurate physical description of typical low-surface-brightness galaxies?
- (A) They are large spiral galaxies containing fewer stars than do conventional galaxies.
- (B) They are compact but very dim spiral galaxies.
- (C) They are diffuse spiral galaxies that occupy a large volume of space.
- (D) They are small, young spiral galaxies that contain a high proportion of primordial gas.
- (E) They are large, dense spirals with low luminosity.
- Q.3. It can be inferred from the passage that the "long standing puzzle" refers to which of the following?
- (A) The difference between the rate at which conventional galaxies evolve and the rate at which low-surface-brightness galaxies evolve
- (B) The discrepancy between estimates of total baryonic mass derived from measuring helium and estimates based on measuring galactic luminosity
- (C) The inconsistency between the observed amount of helium in the universe and the number of stars in typical low-surface-brightness galaxies
- (D) Uncertainties regarding what proportion of baryonic mass is contained in intergalactic space and what proportion in conventional galaxies
- (E) Difficulties involved in detecting very distant galaxies and in investigating their luminosity

- Q.4. The author implies that low-surface-brightness galaxies could constitute an answer to the puzzle discussed in the second paragraph primarily because
- (A) they contain baryonic mass that was not taken into account by researchers using galactic luminosity to estimate the number of baryons in the universe
- (B) they, like conventional galaxies that contain many baryons, have evolved from massive, primordial gas clouds
- (C) they may contain relatively more helium, and hence more baryons, than do galaxies whose helium content has been studied using spectroscopy
- (D) they have recently been discovered to contain more baryonic mass than scientists had thought when low-surface-brightness galaxies were first observed
- (E) they contain stars that are significantly more luminous than would have been predicted on the basis of initial studies of luminosity in low surface-brightness galaxies
- Q.5. The author mentions the fact that baryons are the source of stars' luminosity primarily in order to explain
- (A) how astronomers determine that some galaxies contain fewer stars per unit volume than do others
- (B) how astronomers are able to calculate the total luminosity of a galaxy
- (C) why astronomers can use galactic luminosity to estimate baryonic mass
- (D) why astronomers' estimates of baryonic mass based on galactic luminosity are more reliable than those based on spectroscopic studies of helium
- (E) how astronomers know bright galaxies contain more baryons than do dim galaxies
- Q.6. The author of the passage would be most likely to disagree with which of the following statements?
- (A) Low-surface-brightness galaxies are more difficult to detect than are conventional galaxies.
- (B) Low-surface-brightness galaxies are often spiral in shape.
- (C) Astronomers have advanced plausible ideas about where missing baryonic mass might be found.
- (D) Astronomers have devised a useful way of estimating the total baryonic mass in the universe.
- (E) Astronomers have discovered a substantial amount of baryonic mass in intergalactic space.
- Q.7. The primary purpose of the passage is to
- (A) describe a phenomenon and consider its scientific significance
- (B) contrast two phenomena and discuss a puzzling difference between them
- (C) identify a newly discovered phenomenon and explain its origins
- (D) compare two classes of objects and discuss the physical properties of each
- (E) discuss a discovery and point out its inconsistency with existing theory

The majority of successful senior managers do not closely follow the classical rational model of first clarifying goals, assessing the problem, formulating options, estimating likelihoods of success, making a decision, and only then taking action to implement the decision. Rather, in their day-by-day tactical maneuvers, these senior executives rely on what is vaguely termed "intuition" to manage a network of interrelated problems that require them to deal with ambiguity, inconsistency, novelty, and surprise; and to integrate action into the process of thinking.

Generations of writers on management have recognized that some practicing managers rely heavily on intuition. In general, however, such writers display a poor grasp of what intuition is. Some see it as the opposite of rationality; others view it as an excuse for capriciousness.

Isenberg's recent research on the cognitive processes of senior managers reveals that managers' intuition is neither of these. Rather, senior managers use intuition in at least five distinct ways. First, they intuitively sense when a problem exists. Second, managers rely on intuition to perform well-learned behavior patterns rapidly. This intuition is not arbitrary or irrational, but is based on years of painstaking practice and hands-on experience that build skills. A third function of intuition is to synthesize isolated bits of data and practice into an integrated picture, often in an "Aha!" experience. Fourth, some managers use intuition as a check on the results of more rational analysis. Most senior executives are familiar with the formal decision analysis models and tools, and those who use such systematic methods for reaching decisions are occasionally leery of solutions suggested by these methods which run counter to their sense of the correct course of action. Finally, managers can use intuition to bypass in-depth analysis and move rapidly to engender a plausible solution. Used in this way, intuition is an almost instantaneous cognitive process in which a manager recognizes familiar patterns.

One of the implications of the intuitive style of executive management is that "thinking" is inseparable from acting. Since managers often "know" what is right before they can analyze and explain it, they frequently act first and explain later. Analysis is inextricably tied to action in thinking/acting cycles, in which managers develop thoughts about their companies and organizations not by analyzing a problematic situation and then acting, but by acting and analyzing in close concert.

Given the great uncertainty of many of the management issues that they face, senior managers often instigate a course of action simply to learn more about an issue. They then use the results of the action to develop a more complete understanding of the issue. One implication of thinking/acting cycles is that action is often part of defining the problem, not just of implementing the solution.

- Q.1. According to the passage, senior managers use intuition in all of the following ways EXCEPT to
- (A) speed up of the creation of a solution to a problem
- (B) identify a problem
- (C) bring together disparate facts

- (D) stipulate clear goals
- (E) evaluate possible solutions to a problem
- Q.2. The passage suggests which of the following about the writers on management mentioned in the paragraph?
- (A) They have criticized managers for not following the classical rational model of decision analysis.
- (B) They have not based their analyses on a sufficiently large sample of actual managers.
- (C) They have relied in drawing their conclusions on what managers say rather than on what managers do.
- (D) They have misunderstood how managers use intuition in making business decisions.
- (E) They have not acknowledged the role of intuition in managerial practice.
- Q.3. Which of the following best exemplifies an Aha! experience as it is presented in the passage?
- (A) A manager risks taking an action whose outcome is unpredictable to discover whether the action changes the problem at hand.
- (B) A manager performs well-learned and familiar behavior patterns in creative and uncharacteristic ways to solve a problem.
- (C) A manager suddenly connects seemingly unrelated facts and experiences to create a pattern relevant to the problem at hand.
- (D) A manager rapidly identifies the methodology used to compile data yielded by systematic analysis.
- (E) A manager swiftly decides which of several sets of tactics to implement in order to deal with the contingencies suggested by a problem.
- Q.4. According to the passage, the classical model of decision analysis includes all of the following EXCEPT
- (A) evaluation of a problem
- (B) creation of possible solutions to a problem
- (C) establishment of clear goals to be reached by the decision
- (D) action undertaken in order to discover more information about a problem
- (E) comparison of the probable effects of different solutions to a problem
- Q.5. It can be inferred from the passage that which of the following would most probably be one major difference in behavior between Manager X, who uses intuition to reach decisions, and Manager Y, who uses only formal decision analysis?
- (A) Manager X analyzes first and then acts; Manager Y does not.
- (B) Manager X checks possible solutions to a problem by systematic analysis; Manager Y does not.
- (C) Manager X takes action in order to arrive at the solution to a problem; Manager Y does not.
- (D) Manager Y draws on years of hands-on experience in creating a solution to a problem; Manager X does not.
- (E) Manager Y depends on day-to-day tactical maneuvering; Manager X does not.
- Q.6. The passage provides support for which of the following statements?
- (A) Managers who rely on intuition are more successful than those who rely on formal

decision analysis.

- (B) Managers cannot justify their intuitive decisions.
- (C) Managers' intuition works contrary to their rational and analytical skills.
- (D) Logical analysis of a problem increases the number of possible solutions.
- (E) Intuition enables managers to employ their practical experience more efficiently.

Symptoms of Parkinson's Disease, such as tremors, are thought to be caused by low dopamine levels in the brain. Current treatments of Parkinson's disease are primarily reactionary, aiming to replenish dopamine levels after dopamine-producing neurons in the brain have died. Without a more detailed understanding of the behavior of dopamine-producing neurons, it has been impossible to develop treatments that would prevent the destruction of these neurons in Parkinson's patients.

Recent research provides insight into the inner workings of dopamine-producing neurons, and may lead to a new drug treatment that would proactively protect the neurons from decay. By examining the alpha-synuclein protein in yeast cells, scientists have determined that toxic levels of the protein have a detrimental effect on protein transfer within the cell. More specifically, high levels of alpha-synuclein disrupt the flow of proteins from the endoplasmic reticulum, the site of protein production in the cell, to the Golgi apparatus, the component of the cell that modifies and sorts the proteins before sending them to their final destinations within the cell. When the smooth transfer of proteins from the endoplasmic reticulum to the Golgi apparatus is interrupted, the cell dies.

With this in mind, researchers conducted a genetic screen in yeast cells in order to identify any gene that works to reverse the toxic levels of alpha-synuclein in the cell. Researchers discovered that such a gene does in fact exist, and have located the genetic counterpart in mammalian nerve cells, or neurons. This discovery has led to new hopes that drug therapy could potentially activate this gene, thereby suppressing the toxicity of alpha-synuclein in dopamine-producing neurons.

While drug therapy to suppress alpha-synuclein has been examined in yeast, fruitflies, roundworms, and cultures of rat neurons, researchers are hesitant to conclude that such therapies will prove successful on human patients. Alpha-synuclein toxicity seems to be one cause for the death of dopamine-producing neurons in Parkinson's patients, but other causes may exist. Most scientists involved with Parkinson's research do agree, however, that such promising early results provide a basis for further testing.

- 1. It can be inferred from the passage that a yeast cell with toxic levels of alpha-synuclein will die because
- a. low levels of dopamine will disrupt the flow of proteins from the endoplasmic reticulum to the Golgi aparatus
- b. the gene that suppresses alpha-synuclein is missing or is not functioning properly in such veast cells
- c. drug therapy has proven to be ineffective in yeast cells
- d.the normal distribution of proteins to the different cell components outside the Golgi apparatus will be affected
- e. alpha-synuclein is by nature a toxic protein
- 2. One function of the third paragraph of the passage is to
- a. highlight the many similarities between yeast cells and mammalian nerve cells
- b. explain in detail the methods used to conduct a genetic screen in yeast cells
- c. further explain the roles of various cellular components of yeast cells

- d. identify the genes in yeast cells and mammalian nerve cells that work to reverse the toxic levels of alpha-synuclein
- e. clarify the relevance of genetic testing in yeast cells to the search for a new treatment for Parkinson's disease
- 3. It can be inferred from the passage that current treatments of Parkinson's Disease
- a. repair damaged cells by replenishing dopamine levels in the brain
- b. are ineffective in their treatment of Parkinson's symptoms, such as tremors
- c. were developed without a complete understanding of dopamine-producing neurons
- d. will inevitably be replaced by new drug therapy to suppress alpha-synuclein toxicity
- e. were not developed through research on yeast cells

Source: ManhattanPrep

A game of strategy, as currently conceived in game theory, is a situation in which two or more "players" make choices among available alternatives (moves). The totality of choices determines the outcomes of the game, and it is assumed that the rank order of preferences for the outcomes is different for different players. Thus the "interests" of the players are generally in conflict. Whether these interests are diametrically opposed or only partially opposed depends on the type of game.

Psychologically, most interesting situations arise when the interests of the players are partly coincident and partly opposed, because then one can postulate not only a conflict among the players but also inner conflicts within the players. Each is torn between a tendency to cooperate, so as to promote the common interests, and a tendency to compete, so as to enhance his own individual interests.

Internal conflicts are always psychologically interesting. What we vaguely call "interesting" psychology is in very great measure the psychology of inner conflict. Inner conflict is also held to be an important component of serious literature as distinguished from less serious genres. The classical tragedy, as well as the serious novel reveals the inner conflict of central figures. The superficial adventure story on the other hand, depicts only external conflict; that is, the threats to the person with whom the reader (or viewer) identifies stem in these stories exclusively from external obstacles and from the adversaries who create them. On the most primitive level this sort of external conflict is psychologically empty. In the fisticuffs between the protagonists of good and evil, no psychological problems are involved or, at any rate, none are depicted in juvenile representations of conflict.

The detective story, the "adult" analogue of a juvenile adventure tale, has at times been described as a glorification of intellectualized conflict. However, a great deal of the interest in the plots of these stories is sustained by withholding the unraveling of a solution to a problem. The effort of solving the problem is in itself not a conflict if the adversary (the unknown criminal) remains passive, like Nature, whose secrets the scientist supposedly unravels by deduction. If the adversary actively puts obstacles in the detective's path toward the solution, there is genuine conflict. But the conflict is psychologically interesting only to the extent that it contains irrational components such as a tactical error on the criminal's part or the detective's insight into some psychological quirk of the criminal or something of this sort. Conflict conducted in a perfectly rational manner is psychologically no more interesting than a standard Western. For example, Tic-tac-toe, played perfectly by both players, is completely devoid of psychological interest. Chess may be psychologically interesting but only to the extent that it is played not quite rationally. Played completely rationally, chess would not be different from Tic-tac-toe.

In short, a pure conflict of interest (what is called a zero-sum game) although it offers a wealth of interesting conceptual problems, is not interesting psychologically, except to the extent that its conduct departs from rational norms.

- 1. According to the passage, internal conflicts are psychologically more interesting than external conflicts because
- (1) internal conflicts, rather than external conflicts, form an important component of serious

literature as distinguished from less serious genres.

- (2) only juveniles or very few "adults" actually experience external conflict, while internal conflict is more widely prevalent in society.
- (3) in situations of internal conflict, individuals experience a dilemma in resolving their own preferences for different outcomes.
- (4) there are no threats to the reader (or viewer) in case of external conflicts.
- 2. Which, according to the author, would qualify as interesting psychology?
- (1) A statistician's dilemma over choosing the best method to solve an optimization problem.
- (2) A chess player's predicament over adopting a defensive strategy against an aggressive opponent.
- (3) A mountaineer's choice of the best path to Mt. Everest from the base camp.
- (4) A finance manager's quandary over the best way of raising money from the market.
- 3. According to the passage, which of the following options about the application of game theory to a conflict-of-interest situation is true?
- (1) Assuming that the rank order of preferences for options is different for different players.
- (2) Accepting that the interests of different players are often in conflict.
- (3) Not assuming that the interests are in complete disagreement.
- (4) All of the above.
- 4. The problem solving process of a scientist is different from that of a detective because
- (1) scientists study inanimate objects, while detectives deal with living criminals or law offenders.
- (2) scientists study known objects, while detectives have to deal with unknown criminals or law offenders.
- (3) scientists study phenomena that are not actively altered, while detectives deal with phenomena that have been deliberately influenced to mislead.
- (4) scientists study psychologically interesting phenomena, while detectives deal with "adult" analogues of juvenile adventure tales.

Source: IIFT 2012

The first thing I learned at school was that some people are idiots; the second thing I learned was that some are even worse. I was still too young to grasp that people of breeding were meant to affect innocence of this fundamental distinction. and that the same courtesy applied to any disparity that might rise out of religious. racial, sexual class, financial and (latterly) cultural difference. So in my innocence I would raise my hand every time the teacher asked a question, just to make it clear I knew the answer.

After some months of this, the teacher and my classmates must have been vaguely aware I was a good student, but still I felt the compulsion to raise my hand. By now the teacher seldom called on me, preferring to give other children a chance to speak, too. Still my hand shot up without my even willing it, whether or not I knew the answer. If I was putting on airs, like someone who even in ordinary clothes, adds a gaudy piece of jewellery, it's also true that I admired my teacher and was desperate to cooperate.

Another thing I was happy to discover at school was the teacher's 'authority'. At home, in the crowded and disordered Pamuk Apartments, things were never so clear; at our crowded table, everyone talked at the same time. Our domestic routines, our love for one another, our conversations, meals and radio hours; these 'were never debated — they just happened. My father held little obvious authority at home, and he was often absent. He never scolded my brother or me, never even raised his eyebrows in disapproval. In later years, he would introduce us to his friends as 'my two younger brothers', and we felt he had earned the right to say so. My mother was the only authority I recognised at home. But she was hardly a distant or alien tyrant: her power came from my desire to be loved by her. And so - I was fascinated by the power my teacher wielded over her twenty-five pupils.

Perhaps I identified my teacher with my mother, for I had an insatiable desire for her approval. 'Join your arms together like this and sit down quietly,' she would say, and I would press my arms against my chest and sit patiently all through the lesson. But gradually the novelty wore off; soon it was no longer exciting to have every answer or solve an arithmetic problem ahead of everyone else or earn the highest mark; time began to flow with painful slowness, or stop flowing altogether.

Turning away from the fat, half-witted girl who was writing on the blackboard, who gave everyone — teachers, school caretakers and her classmates — the same vapid, trusting smile, my eyes would float to the window, to the upper branches of the chestnut tree that I could just see rising up between the apartment buildings. A crow would land on a branch. Because I was viewing it from below, I could see the little cloud floating behind it — as it moved, it kept changing shape: first a fox's nose, then a head, then a dog. I didn't want it to stop looking like a dog, but as it continued its journey it changed into one of the fourlegged silver sugar bowls from my grandmother??s always—locked display case, and I??d long to be at home. Once I??d conjured up the reassuring silence of the shadows of home, my father would step out from them, as if from a dream, and off we??d go on a family outing to the Bosphorus. Just then, a window in the apartment building opposite would, open, a maid would shake her duster and gaze absentmindedly at the street that I could not see from where I was sitting.

What was going down there? I'd wonder. I'd hear a horse cart rolling over the cobblestones, and a rasping voice would cry out 'Eskiciiiiii! The maid would watch the junk dealer make his way down the street before pulling her head back inside and shutting the window behind her, but then, right next to that window, moving as fast as the first cloud but going in the opposite direction, I'd see a second cloud. But now my attention was called back to the classroom, and seeing all the other raised hands, I would eagerly raise my hand too: long before I worked out from my classmates' responses what the teacher had asked us, I was foggily confident I had the answer.

It was exciting, though sometimes painful, to get to know my classmates as individuals, and to find out how different they were from me. There was that sad boy who, whenever he was asked to read out loud in Turkish class, would skip every other line; the poor boy's mistake was as involuntary as the laughter it would elicit from the class. In first grade, there was a girl who kept her red hair in a ponytail, who sat next to me for a time. Although her bag was a slovenly jumble of half-eaten apples, simits, sesame seeds, pencils and hair bands, it always smelled of dried lavender around her, and that attracted me; I was also drawn to her for speaking so openly about the little taboos of daily life, and if I didn't see her at the weekend, I missed her, though there was another girl so tiny and delicate that I was utterly entranced by her as well. Why did that boy keep on telling lies even knowing no one was going to believe him'? How could that girl be so indiscreet about the goings-on in her house? And could this other girl be shedding real tears as she read that poem about Ataturk?'

Just as I was in the habit of looking at the fronts of cars and seeing noses, so too did I like to scrutinise my classmates, looking for the creatures they resembled. The boy with the pointed nose was a fox and the big one next to him was, as everyone said, a bear, and the one with the thick hair was a hedgehog... I remember a Jewish girl called Mari telling us all about Passover - there were days when no one in her grandmother's house was allowed to touch the light switches. Another girl reported that one evening, when she was in her room, she turned around so fast she glimpsed the shadow of an angel — a fearsome story that stayed with me. There was a girl with very long legs who wore very long socks and always looked as if she was about to cry; her father was a government minister and when he died in a plane crash from which Prime Minister Menederes emerged without a scratch, I was sure she'd been crying because she had known in advance what was going to happen. Lots of children had problems with their teeth; a few wore braces. On the top floor of the building that housed the lycée dormitory and the sports hall, just next to the infirmary, there was rumoured to be a dentist, and when teachers got angry they would often threaten to send naughty children there. For lesser infractions pupils were made to stand in the corner between the blackboard and the door with their backs to the class, sometimes one leg, but because we were all so curious to see how long someone could stand on one leg, the lessons suffered, so this particular punishment was rare.

- 1. The synonym for the term 'vapid' is
- A. Lively
- B. Original
- C. Lacklustre
- D. Spicy

- 2. Who is the least talked about character in this passage?
- A. Mother
- **B.** Classmates
- C. Grandmother
- D. Teacher
- 3. Which among the following cannot be concluded from this passage?
- A. The author was a good student but sometimes felt bored in class
- B. The author got along fairly well with his classmates
- C. The author came from a very authoritarian home environment
- D. The author had an imaginative mind
- 4. What did the teachers do when they get angry?
- A. Sent the students to the infirmary
- B. Denied them a chance to answer questions
- C. Made them' join their hands together and sit quietly
- D. Threatened to send them to the dentist.

Source: Manhattan Prep

The golden toad of Costa Rica, whose beauty and rarity inspired an unusual degree of human interest from a public generally unconcerned about amphibians, may nevertheless have been driven to extinction by human activity. In the United States, a public relations campaign raised money to protect the toad's habitat in Costa Rica, establishing the Monteverde Cloud Forest Preserve in 1972. However, setting aside habitat was not enough to save the species. The toad's demise in the late 1980s was a harbinger of further species extinction in Costa Rica. Since that time, another twenty of the fifty species of frogs and toads known to once inhabit a 30 square kilometer area near Monteverde have disappeared.

Between one third and one half of the world's amphibian species—including frogs, toads, and salamanders—have declined or disappeared. Scientists hypothesize that the more subtle effects of human activities on the world's ecosystems, such as the accretion of pollutants, the decrease in atmospheric ozone, and changing weather patterns due to global warming, are beginning to take their toll. Perhaps amphibians - whose permeable skin makes them unusually sensitive to environmental changes - are the biological harbingers of the natural world, giving humans early notification of the deterioration, if not destruction, of our ecosystem.

- 1.It can be inferred from the discussion of amphibians that
- A. only thirty species of frogs and toads remain in Costa Rica
- B. relatively few non-amphibious animals have permeable skin
- C. most have either already become extinct or are in danger of extinction
- D. humans do not usually take signals of environmental deterioration seriously
- E. the extinction of so many amphibian species supports the contention that humans are responsible for the situation
- 2. The passage implies that
- A. the Monteverde area may be home to toad or frog species that have not yet been noted by researchers
- B. the Monteverde Cloud Forest Preserve was not large enough to protect the golden toad
- C. only Costa Rican amphibians living near Monteverde have disappeared since the 1980s
- D. if amphibians did not have permeable skin, then they could not act as biological harbingers
- E. more than one third of the world's amphibian species have become extinct
- 3. The primary purpose of the passage is to
- A. discuss the disappearance of a particular species
- B. explain why a certain cause is to blame for a global phenomenon
- C. argue that a class of animals should be protected from decline or extinction
- D. describe the global decline of a class of animals and consider possible causes
- E. demonstrate the reasons for the demise of a particular species

For the poet Phillis Wheatley, who was brought to colonial New England as a slave in 1761, the formal literary code of eighteenth-century English was thrice removed: by the initial barrier of the unfamiliar English language, by the discrepancy between spoken and literary forms of English, and by the African tradition of oral rather than written verbal art. Wheatley transcended these barriers—she learned the English language and English literary forms so quickly and well that she was composing good poetry in English within a few years of her arrival in New England.

Wheatley's experience exemplifies the meeting of oral and written literary cultures. The aesthetic principles of the African oral tradition were preserved in America by folk artists in work songs, dancing, field hollers, religious music, the use of the drum, and, after the drum was forbidden, in the perpetuation of drum effects in song. African languages and the functions of language in African societies not only contributed to the emergence of a distinctive Black English but also exerted demonstrable effects on the manner in which other Americans spoke English. Given her African heritage and her facility with English and the conventions of English poetry, Wheatley's work had the potential to apply the ideas of a written literature to an oral literary tradition in the creation of an African American literary language.

But this was a potential that her poetry unfortunately did not exploit. The standards of eighteenth-century English poetry, which itself reflected little of the American language, led Wheatley to develop a notion of poetry as a closed system, derived from imitation of earlier written works. No place existed for the rough-and-ready Americanized English she heard in the streets, for the English spoken by Black people, or for Africanisms. The conventions of eighteenth-century neoclassical poetry ruled out casual talk; her voice and feelings had to be generalized according to rules of poetic diction and characterization; the particulars of her African past, if they were to be dealt with at all, had to be subordinated to the reigning conventions. African poetry did not count as poetry in her new situation, and African aesthetic canons were irrelevant to the new context because no linguistic or social framework existed to reinforce them. Wheatley adopted a foreign language and a foreign literary tradition; they were not extensions of her past experience, but replacements.

Thus limited by the eighteenth-century English literary code, Wheatley's poetry contributed little to the development of a distinctive African American literary language. Yet by the standards of the literary conventions in which she chose to work, Wheatley's poetry is undeniably accomplished, and she is justly celebrated as the first Black American poet.

- 1. Which one of the following best expresses the main idea of the passage?
- (A) Folk artists employed more principles of African oral tradition in their works than did Phillis Wheatley in her poetry.
- (B) Although Phillis Wheatley had to overcome significant barriers in learning English, she mastered the literary conventions of eighteenth-century English as well as African aesthetic canons.
- (C) Phillis Wheatley's poetry did not fulfill the potential inherent in her experience but did represent a significant accomplishment.

- (D) The evolution of a distinctive African American literary language can be traced from the creations of African American folk artists to the poetry of Phillis Wheatley.
- (E) Phillis Wheatley joined with African American folk artists in preserving the principles of the African oral tradition.
- 2. The approach to poetry taken by a modern-day Italian immigrant in America would be most analogous to Phillis Wheatley's approach, as it is described in the passage, if the immigrant
- (A) translated Italian literary forms into the American idiom
- (B) combined Italian and American literary traditions into a new form of poetic expression
- (C) contributed to the development of a distinctive Italian American literary style
- (D) defined artistic expression in terms of eighteenth-century Italian poetic conventions
- (E) adopted the language and forms of modern American poetry
- 3. According to the passage, African languages had a notable influence on
- (A) the religious music of colonists in New England
- (B) the folk art of colonists in New England
- (C) formal written English
- (D) American speech patterns
- (E) eighteenth-century aesthetic principles
- 4. By a "closed system" of poetry, the author most probably means poetry that
- (A) cannot be written by those who are not raised knowing its conventions
- (B) has little influence on the way language is actually spoken
- (C) substitutes its own conventions for the aesthetic principles of the past
- (D) does not admit the use of street language and casual talk
- (E) is ultimately rejected because its conventions leave little room for further development
- 5. According to the passage, the standards of eighteenth-century English poetry permitted Wheatley to include which one of the following in her poetry?
- (A) generalized feelings
- (B) Americanized English
- (C) themes from folk art
- (D) casual talk
- (E) Black speech
- 6. Which one of the following, if true, would most weaken the author's argument concerning the role that Wheatley played in the evolution of an African American literary language?
- (A) Wheatley's poetry was admired in England for its faithfulness to the conventions of neoclassical poetry.
- (B) Wheatley compiled a history in English of her family's experiences in Africa and America.
- (C) The language barriers that Wheatley overcame were eventually transcended by all who were brought from Africa as slaves.
- (D) Several modern African American poets acknowledge the importance of Wheatley's poetry to American literature.

- (E) Scholars trace themes and expressions in African American poetry back to the poetry of Wheatley.
- 7. It can be inferred that the author of the passage would most probably have praised Phillis Wheatley's poetry more if it had
- (A) affected the manner in which slaves and freed Black people spoke English
- (B) defined African American artistic expression in terms of earlier works
- (C) adopted the standards of eighteenth-century English poetry
- (D) combined elements of the English literary tradition with those of the African oral tradition
- (E) focused on the barriers that written English literary forms presented to Black artists
- 8. Which one of the following most accurately characterizes the author's attitude with respect to Phillis Wheatley's literary accomplishments?
- (A) enthusiastic advocacy
- (B) qualified admiration
- (C) dispassionate impartiality
- (D) detached ambivalence
- (E) perfunctory dismissal

One scientific discipline, during its early stages of development, is often related to another as an antithesis to its thesis. The thesis discipline tends to concern itself with discovery and classification of phenomena, to offer holistic explanations emphasizing pattern and form, and to use existing theory to explain the widest possible range of phenomena. The paired or antidiscipline, on the other hand, can be characterized by a more focused approach, concentrating on the units of construction, and by a belief that the discipline can be reformulated in terms of the issues and explanations of the antidiscipline.

The relationship of cytology (cell biology) to biochemistry in the late nineteenth century, when both disciplines were growing at a rapid pace, exemplifies such a pattern. Researchers in cell biology found mounting evidence of an intricate cell architecture. They also deduced the mysterious choreography of the chromosomes during cell division. Many biochemists, on the other hand, remained skeptical of the idea that so much structure existed, arguing that the chemical reactions that occur in cytological preparations might create the appearance of such structures. Also, they stood apart from the debate then raging over whether protoplasm, the complex of living material within a cell, is homogeneous, network-like, granular, or foamlike. Their interest lay in the more "fundamental" issues of the chemical nature of protoplasm, especially the newly formulated enzyme theory of life.

In general, biochemists judged to be too ignorant of chemistry to grasp the basic processes, whereas cytologists considered the methods of biochemists inadequate to characterize the structures of the living cell. The renewal of Mendelian genetics and, later, progress in chromosome mapping did little at first to effect a synthesis.

Both sides were essentially correct. Biochemistry has more than justified its extravagant early claims by explaining so much of the cellular machinery. But in achieving this feat (mostly since 1950) it has been partially transformed into the new discipline of molecular biology — biochemistry that deals with spatial arrangements and movements of large molecules. At the same time cytology has metamorphosed into modern cellular biology. Aided by electron microscopy, it has become more similar in language and outlook to molecular biology.

The interaction of a discipline and its antidiscipline has moved both sciences toward a synthesis, namely molecular genetics.

This interaction between paired disciplines can have important results. In the case of late nineteenth century cell research, progress was fueled by competition among the various attitudes and issues derived from cell biology and biochemistry. Joseph Fruton, a biochemist, has suggested that such competition and the resulting tensions among researchers are a principal source of vitality and "are likely to lead to unexpected and exciting novelties in the future, as they have in the past."

- 1. Which one of the following best states the central idea of the passage?
- (A) Antithetical scientific disciplines can both stimulate and hinder one another's research in complex ways.
- (B) Antithetical scientific disciplines often interact with one another in ways that can be highly useful.
- (C) As disciplines such as cytology and biochemistry advance, their interaction necessarily

leads to a synthesis of their approaches.

- (D) Cell research in the late nineteenth century was plagued by disagreements between cytologists and biochemists.
- (E) In the late nineteenth century, cytologists and biochemists made many valuable discoveries that advanced scientific understanding of the cell.
- 2. The passage states that in the late nineteenth century cytologists deduced the
- (A) maps of chromosomes
- (B) chemical nature of protoplasm
- (C) spatial relationship of molecules within the cell
- (D) role of enzymes in biological processes
- (E) sequence of the movement of chromosomes during cell division
- 3. It can be inferred from the passage that in the late nineteenth century the debate over the structural nature of protoplasm was most likely carried on
- (A) among cytologists
- (B) among biochemists
- (C) between cytologists and biochemists
- (D) between cytologists and geneticists
- (E) between biochemists and geneticists
- 4. According to the passage, cytologists in the late nineteenth century were critical of the cell research of biochemists because cytologists believed that
- (A) the methods of biochemistry were inadequate to account for all of the chemical reactions that occurred in cytological preparations
- (B) the methods of biochemistry could not adequately discover and explain the structures of living cells
- (C) biochemists were not interested in the nature of protoplasm
- (D) biochemists were not interested in cell division
- (E) biochemists were too ignorant of cytology to understand the basic processes of the cell
- 5. The author quotes Fruton primarily in order to
- (A) restate the author's own conclusions
- (B) provide new evidence about the relationship of cytology to biochemistry
- (C) summarize the position of the biochemists described in the passage
- (D) illustrate the difficulties encountered in the synthesis of disciplines
- (E) emphasize the ascendancy of the theories of biochemists over those of cytologists
- 6. Which one of the following inferences about when the enzyme theory of life was formulated can be drawn from the passage?
- (A) The theory was formulated before the appearance of molecular biology.
- (B) The theory was formulated before the initial discovery of cell architecture.
- (C) The theory was formulated after the completion of chromosome mapping.
- (D) The theory was formulated after a synthesis of the ideas of cytologists and biochemists had occurred.

- (E) The theory was formulated at the same time as the beginning of the debate over the nature of protoplasm.
- 7. Which one of the following statements about cells is most compatible with the views of late nineteenth century biochemists as those views are described in the passage?
- (A) The secret of cell function resides in the structure of the cell.
- (B) Only by discovering the chemical composition of protoplasm can the processes of the cell be understood.
- (C) Scientific knowledge about the chemical composition of the cell can help to explain behavioral patterns in organisms.
- (D) The most important issue to be resolved with regard to the cell is determining the physical characteristics of protoplasm.
- (E) The methods of chemistry must be supplemented before a full account of the cell's structures can be made.
- 8. Which one of the following best describes the organization of the material presented in the passage?
- (A) An account of a process is given, and then the reason for its occurrence is stated.
- (B) A set of examples is provided, and then a conclusion is drawn from them.
- (C) A general proposition is stated, and then an example is given.
- (D) A statement of principles is made, and then a rationale for them is debated.
- (E) A problem is analyzed, and then a possible solution is discussed.

There are two major systems of criminal procedure in the modern world — the adversarial and the inquisitorial. Both systems were historically preceded by the system of private vengeance in which the victim of a crime fashioned a remedy and administered it privately, either personally or through an agent.

The modern adversarial system is only one historical step removed from the private vengeance system and still retains some of its characteristic features. For example, even though the right to initiate legal action against a criminal has now been extended to all members of society (as represented by the office of the public prosecutor), and even though the police department has effectively assumed the pretrial investigative functions on behalf of the prosecution, the adversarial system still leaves the defendant to conduct his or her own pretrial investigation. The trial is viewed as a forensic duel between two adversaries, presided over by a judge who, at the start, has no knowledge of the investigative background of the case. In the final analysis the adversarial system of criminal procedure symbolizes and regularizes punitive combat.

By contrast, the inquisitorial system begins historically where the adversarial system stopped its development. It is two historical steps removed from the system of private vengeance. From the standpoint of legal anthropology, then, it is historically superior to the adversarial system. Under the inquisitorial system, the public prosecutor has the duty to investigate not just on behalf of society but also on behalf of the defendant. Additionally, the public prosecutor has the duty to present the court not only evidence that would convict the defendant, but also evidence that could prove the defendant's innocence. The system mandates that both parties permit full pretrial discovery of the evidence in their possession. Finally, an aspect of the system that makes the trial less like a duel between two adversarial parties is that the inquisitorial system mandates that the judge take an active part in the conduct of the trial, with a role that is both directive and protective.

Fact-finding is at the heart of the inquisitorial system. This system operates on the philosophical premise that in a criminal action the crucial factor is the body of facts, not the legal rule (in contrast to the adversarial system), and the goal of the entire procedure is to attempt to recreate, in the mind of the court, the commission of the alleged crime.

Because of the inquisitorial system's thoroughness in conducting its pretrial investigation, it can be concluded that, if given the choice, a defendant who is innocent would prefer to be tried under the inquisitorial system, whereas a defendant who is guilty would prefer to be tried under the adversarial system.

- 1. It can be inferred from the passage that the crucial factor in a trial under the adversarial system is
- (A) rules of legality
- (B) dramatic reenactment of the crime
- (C) the search for relevant facts
- (D) the victim's personal pursuit of revenge
- (E) police testimony about the crime

- 2. The author sees the judge's primary role in a trial under the inquisitorial system as that of
- (A) passive observer
- (B) biased referee
- (C) uninvolved administrator
- (D) aggressive investigator
- (E) involved manager
- 3. According to the passage, a central distinction between the system of private vengeance and the two modern criminal procedure systems was the shift in responsibility for initiating legal action against a criminal from the
- (A) defendant to the courts
- (B) victim to society
- (C) defendant to the prosecutor
- (D) courts to a law enforcement agency
- (E) victim to the judge
- 4. All of the following are characteristics of the inquisitorial system that the author cites EXCEPT:
- (A) It is based on cooperation rather than conflict.
- (B) It encourages full disclosure of evidence.
- (C) It requires that the judge play an active role in the conduct of the trial.
- (D) It places the defendant in charge of his or her defense.
- (E) It favors the innocent.
- 5. The author's attitude toward the inquisitorial system can best be described as
- (A) doubtful that its judges can be both directive and protective
- (B) satisfied that it has potential for uncovering the relevant facts in a case
- (C) optimistic that it will replace the adversarial system
- (D) wary about its down playing of legal rules
- (E) critical of its close relationship with the private vengeance system

Outside the medical profession, there are various efforts to cut medicine down to size: not only widespread malpractice litigation and massive governmental regulation, but also attempts by consumer groups and others to redefine medicine as a trade rather than as a profession, and the physician as merely a technician for hire under contract. Why should physicians (or indeed all sensible people) resist such efforts to give the practice of medicine a new meaning? We can gain some illumination from etymology. "Trade," from Germanic and Anglo-Saxon roots meaning "a course or pathway," has come to mean derivatively a habitual occupation and has been related to certain skills and crafts. On the other hand, while "profession" today also entails a habit of work, the word "profession" itself traces to an act of self-conscious and public—even confessional—speech. "To profess" preserves the meaning of its Latin source, "to declare publicly; to announce, affirm, avow." A profession is an activity or occupation to which its practitioner publicly professes, that is, confesses, devotion. But public announcement seems insufficient; publicly declaring devotion to plumbing or auto repair would not turn these trades into professions.

Some believe that learning and knowledge are the diagnostic signs of a profession. For reasons probably linked to the medieval university, the term "profession" has been applied to the so-called learned professions—medicine, law, and theology—the practices of which are founded upon inquiry and knowledge rather than mere "know-how." Yet it is not only the pursuit and acquisition of knowledge that makes one a professional. The knowledge involved makes the profession one of the learned variety, but its professional quality is rooted in something else.

Some mistakenly seek to locate that something else in the prestige and honor accorded professionals by society, evidenced in their special titles and the special deference and privileges they receive. But externalities do not constitute medicine a profession. Physicians are not professionals because they are honored; rather, they are honored because of their profession. Their titles and the respect they are shown superficially signify and acknowledge something deeper, that physicians are persons of the professional sort, knowingly and freely devoting themselves to a way of life worthy of such devotion. Just as lawyers devote themselves to rectifying injustices, looking up to what is lawful and right; just as teachers devote themselves to the education of the young, looking up to truth and wisdom; so physicians heal the sick, looking up to health and wholesomeness. Being a professional is thus rooted in our moral nature and in that which warrants and impels making a public confession to a way of life.

Professing oneself a professional is an ethical act because it is not a silent and private act, but an articulated and public one; because it promises continuing devotion to a way of life, not merely announces a present preference or a way to a livelihood; because it is an activity in service to some high good that insists on devotion; because it is difficult and demanding. A profession engages one's character and heart, not merely one's mind and hands.

1. According to the author, which one of the following is required in order that one be a professional?

- (A) significant prestige and a title
- (B) "know-how" in a particular field
- (C) a long and difficult educational endeavor
- (D) a commitment to political justice
- (E) a public confession of devotion to a way of life
- 2. Which one of the following best expresses the main point made by the author in the passage?
- (A) Medicine is defined as a profession because of the etymology of the word "profession."
- (B) It is a mistake to pay special honor to the knowledge and skills of physicians.
- (C) The work of physicians is under attack only because it is widely misunderstood.
- (D) The correct reason that physicians are professionals is that their work involves public commitment to a high good.
- (E) Physicians have been encouraged to think of themselves as technicians and need to reorient themselves toward ethical concerns.
- 3. The question posed by the author when she says "Why should physicians ... a new meaning?" introduces which one of the following?
- (A) the author's belief that it is futile to resist the trend toward defining the physician's work as a trade
- (B) the author's dislike of governmental regulation and consumer advocacy
- (C) the author's inquiry into the nature of the practice of medicine
- (D) the author's suggestions for rallying sensible people to a concentrated defense of physicians
- (E) the author's fascination with the origins of words
- 4. In the passage, the author mentions or suggests all of the following EXCEPT
- (A) how society generally treats physicians
- (B) that the practice of medicine is analogous to teaching
- (C) that being a professional is in part a public act
- (D) the specific knowledge on which trades are based
- (E) how a livelihood is different from a profession
- 5. The author's attitude towards professionals is best described as
- (A) eager that the work of one group of professionals, physicians, be viewed from a new perspective
- (B) sympathetic toward professionals who have become demoralized by public opinion
- (C) surprised that professionals have been balked by governmental regulations and threats of litigation
- (D) dismayed that most professionals have come to be considered technicians
- (E) certain that professionals confess a commitment to ethical ideals
- 6. Based on the information in the passage, it can be inferred that which one of the following would most logically begin a paragraph immediately following the passage?
- (A) A skilled handicraft is a manual art acquired by habituation that enables tradespeople to tread regularly and reliably along the same path.

- (B) Critics might argue that being a doctor, for example, requires no ethical or public act; thus medicine, as such, is morally neutral, does not bind character, and can be used for good or ill.
- (C) Sometimes the pursuit of personal health competes with the pursuit of other goods, and it has always been the task of the community to order and define the competing ends.
- (D) Not least among the myriad confusions and uncertainties of our time are those attending efforts to discern and articulate the essential characteristics of the medical profession.
- (E) When, in contrast, we come to physicians of the whole body, we come tacitly acknowledging the meaning of illness and its potential threat to all that we hold dear.

Historians generally agree that, of the great modern innovations, the railroad had the most far-reaching impact on major events in the United States in the nineteenth and early twentieth centuries, particularly on the Industrial Revolution. There is, however, considerable disagreement among cultural historians regarding public attitudes toward the railroad, both at its inception in the 1830s and during the half century between 1880 and 1930, when the national rail system was completed and reached the zenith of its popularity in the United States. In a recent book, John Stilgoe has addressed this issue by arguing that the "romanticera distrust" of the railroad that he claims was present during the 1830s vanished in the decades after 1880. But the argument he provides in support of this position is unconvincing.

What Stilgoe calls "romantic-era distrust" was in fact the reaction of a minority of writers, artists, and intellectuals who distrusted the railroad not so much for what it was as for what it signified. Thoreau and Hawthorne appreciated, even admired, an improved means of moving things and people from one place to another. What these writers and others were concerned about was not the new machinery as such, but the new kind of economy, social order, and culture that it prefigured. In addition, Stilgoe is wrong to imply that the critical attitude of these writers was typical of the period; their distrust was largely a reaction against the prevailing attitude in the 1830s that the railroad was an unqualified improvement.

Stilgoe's assertion that the ambivalence toward the railroad exhibited by writers like Hawthorne and Thoreau disappeared after the 1880s is also misleading. In support of this thesis, Stilgoe has unearthed an impressive volume of material, the work of hitherto unknown illustrators, journalists, and novelists, all devotees of the railroad; but it is not clear what this new material proves except perhaps that the works of popular culture greatly expanded at the time. The volume of the material proves nothing if Stilgoe's point is that the earlier distrust of a minority of intellectuals did not endure beyond the 1880s, and, oddly, much of Stilgoe's other evidence indicates that it did. When he glances at the treatment of railroads by writers like Henry James, Sinclair Lewis, or F. Scott Fitzgerald, what comes through in spite of Stilgoe's analysis is remarkably like Thoreau's feeling of contrariety and ambivalence. (Had he looked at the work of Frank Norris, Eugene O'Neill, or Henry Adams, Stilgoe's case would have been much stronger.) The point is that the sharp contrast between the enthusiastic supporters of the railroad in the 1830s and the minority of intellectual dissenters during that period extended into the 1880s and beyond.

- 1. The passage provides information to answer all of the following questions EXCEPT:
- (A) During what period did the railroad reach the zenith of its popularity in the United States?
- (B) How extensive was the impact of the railroad on the Industrial Revolution in the United States, relative to that of other modern innovations?
- (C) Who are some of the writers of the 1830s who expressed ambivalence toward the railroad?
- (D) In what way could Stilgoe have strengthened his argument regarding intellectuals' attitudes toward the railroad in the years after the 1880s?
- (E) What arguments did the writers after the 1880s, as cited by Stilgoe, offer to justify their support for the railroad?

- 2. According to the author of the passage, Stilgoe uses the phrase "romantic-era distrust" to imply that the view he is referring to was
- (A) the attitude of a minority of intellectuals toward technological innovation that began after 1830
- (B) a commonly held attitude toward the railroad during the 1830s
- (C) an ambivalent view of the railroad expressed by many poets and novelists between 1880 and 1930
- (D) a critique of social and economic developments during the 1830s by a minority of intellectuals
- (E) an attitude toward the railroad that was disseminated by works of popular culture after 1880
- 3. According to the author, the attitude toward the railroad that was reflected in writings of Henry James, Sinclair Lewis, and F. Scott Fitzgerald was
- (A) influenced by the writings of Frank Norris, Eugene O'Neill, and Henry Adams
- (B) similar to that of the minority of writers who had expressed ambivalence toward the railroad prior to the 1880s
- (C) consistent with the public attitudes toward the railroad that were reflected in works of popular culture after the 1880s
- (D) largely a reaction to the works of writers who had been severely critical of the railroad in the 1830s
- (E) consistent with the prevailing attitude toward the railroad during the 1830s
- 4. It can be inferred from the passage that the author uses the phrase "works of popular culture" primarily to refer to the
- (A) work of a large group of writers that was published between 1880 and 1930 and that in Stilgoe's view was highly critical of the railroad
- (B) work of writers who were heavily influenced by Hawthorne and Thoreau
- (C) large volume of writing produced by Henry Adams, Sinclair Lewis, and Eugene O'Neill
- (D) work of journalists, novelists, and illustrators who were responsible for creating enthusiasm for the railroad during the 1830s
- (E) work of journalists, novelists, and illustrators that was published after 1880 and that has received little attention from scholars other than Stilgoe
- 5. Which one of the following can be inferred from the passage regarding the work of Frank Norris, Eugene O'Neill, and Henry Adams?
- (A) Their work never achieved broad popular appeal.
- (B) Their ideas were disseminated to a large audience by the popular culture of the early 1800s.
- (C) Their work expressed a more positive attitude toward the railroad than did that of Henry James, Sinclair Lewis, and F. Scott Fitzgerald.
- (D) Although they were primarily novelists, some of their work could be classified as journalism.
- (E) Although they were influenced by Thoreau, their attitude toward the railroad was significantly different from his.

- 6. It can be inferred from the passage that Stilgoe would be most likely to agree with which one of the following statements regarding the study of cultural history?
- (A) It is impossible to know exactly what period historians are referring to when they use the term"romantic era."
- (B) The writing of intellectuals often anticipates ideas and movements that are later embraced by popular culture.
- (C) Writers who were not popular in their own time tell us little about the age in which they lived.
- (D) The works of popular culture can serve as a reliable indicator of public attitudes toward modern innovations like the railroad.
- (E) The best source of information concerning the impact of an event as large as the Industrial Revolution is the private letters and journals of individuals.
- 7. The primary purpose of the passage is to
- (A) evaluate one scholar's view of public attitudes toward the railroad in the United States from the early nineteenth to the early twentieth century
- (B) review the treatment of the railroad in American literature of the nineteenth and twentieth centuries
- (C) survey the views of cultural historians regarding the railroad's impact on major events in United States history
- (D) explore the origins of the public support for the railroad that existed after the completion of a national rail system in the United States
- (E) define what historians mean when they refer to the "romantic-era distrust" of the railroad

Three basic adaptive responses — regulatory, acclimatory, and developmental — may occur in organisms as they react to changing environmental conditions. In all three, adjustment of biological features (morphological adjustment) or of their use (functional adjustment) may occur. Regulatory responses involve rapid changes in the organism's use of its physiological apparatus — increasing or decreasing the rates of various processes, for example. Acclimation involves morphological change — thickening of fur or red blood cell proliferation — which alters physiology itself. Such structural changes require more time than regulatory response changes. Regulatory and acclamatory responses are both reversible.

Developmental responses, however, are usually permanent and irreversible; they become fixed in the course of the individual's development in response to environmental conditions at the time the response occurs. One such response occurs in many kinds of water bugs. Most water-bug species inhabiting small lakes and ponds have two generations per year. The first hatches during the spring, reproduces during the summer, then dies. The eggs laid in the summer hatch and develop into adults in late summer. They live over the winter before breeding in early spring. Individuals in the second (overwintering) generation have fully developed wings and leave the water in autumn to overwinter in forests, returning in spring to small bodies of water to lay eggs. Their wings are absolutely necessary for this seasonal dispersal. The summer (early) generation, in contrast, is usually dimorphic – some individuals have normal functional (macropterous) wings; others have much-reduced (micropterous) wings of no use for flight. The summer generation's dimorphism is a compromise strategy, for these individuals usually do not leave the ponds and thus generally have no use for fully developed wings. But small ponds occasionally dry up during the summer, forcing the water bugs to search for new habitats, an eventuality that macropterous individuals are well adapted to meet.

The dimorphism of micropterous and macropterous individuals in the summer generation expresses developmental flexibility; it is not genetically determined. The individual's wing form is environmentally determined by the temperature to which developing eggs are exposed prior to their being laid. Eggs maintained in a warm environment always produce bugs with normal wings, but exposure to cold produces micropterous individuals. Eggs producing the overwintering brood are all formed during the late summer's warm temperatures. Hence, all individuals in the overwintering brood have normal wings. Eggs laid by the overwintering adults in the spring, which develop into the summer generation of adults, are formed in early autumn and early spring. Those eggs formed in autumn are exposed to cold winter temperatures, and thus produce micropterous adults in the summer generation. Those formed during the spring are never exposed to cold temperatures, and thus yield individuals with normal wings. Adult water bugs of the overwintering generation, brought into the laboratory during the cold months and kept warm, produce only macropterous offspring.

- 1. The primary purpose of the passage is to
- (A) illustrate an organism's functional adaptive response to changing environmental conditions
- (B) prove that organisms can exhibit three basic adaptive responses to changing

environmental conditions

- (C) explain the differences in form and function between micropterous and macropterous water bugs and analyze the effect of environmental changes on each
- (D) discuss three different types of adaptive responses and provide an example that explains how one of those types of responses works
- (E) contrast acclimatory responses with developmental responses and suggest an explanation for the evolutionary purposes of these two responses to changing environmental conditions
- 2. The passage supplies information to suggest that which one of the following would happen if a pond inhabited by water bugs were to dry up in June?
- (A) The number of developmental responses among the water-bug population would decrease.
- (B) Both micropterous and macropterous water bugs would show an acclimatory response.
- (C) The generation of water bugs to be hatched during the subsequent spring would contain an unusually large number of macropterous individuals.
- (D) The dimorphism of the summer generation would enable some individuals to survive.
- (E) The dimorphism of the summer generation would be genetically transferred to the next spring generation.
- 3. It can be inferred from the passage that if the wintermonths of a particular year were unusually warm, the
- (A) eggs formed by water bugs in the autumn would probably produce a higher than usual proportion of macropterous individuals
- (B) eggs formed by water bugs in the autumn would probably produce an entire summer generation of water bugs with smaller than normal wings
- (C) eggs of the overwintering generation formed in the autumn would not be affected by this temperature change
- (D) overwintering generation would not leave the ponds for the forest during the winter
- (E) overwintering generation of water bugs would most likely form fewer eggs in the autumn and more in the spring
- 4. According to the passage, the dimorphic wing structure of the summer generation of water bugs occurs because
- (A) the overwintering generation forms two sets of eggs, one exposed to the colder temperatures of winter and one exposed only to the warmer temperatures of spring
- (B) the eggs that produce micropterous and macropterous adults are morphologically different
- (C) water bugs respond to seasonal changes by making an acclimatory functional adjustment in the wings
- (D) water bugs hatching in the spring live out their life spans in ponds and never need to fly
- (E) the overwintering generation, which produces eggs developing into the dimorphic generation, spends the winter in the forest and the spring in small ponds
- 5. It can be inferred from the passage that which one of the following is an example of a regulatory response?

- (A) thickening of the plumage of some birds in the autumn
- (B) increase in pulse rate during vigorous exercise
- (C) gradual darkening of the skin after exposure to sunlight
- (D) gradual enlargement of muscles as a result of weight lifting
- (E) development of a heavy fat layer in bears before hibernation
- 6. According to the passage, the generation of water bugs hatching during the summer is likely to
- (A) be made up of equal numbers of macropterous and micropterous individuals
- (B) lay its eggs during the winter in order to expose them to cold
- (C) show a marked inability to fly from one pond to another
- (D) exhibit genetically determined differences in wing form from the early spring-hatched generation
- (E) contain a much greater proportion of macropterous water bugs than the early springhatched generation
- 7. The author mentions laboratory experiments with adult water bugs in order to illustrate which one of the following?
- (A) the function of the summer generation's dimorphism
- (B) the irreversibility of most developmental adaptive responses in water bugs
- (C) the effect of temperature on developing water-bug eggs
- (D) the morphological difference between the summer generation and the overwintering generation of water bugs
- (E) the functional adjustment of water bugs in response to seasonal temperature variation
- 8. Which one of the following best describes the organization of the passage?
- (A) Biological phenomena are presented, examples of their occurrence are compared and contrasted, and one particular example is illustrated in detail.
- (B) A description of related biological phenomena is stated, and two of those phenomena are explained in detail with illustrated examples.
- (C) Three related biological phenomena are described, a hypothesis explaining their relationship is presented, and supporting evidence is produced.
- (D) Three complementary biological phenomena are explained, their causes are examined, and one of them is described by contrasting its causes with the other two.
- (E) A new way of describing biological phenomena is suggested, its applications are presented, and one specific example is examined in detail.

Bans on wearing the burqa and other face-covering religious garb (such are under consideration or recently passed in several European countries) fall under a class of restrictions by government on the free choice of individuals over private matters. They thus have the appearance of being illiberal, of disrespecting people's natural rights to manage their own affairs in general, and to follow their own plan of life in particular. In fact, it is possible to justify such a ban in liberal terms. But not just any kind of ban will do.

Political debate about the burqa in the west is dominated by an unfortunate bigotry, a species of moral foolishness antithetical to liberalism. I have heard and read serious arguments for banning the burqa because it causes vitamin D deficiency (lack of sunshine), because people will try to rob banks dressed in burqas, because this is alien to our face-to-face culture, and so on. Such arguments are, respectively, trivial, stupid, and xenophobic (if not racist).

Yet it seems to me that there are in fact plausible liberal arguments for banning the burqa (and various other things, such as addictive drugs), which focus on the harms that the burqa may do to the personal autonomy of particularly vulnerable women and girls. This line of reasoning is of course inconsistent with the libertarian interpretation of liberalism, in terms of the sanctity of individual liberty from the depredations of government restrictions, unless there is evidence that you are using your liberty to harm others in some significant way. The libertarian thus takes Mill's 'harm principle' seriously, if rather narrowly: The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. (Mill, On Liberty)

The narrowness of the libertarian view has two dimensions. First, libertarians presume that people are already and always rational, and thus that their desires and opinions reflect their autonomous will. Yet while this is a good 'respectful' normative stance to take to other people in general, it is false in its particulars. We all know that everyone is less than fully rational at least some of the time, and that some people are dysfunctionally irrational much of the time (such as the severely mentally ill, or drug addicts).

Second, libertarians presume that the only source of oppression that needs to be defended against is the government (vertical power). Yet we all know that the 'horizontal' subjugation of individuals by non-state actors, such as religious communities and families, can also be a significant source of oppression in people's lives. This is made particularly significant by the vulnerability of the development of personal autonomy. While the capability to reason autonomously about one's values and plan of life is essential to the idea of the human person in a teleological sense, this does not mean that it is 'natural' in a biological sense. Autonomy is something that develops from childhood (hence the need for liberal parenting and education) and that may be constrained or deformed (for example, by mental illness or certain forms of parenting and education).

Liberalism as a political doctrine utterly rejects the use of the apparatus of the state to subjugate citizens (the particular concern of libertarians). But it also requires protecting people from subjugation as a result, for example, of their unchosen entanglement in oppressive social relationships. In such cases well-designed government interference can be autonomy enhancing. Turning back to the case of the burqa, feminists have argued that

wearing it makes women socially dysfunctional and undermines their rational autonomy, and that it is even designed to do so. Women who wear the burqa have difficulty functioning adequately in society, since it imposes severe constraints on employment and general social interactions, and even things like eating in public. They are artificially separated - segregated - from other people (even other burqa wearers), and this seems to be exactly how the garment is supposed to work.

- 1. It can be said that the primary purpose of the author of the passage is:
- a. to defend the ban on Burga and how it is actually beneficial
- b. to defend libertarian interpretation of liberalism and how it is required by the system
- c. to highlight the need of libertarian interpretation of liberalism and how it is the need of the hour
- d. to highlight how the straight-jacket libertarian interpretation of liberalism may not work on occasions.
- 2. In the context of the passage, 'xenophobia' means:
- a. a fear reflecting racism
- b. a fear of foreigners or strangers
- c. a fear of non-conventional constituents of a society
- d. all of the above
- 3. The author of the passage uses which of the following to prove his point:
- a. clever didacticism
- b. indirect suppositions
- c. manipulative extrapolations
- d. analytical argumentation
- 4. According to the author of the passage, the libertarian view is essentially:
- I. a one sided interpretation that misses out the role of non-state actors in society.
- II. a viewpoint based on an assumption that may not be true in all situations.
- III. assuming an overarching view of autonomy that may not exist in reality.

Identify the correct statements from above.

- a. I & II
- b. II & III
- c. I & III
- d. All of the above

#RCoftheDay #19 Enjoy!

In the late nineteenth century, the need for women physicians in missionary hospitals in Canton, China, led to expanded opportunities for both Western and Chinese women. The presence of Western women as medical missionaries in China was made possible by certain changes within the Western missionary movement. Beginning in the 1870s, increasingly large numbers of women were forming women's foreign mission societies dedicated to the support of women's foreign mission work. Beyond giving the women who organized the societies a formal activity outside their home circles, these organizations enabled an increasing number of single women missionaries (as opposed to women who were part of the more typical husband-wife missionary teams) to work abroad. Before the formation of these women's organizations, mission funds had been collected by ministers and other church leaders, most of whom emphasized local parish work. What money was spent on foreign missions was under the control of exclusively male foreign mission boards whose members were uniformly uneasy about the new idea of sending single women out into the mission field. But as women's groups began raising impressive amounts of money donated specifically in support of single women missionaries, the home churches bowed both to women's changing roles at home and to increasing numbers of single professional missionary women abroad.

Although the idea of employing a woman physician was a daring one for most Western missionaries in China, the advantages of a well-trained Western woman physician could not be ignored by Canton mission hospital administrators. A woman physician could attend women patients without offending any of the accepted conventions of female modesty. Eventually, some of these women were able to found and head separate women's medical institutions, thereby gaining access to professional responsibilities far beyond those available to them at home.

These developments also led to the attainment of valuable training and status by a significant number of Chinese women. The presence of women physicians in Canton mission hospitals led many Chinese women to avail themselves of Western medicine who might otherwise have failed to do so because of their culture's emphasis on physical modesty. In order to provide enough women physicians for these patients, growing numbers of young Chinese women were given instruction in medicine. This enabled them to earn an independent income, something that was then largely unavailable to women within traditional Chinese society. Many women graduates were eventually able to go out on their own into private practice, freeing themselves of dependence upon the mission community.

The most important result of these opportunities was the establishment of clear evidence of women's abilities and strengths, clear reasons for affording women expanded opportunities, and clear role models for how these abilities and responsibilities might be exercised.

- 1. Which one of the following statements about Western women missionaries working abroad can be inferred from the passage?
- (A) There were very few women involved in foreign missionary work before the 1870s.
- (B) Most women working abroad as missionaries before the 1870s were financed by women's foreign mission societies.
- (C) Most women employed in mission hospitals abroad before the 1870s were trained as

nurses rather than as physicians.

- (D) The majority of professional women missionaries working abroad before the 1870s were located in Canton, China.
- (E) Most women missionaries working abroad before the 1870s were married to men who were also missionaries.
- 2. The author mentions that most foreign mission boards were exclusively male most probably in order to
- (A) contrast foreign mission boards with the boards of secular organizations sending aid to China
- (B) explain the policy of foreign mission boards toward training Chinese women in medicine
- (C) justify the preference of foreign mission boards for professionally qualified missionaries
- (D) help account for the attitude of foreign mission boards towards sending single women missionaries abroad
- (E) differentiate foreign mission boards from boards directing parish work at home
- 3. Which one of the following best describes the organization of the passage?
- (A) A situation is described, conditions that brought about the situation are explained, and results of the situation are enumerated.
- (B) An assertion is made, statements supporting and refuting the assertion are examined, and a conclusion is drawn.
- (C) An obstacle is identified, a variety of possible ways to overcome the obstacle are presented, and an opinion is ventured.
- (D) A predicament is outlined, factors leading up to the predicament are scrutinized, and a tentative resolution of the predicament is recommended.
- (E) A development is analyzed, the drawbacks and advantages accompanying the development are contrasted, and an eventual outcome is predicted.
- 4. Which one of the following, if true, would most undermine the author's analysis of the reason for the increasing number of single women missionaries sent abroad beginning in the 1870s?
- (A) The Western church boards that sent the greatest number of single women missionaries abroad had not received any financial support from women's auxiliary groups.
- (B) The women who were sent abroad as missionary physicians had been raised in families with a strong history of missionary commitment.
- (C) Most of the single missionary women sent abroad were trained as teachers and translators rather than as medical practitioners.
- (D) The Western church boards tended to send abroad single missionary women who had previously been active in local parish work.
- (E) None of the single missionary women who were sent abroad were active members of foreign mission boards.
- 5. According to the passage, which one of the following was a factor in the acceptance of Western women as physicians in mission hospitals in Canton, China?
- (A) the number of male physicians practicing in that region
- (B) the specific women's foreign mission society that supplied the funding

- (C) the specific home parishes from which the missionary women came
- (D) the cultural conventions of the host society
- (E) the relations between the foreign mission boards and the hospital administrators
- 6. The passage suggests which one of the following about medical practices in latenine teenth-century Canton, China?
- (A) There was great suspicion of non-Chinese medical practices.
- (B) Medical care was more often administered in the home than in hospitals.
- (C) It was customary for women physicians to donate a portion of their income for the maintenance of their extended family.
- (D) It was not customary for female patients to be treated by male physicians.
- (E) Young women tended to be afforded as many educational opportunities in medicine as young men were.

If translated into English, most of the ways economists talk among themselves would sound plausible enough to poets, journalists, businesspeople, and other thoughtful though non-economical folk. Like serious talk anywhere — among boat designers and baseball fans, say — the talk is hard to follow when one has not made a habit of listening to it for a while. The culture of the conversation makes the words arcane. But the people in the unfamiliar conversation are not Martians. Underneath it all (the economist's favorite phrase) conversational habits are similar. Economics uses mathematical models and statistical tests and market arguments, all of which look alien to the literary eye. But looked at closely they are not so alien. They may be seen as figures of speech-metaphors, analogies, and appeals to authority.

Figures of speech are not mere frills. They think for us. Someone who thinks of a market as an 'invisible hand' and the organization of work as a 'production function' and his coefficients as being 'significant', as an economist does, is giving the language a lot of responsibility. It seems a good idea to look hard at his language.

If the economic conversation were found to depend a lot on its verbal forms, this would not mean that economics would be not a science, or just a matter of opinion, or some sort of confidence game. Good poets, though not scientists, are serious thinkers about symbols; good historians, though not scientists, are serious thinkers about data. Good scientists also use language. What is more (though it remains to be shown) they use the cunning of language, without particularly meaning to. The language used is a social object, and using language is a social act. It requires cunning (or, if you prefer, consideration), attention to the other minds present when one speaks.

The paying of attention to one's audience is called 'rhetoric', a word that I later exercise hard. One uses rhetoric, of course, to warn of a fire in a theatre or to arouse the xenophobia of the electorate. This sort of yelling is the vulgar meaning of the word, like the president's 'heated rhetoric' in a press conference or the 'mere rhetoric' to which our enemies stoop. Since the Greek flame was lit, though, the word has been used also in a broader and more amiable sense, to mean the study of all the ways of accomplishing things with language: inciting a mob to lynch the accused, to be sure, but also persuading readers of a novel that its characters breathe, or bringing scholars to accept the better argument and reject the worse.

The question is whether the scholar- who usually fancies himself an announcer of 'results' or a stater of 'conclusions' free of rhetoric — speaks rhetorically. Does he try to persuade? It would seem so. Language, I just said, is not a solitary accomplishment. The scholar doesn't speak into the void, or to himself. He speaks to a community of voices. He desires to be heeded, praised, published, imitated, honored, en-Nobeled. These are the desires. The devices of language are the means.

Rhetoric is the proportioning of means to desires in speech. Rhetoric is an economics of language; the study of how scarce means are allocated to the insatiable desires of people to be heard. It seems on the face of it a reasonable hypothesis that economists are like other people in being talkers, who desire listeners whey they go to the library or the laboratory as much as

when they go to the office or the polls. The purpose here is to see if this is true, and to see if it is useful: to study the rhetoric of economic scholarship.

The subject is scholarship. It is not the economy, or the adequacy of economic theory as a description of the economy, or even mainly the economist's role in the economy. The subject is the conversation economists have among themselves, for purposes of persuading each other that the interest elasticity of demand for investment is zero or that the money supply is controlled by the Federal Reserve.

Unfortunately, though, the conclusions are of more than academic interest. The conversations of classicists

or of astronomers rarely affect the lives of other people. Those of economists do so on a large scale. A well

known joke describes a May Day parade through Red Square with the usual mass of soldiers, guided

missiles, rocket launchers. At last come rank upon rank of people in gray business suits. A bystander

asks, "Who are those?" "Aha!" comes the reply," those are economists: you have no idea what damage

they can do!" Their conversations do it.

- 1. According to the passage, which of the following is the best set of reasons for which one needs to 'look hard' at an economist's language?
- A. Economists accomplish a great deal through their language.
- B. Economics is an opinion-based subject.
- C. Economics has a great impact on other's lives.
- D. Economics is damaging.
- (a) A and B (b) C and D (c) A and C (d) B and D
- 2. In the light of the definition of rhetoric given in the passage, which of the following will have the least element of rhetoric?
- (a) An election speech (b) An advertisement jingle
- (c) Dialogues in a play (d) Commands given by army officers
- 3. As used in the passage, which of the following is the closest meaning to the statement 'The cultural of the conversation makes the words arcane'?
- (a) Economists belong to a different culture.
- (b) Only mathematicians can understand economists.
- (c) Economists tend to use terms unfamiliar to the lay person, but depend on familiar linguistic forms.
- (d) Economists use similes and adjectives in their analysis.
- 4. As used in the passage, which of the following is the closest alternative to the word 'arcane'?
- (a) Mysterious (b) Secret (c) Covert (d) Perfidious

An RC from the past. Try it out guys. Originally posted here: https://www.facebook.com/groups/crackingcat/permalink/608531272634741/

Until the rise of powerful commodity computers, and perhaps more importantly until the development of a widespread awareness of the importance of data security and the popularization of the encryption software it requires, there was little cause for a member of the general public to possess any of the devices commonly associated with enciphering or deciphering secret communications. Such was never the case, however, for agencies tasked with national security. Hence, the waning days of the Second World War and the early days of the Cold War gave rise to a specialized class of cipher systems. Often called mnemonic ciphers, they distinguished themselves by requiring little, if any, in the way of material that would arouse suspicion, and offered extremely high levels of security, but often at the cost of inordinate amounts of time or precision to implement.

Since the province of these ciphers was intelligence, or more specifically that ultimate expression of the spy's game, the so called "humint" that thrived for four troubled decades in Europe, this set of priorities was acceptable. A spy could have no possessions that might betray his or her clandestine operations. If an agent were suspected or captured, any possessions would need to appear as innocent or explicable by means of a cover profession. Ideally, to avoid compromising message security or leaving an evidentiary trail, any key information should be memorized and never written in any documents not already destined for destruction.

From this highly specialized field came a range of mnemonic ciphers, some of the most clever ever developed, from the Soviet intelligence apparatus. This family culminated in the VIC cipher which required no fewer than thirty complex steps to secure even a brief message. Using a memorized "recipe," a Soviet agent would combine together an easily remembered date, a snippet of the lyrics of a popular song, a two-digit personal "agent number," and a five digit number made up for each message into a nearly impervious key that would scramble the text beyond the comprehension of the best Western intelligence and police agencies. Other than understanding the procedure of the cipher, which would be well practiced during training, the spy needed only to remember three individual pieces of information, two of which could be publicly verified should memory fail!

The ingeniously complex keying system with its chain addition and advanced arithmetic fed a complex pair of transposition tables that provided the real security of the cipher. The tables modified the results of a simple straddling checkerboard that served little function beyond turning the textual message into a more easily manipulated string of numerals. Once these steps were done, a communique home to Moscow or instructions back from headquarters was disguised as a long string of numbers, ready for transmission by radio, dead drop, or any other means. And while its nature as a secret communication was clear, the message contained within was as thoroughly obscured as was then possible.

1. According to the passage, which of the following was a requirement of an effective mnemonic cipher?

- (A) It must require few tools or files that could give away a spy's secret operations
- (B) It should include written records to ensure no data is lost
- (C) It must require an extensive and complex process for the agent to follow
- (D) It should disguise the secret nature of the message as commonplace communications
- (E) It need not offer extremely high levels of security
- 2. Based on the information contained within the passage, transposition tables are most likely to be:
- (A) The most effective way of securing a secret message
- (B) One of the components of the VIC cipher
- (C) A technique unique to the VIC cipher
- (D) One of the pieces of information memorized by a Soviet agent
- (E) Part of all mnemonic ciphers
- 3. Which of the following could most reasonably be a title for this passage?
- (A) VIC: Straddling Monoalphabetic Substitution with Modified Double Transposition
- (B) How We Knew: Western Code Breaking Victories over the Soviet Union
- (C) Under the Cloak: Mnemonic Ciphers for Humint Operations
- (D) Digitally Secret: How Computer Ciphers are Changing the Spy Business
- (E) Cold Nights of Fear: Confessions of a Double Agent
- 4. The author's tone towards the ciphers developed by Soviet intelligence agencies could best be described as:
- (A) Concerned
- (B) Critical
- (C) Ambiguous
- (D) Impressed
- (E) Ecstatic

The labor force is often organized as if workers had no family responsibilities. Preschool-age children need full-time care; children in primary school need care after school and during school vacations. Although day-care services can resolve some scheduling conflicts between home and office, workers cannot always find or afford suitable care. Even when they obtain such care, parents must still cope with emergencies, such as illnesses, that keep children at home. Moreover, children need more than tending; they also need meaningful time with their parents. Conventional full-time workdays, especially when combined with unavoidable household duties, are too inflexible for parents with primary child-care responsibility.

Although a small but increasing number of working men are single parents, those barriers against successful participation in the labor market that are related to primary child-care responsibilities mainly disadvantage women. Even in families where both parents work, cultural pressures are traditionally much greater on mothers than on fathers to bear the primary child-rearing responsibilities.

In reconciling child-rearing responsibilities with participation in the labor market, many working mothers are forced to make compromises. For example, approximately one-third of all working mothers are employed only part-time, even though part-time jobs are dramatically underpaid and often less desirable in comparison to full-time employment. Even though part-time work is usually available only in occupations offering minimal employee responsibility and little opportunity for advancement or self-enrichment, such employment does allow many women the time and flexibility to fulfill their family duties, but only at the expense of the advantages associated with full-time employment.

Moreover, even mothers with full-time employment must compromise opportunities in order to adjust to barriers against parents in the labor market. Many choose jobs entailing little challenge or responsibility or those offering flexible scheduling, often available only in poorly paid positions, while other working mothers, although willing and able to assume as much responsibility as people without children, find that their need to spend regular and predictable time with their children inevitably causes them to lose career opportunities to those without such demands. Thus, women in education are more likely to become teachers than school administrators, whose more conventional full-time work schedules do not correspond to the schedules of school-age children, while female lawyers are more likely to practice law in trusts and estates, where they can control their work schedules, than in litigation, where they cannot.

Nonprofessional women are concentrated in secretarial work and department store sales, where their absences can be covered easily by substitutes and where they can enter and leave the work force with little loss, since the jobs offer so little personal gain. Indeed, as long as the labor market remains hostile to parents, and family roles continue to be allocated on the basis of gender, women will be seriously disadvantaged in that labor market.

- 1. Which one of the following best summarizes the main idea of the passage?
- (A) Current trends in the labor force indicate that working parents, especially women, may not always need to choose between occupational and child-care responsibilities.
- (B) In order for mothers to have an equal opportunity for advancement in the labor force,

traditional family roles have to be reexamined and revised.

- (C) Although single parents who work have to balance parental and career demands, single mothers suffer resulting employment disadvantages that single fathers can almost always avoid.
- (D) Traditional work schedules are too inflexible to accommodate the child-care responsibilities of many parents, a fact that severely disadvantages women in the labor force.
- 2. Which one of the following statements about part-time work can be inferred from the information presented in the passage?
- (A) One-third of all part-time workers are working mothers.
- (B) Part-time work generally offers fewer opportunities for advancement to working mothers than to women generally.
- (C) Part-time work, in addition to having relatively poor wages, often requires that employees work during holidays, when their children are out of school.
- (D) Part-time employment, despite its disadvantages, provides working mothers with an opportunity to address some of the demands of caring for children.
- 3. It can be inferred from the passage that the author would be most likely to agree with which one of the following statements about working fathers in two-parent families?
- (A) They are equally burdened by the employment disadvantages placed upon all parentsmale and female-in the labor market.
- (B) They are so absorbed in their jobs that they often do not see the injustice going on around them.
- (C) They are shielded by the traditional allocation of family roles from many of the pressures associated with child-rearing responsibilities.
- (D) They are responsible for many of the problems of working mothers because of their insistence on traditional roles in the family.
- 4. Of the following, which one would the author most likely say is the most troublesome barrier facing working parents with primary child-care responsibility?
- (A) the lack of full-time jobs open to women
- (B) the inflexibility of work schedules
- (C) the low wages of part-time employment
- (D) the practice of allocating responsibilities in the workplace on the basis of gender
- 5. The passage suggests that day care is at best a limited solution to the pressures associated with child rearing for all of the following reasons EXCEPT:
- (A) Even children who are in day care may have to stay home when they are sick.
- (B) Some parents cannot afford day-care services.
- (C) Working parents sometimes have difficulty finding suitable day care for their children.
- (D) Parents who send their children to day care still need to provide care for their children during vacations.
- 6. According to the passage, many working parents may be forced to make any of the following types of career decisions EXCEPT
- (A) declining professional positions for nonprofessional ones, which typically have less conventional work schedules
- (B) limiting the career potential of one parent, often the mother, who assumes greater child-

care responsibility

- (C) taking jobs with limited responsibility, and thus more limited career opportunities, in order to have a more flexible schedule
- (D) pursuing career specializations that allow them to control their work schedules instead of pursuing a more desirable specialization in the same field
- 7. Which one of the following statements would most appropriately continue the discussion at the end of the passage?
- (A) At the same time, most men will remain better able to enjoy the career and salary opportunities offered by the labor market.
- (B) Thus, institutions in society that favor men over women will continue to widen the gap between the career opportunities available for men and for women.
- (C) On the other hand, salary levels may become more equitable between men and women even if the other career opportunities remain more accessible to men than to women.
- (D) On the contrary, men with primary child-rearing responsibilities will continue to enjoy more advantages in the workplace than their female counterparts.

Critics have long been puzzled by the inner contradictions of major characters in John Webster's tragedies. In his The Duchess of Malfi, for instance, the Duchess is "good" in demonstrating the obvious tenderness and sincerity of her love for Antonio, but "bad" in ignoring the wishes and welfare of her family and in making religion a "cloak" hiding worldly self-indulgence. Bosola is "bad" in serving Ferdinand, "good" in turning the Duchess' thoughts toward heaven and in planning to avenge her murder. The ancient Greek philosopher Aristotle implied that such contradictions are virtually essential to the tragic personality, and yet critics keep coming back to this element of inconsistency as though it were an eccentric feature of Webster's own tragic vision.

The problem is that, as an Elizabethan playwright, Webster has become a prisoner of our critical presuppositions. We have, in recent years, been dazzled by the way the earlier Renaissance and medieval theater, particularly the morality play, illuminates Elizabethan drama. We now understand how the habit of mind that saw the world as a battleground between good and evil produced the morality play. Morality plays allegorized that conflict by presenting characters whose actions were defined as the embodiment of good or evil. This model of reality lived on, overlaid by different conventions, in the most sophisticated Elizabethan works of the following age. Yet Webster seems not to have been as heavily influenced by the morality play's model of reality as were his Elizabethan contemporaries; he was apparently more sensitive to the more morally complicated Italian drama than to these English sources. Consequently, his characters cannot be evaluated according to reductive formulas of good and evil, which is precisely what modern critics have tried to do. They choose what seem to be the most promising of the contradictor values that are dramatized in the play, and treat those values as if they were the only basis for analyzing the moral development of the play's major characters, attributing the inconsistencies in a character's behavior to artistic incompetence on Webster's part. The lack of consistency in Webster's characters can be better understood if we recognize that the ambiguity at the heart of his tragic vision lies not in the external world but in the duality of human nature. Webster establishes tension in his plays by setting up conflicting systems of value that appear immoral only when one value system is viewed exclusively from the perspective of the other. He presents us not only with characters that we condemn intellectually or ethically and at the same time impulsively approve of, but also with judgments we must accept as logically sound and yet find emotionally repulsive. The dilemma is not only dramatic: it is tragic, because the conflict is irreconcilable, and because it is ours as much as that of the characters.

- 1. The primary purpose of the passage is to
- (A) clarify an ambiguous assertion
- (B) provide evidence in support of a commonly held view
- (C) analyze an unresolved question and propose an answer
- (D) offer an alternative to a flawed interpretation
- (E) describe and categorize opposing viewpoints
- 2. The author suggests which one of the following about the dramatic works that most influenced Webster's tragedies?

- (A) They were not concerned with dramatizing the conflict between good and evil that was presented in morality plays.
- (B) They were not as sophisticated as the Italian sources from which other Elizabethan tragedies were derived.
- (C) They have never been adequately understood by critics.
- (D) They have only recently been used to illuminate the conventions of Elizabethan drama.
- (E) They have been considered by many critics to be the reason for Webster's apparent artistic incompetence.
- 3. It can be inferred from the passage that modern critics' interpretations of Webster's tragedies would be more valid if
- (A) the ambiguity inherent in Webster's tragic vision resulted from the duality of human nature
- (B) Webster's conception of the tragic personality were similar to that of Aristotle
- (C) Webster had been heavily influenced by the morality play
- (D) Elizabethan dramatists had been more sensitive to Italian sources of influence
- (E) the inner conflicts exhibited by Webster's characters were similar to those of modern audiences
- 4. With which one of the following statements regarding Elizabethan drama would the author be most likely to agree?
- (A) The skill of Elizabethan dramatists has in recent years been overestimated.
- (B) The conventions that shaped Elizabethan drama are best exemplified by Webster's drama.
- (C) Elizabethan drama, for the most part, can be viewed as being heavily influenced by the morality play.
- (D) Only by carefully examining the work of his Elizabethan contemporaries can Webster's achievement as a dramatist be accurately measured.
- (E) Elizabethan drama can best be described as influenced by a composite of Italian and classical sources.
- 5. The author implies that Webster's conception of tragedy was
- (A) artistically flawed
- (B) highly conventional
- (C) largely derived from the morality play
- (D) somewhat different from the conventional Elizabethan conception of tragedy
- (E) uninfluenced by the classical conception of tragedy #RCoftheDay #23

Cultivation of a single crop on a given tract of land leads eventually to decreased yields. One reason for this is that harmful bacterial phytopathogens, organisms parasitic on plant hosts, increase in the soil surrounding plant roots. The problem can be cured by crop rotation, denying the pathogens a suitable host for a period of time. However, even if crops are not rotated, the severity of diseases brought on by such phytopathogens often decreases after a number of years as the microbial population of the soil changes and the soil becomes "suppressive" to those diseases. While there may be many reasons for this phenomenon, it is clear that levels of certain bacteria, such as Pseudomonas fluorescens, a bacterium

antagonistic to a number of harmful phytopathogens, are greater in suppressive than in nonsuppressive soil. This suggests that the presence of such bacteria suppresses phytopathogens. There is now considerable experimental support for this view. Wheat yield increases of 27 percent have been obtained in field trials by treatment of wheat seeds with fluorescent pseudomonas. Similar treatment of sugar beets, cotton, and potatoes has had similar results.

These improvements in crop yields through the application of Pseudomonas fluorescens suggest that agriculture could benefit from the use of bacteria genetically altered for specific purposes. For example, a form of phytopathogen altered to remove its harmful properties could be released into the environment in quantities favorable to its competing with and eventually excluding the harmful normal strain. Some experiments suggest that deliberately releasing altered nonpathogenic Pseudomonas syringae could crowd out the nonaltered variety that causes frost damage. Opponents of such research have objected that the deliberate and large-scale release of genetically altered bacteria might have deleterious results. Proponents, on the other hand, argue that this particular strain is altered only by the removal of the gene responsible for the strain's propensity to cause frost damage, thereby rendering it safer than the phytopathogen from which it was derived.

Some proponents have gone further and suggest that genetic alteration techniques could create organisms with totally new combinations of desirable traits not found in nature. For example, genes responsible for production of insecticidal compounds have been transposed from other bacteria into pseudomonads that colonize corn roots. Experiments of this kind are difficult and require great care: such bacteria are developed in highly artificial environments and may not compete well with natural soil bacteria. Nevertheless, proponents contend that the prospects for improved agriculture through such methods seem excellent. These prospects lead many to hope that current efforts to assess the risks of deliberate release of altered microorganisms will successfully answer the concerns of opponents and create a climate in which such research can go forward without undue impediment.

- 1. Which one of the following best summarizes the main idea of the passage?
- (A) Recent field experiments with genetically altered Pseudomonas bacteria have shown that releasing genetically altered bacteria into the environment would not involve any significant danger.
- (B) Encouraged by current research, advocates of agricultural use of genetically altered bacteria are optimistic that such use will eventually result in improved agriculture, though opponents remain wary.
- (C) Current research indicates that adding genetically altered Pseudomonas syringae bacteria to the soil surrounding crop plant roots will have many beneficial effects, such as the prevention of frost damage in certain crops.
- (D) Genetic alteration of a number of harmful phytopathogens has been advocated by many researchers who contend that these techniques will eventually replace such outdated methods as crop rotation.

- (E) Genetic alteration of bacteria has been successful in highly artificial laboratory conditions, but opponents of such research have argued that these techniques are unlikely to produce organisms that are able to survive in natural environments.
- 2. The author discusses naturally occurring Pseudomonas fluorescens bacteria in the first paragraph primarily in order to do which one of the following?
- (A) prove that increases in the level of such bacteria in the soil are the sole cause of soil suppressivity
- (B) explain why yields increased after wheat fields were sprayed with altered Pseudomonas fluorescens bacteria
- (C) detail the chemical processes that such bacteria use to suppress organisms parasitic to crop plants, such as wheat, sugar beets, and potatoes
- (D) provide background information to support the argument that research into the agricultural use of genetically altered bacteria would be fruitful
- (E) argue that crop rotation is unnecessary, since diseases brought on by phytopathogens diminish in severity and eventually disappear on their own
- 3. It can be inferred from the author's discussion of Pseudomonas fluorescens bacteria that which one of the following would be true of crops impervious to parasitical organisms?
- (A) Pseudomonas fluorescens bacteria would be absent from the soil surrounding their roots.
- (B) They would crowd out and eventually exclude other crop plants if their growth were not carefully regulated.
- (C) Their yield would not be likely to be improved by adding Pseudomonas fluorescens bacteria to the soil.
- (D) They would mature more quickly than crop plants that were susceptible to parasitical organisms.
- (E) Levels of phytopathogenic bacteria in the soil surrounding their roots would be higher compared with other crop plants.
- 4. It can be inferred from the passage that crop rotation can increase yields in part because
- (A) moving crop plants around makes them hardier and more resistant to disease
- (B) the number of Pseudomonas fluorescens bacteria in the soil usually increases when crops are rotated
- (C) the roots of many crop plants produce compounds that are antagonistic to phytopathogens harmful to other crop plants
- (D) the presence of phytopathogenic bacteria is responsible for the majority of plant diseases
- (E) phytopathogens typically attack some plant species but find other species to be unsuitable hosts
- 5. According to the passage, proponents of the use of genetically altered bacteria in agriculture argue that which one of the following is true of the altered bacteria used in the frost-damage experiments?

- (A) The altered bacteria had a genetic constitution differing from that of the normal strain only in that the altered variety had one less gene.
- (B) Although the altered bacteria competed effectively with the nonaltered strain in the laboratory, they were not as viable in natural environments.
- (C) The altered bacteria were much safer and more effective than the naturally occurring Pseudomonas fluorescens bacteria used in earlier experiments.
- (D) The altered bacteria were antagonistic to several types of naturally occurring phytopathogens in the soil surrounding the roots of frost-damaged crops.
- (E) The altered bacteria were released into the environment in numbers sufficient to guarantee the validity of experimental results.
- 6. Which one of the following, if true, would most seriously weaken the proponents' argument regarding the safety of using altered Pseudomonas syringae bacteria to control frost damage?
- (A) Pseudomonas syringae bacteria are primitive and have a simple genetic constitution.
- (B) The altered bacteria are derived from a strain that is parasitic to plants and can cause damage to crops.
- (C) Current genetic-engineering techniques permit the large-scale commercial production of such bacteria.
- (D) Often genes whose presence is responsible for one harmful characteristic must be present in order to prevent other harmful characteristics.
- (E) The frost-damage experiments with Pseudomonas syringae bacteria indicate that the altered variety would only replace the normal strain if released in sufficient numbers.

In 1887 the Dawes Act legislated wide-scale private ownership of reservation lands in the United States for Native Americans. The act allotted plots of 80 acres to each Native American adult. However, the Native Americans were not granted outright title to their lands. The act defined each grant as a "trust patent," meaning that the Bureau of Indian Affairs (BIA), the governmental agency in charge of administering policy regarding Native Americans, would hold the allotted land in trust for 25 years, during which time the Native American owners could use, but not alienate (sell) the land. After the 25-year period, the Native American allottee would receive a "fee patent" awarding full legal ownership of the land.

Two main reasons were advanced for the restriction on the Native Americans' ability to sell their lands. First, it was claimed that free alienability would lead to immediate transfer of large amounts of former reservation land to non-Native Americans, consequently threatening the traditional way of life on those reservations. A second objection to free alienation was that Native Americans were unaccustomed to, and did not desire, a system of private landownership. Their custom, it was said, favored communal use of land.

However, both of these arguments bear only on the transfer of Native American lands to non-Native Americans: neither offers a reason for prohibiting Native Americans from transferring land among themselves. Selling land to each other would not threaten the Native American culture. Additionally, if communal land use remained preferable to Native Americans after allotment, free alienability would have allowed allottees to sell their lands back to the tribe.

When stated rationales for government policies prove empty, using an interest-group model often provides an explanation. While neither Native Americans nor the potential non-Native American purchasers benefited from the restraint on alienation contained in the Dawes Act, one clearly defined group did benefit: the BIA bureaucrats. It has been convincingly demonstrated that bureaucrats seek to maximize the size of their staffs and their budgets in order to compensate for the lack of other sources of fulfillment, such as power and prestige. Additionally, politicians tend to favor the growth of governmental bureaucracy because such growth provides increased opportunity for the exercise of political patronage. The restraint on alienation vastly increased the amount of work, and hence the budgets, necessary to implement the statute. Until allotment was ended in 1934, granting fee patents and leasing Native American lands were among the principal activities of the United States government. One hypothesis, then, for the temporary restriction on alienation in the Dawes Act is that it reflected a compromise between non-Native Americans favoring immediate alienability so they could purchase land and the BIA bureaucrats who administered the privatization system.

- 1. Which one of the following best summarizes the main idea of the passage?
- (A) United States government policy toward Native Americans has tended to disregard their needs and consider instead the needs of non-Native American purchasers of land.
- (B) In order to preserve the unique way of life on Native American reservations, use of Native American lands must be communal rather than individual.
- (C) The Dawes Act's restriction on the right of Native Americans to sell their land may have

been implemented primarily to serve the interests of politicians and bureaucrats.

- (D) The clause restricting free alienability in the Dawes Act greatly expanded United States governmental activity in the area of land administration.
- (E) Since passage of the Dawes Act in 1887, Native Americans have not been able to sell or transfer their former reservation land freely.
- 2. Which one of the following statements concerning the reason for the end of allotment, if true, would provide the most support for the author's view of politicians?
- (A) Politicians realized that allotment was damaging the Native American way of life.
- (B) Politicians decided that allotment would be more congruent with the Native American custom of communal land use.
- (C) Politicians believed that allotment's continuation would not enhance their opportunities to exercise patronage.
- (D) Politicians felt that the staff and budgets of the BIA had grown too large.
- (E) Politicians were concerned that too much Native American land was falling into the hands of non-Native Americans.
- 3. Which one of the following best describes the organization of the passage?
- (A) The passage of a law is analyzed in detail, the benefits and drawbacks of one of its clauses are studied, and a final assessment of the law is offered.
- (B) The history of a law is narrated, the effects of one of its clauses on various populations are studied, and repeal of the law is advocated
- (C) A law is examined, the political and social backgrounds of one of its clauses are characterized, and the permanent effects of the law are studied.
- (D) A law is described, the rationale put forward for one of its clauses is outlined and dismissed, and a different rationale for the clause is presented.
- (E) The legal status of an ethnic group is examined with respect to issues of landownership and commercial autonomy, and the benefits to rival groups due to that status are explained.
- 4. The author's attitude toward the reasons advanced for the restriction on alienability in the Dawes Act at the time of its passage can best be described as
- (A) completely credulous
- (B) partially approving
- (C) basically indecisive
- (D) mildly questioning
- (E) highly skeptical
- 5. It can be inferred from the passage that which one of the following was true of Native American life immediately before passage of the Dawes Act?
- (A) Most Native Americans supported themselves through farming.
- (B) Not many Native Americans personally owned the land on which they lived.
- (C) The land on which most Native Americans lived had been bought from their tribes.
- (D) Few Native Americans had much contact with their non-Native American neighbors.
- (E) Few Native Americans were willing to sell their land to non-Native Americans.

- 6. According to the passage, the type of landownership initially obtainable by Native Americans under the Dawes Act differed from the type of ownership obtainable after a 25-year period in that only the latter allowed
- (A) owners of land to farm it
- (B) owners of land to sell it
- (C) government some control over how owners disposed of land
- (D) owners of land to build on it with relatively minor governmental restrictions
- (E) government to charge owners a fee for developing their land
- 7. Which of the following, if true, would most strengthen the author's argument regarding the true motivation for the passage of the Dawes Act?
- (A) The legislators who voted in favor of the Dawes Act owned land adjacent to Native American reservations.
- (B) The majority of Native Americans who were granted fee patents did not sell their land back to their tribes.
- (C) Native Americans managed to preserve their traditional culture even when they were geographically dispersed.
- (D) The legislators who voted in favor of the Dawes Act were heavily influenced by BIA bureaucrats.
- (E) Non-Native Americans who purchased the majority of Native American lands consolidated them into larger farm holdings.

There is substantial evidence that by 1926, with the publication of The Weary Blues, Langston Hughes had broken with two well-established traditions in African American literature. In The Weary Blues, Hughes chose to modify the traditions that decreed that African American literature must promote racial acceptance and integration, and that, in order to do so, it must reflect an understanding and mastery of Western European literary techniques and styles. Necessarily excluded by this decree, linguistically and thematically, was the vast amount of secular folk material in the oral tradition that had been created by Black people in the years of slavery and after. It might be pointed out that even the spirituals or "sorrow songs" of the slaves – as distinct from their secular songs and stories – had been Europeanized to make them acceptable within these African American traditions after the Civil War. In 1862 northern White writers had commented favorably on the unique and provocative melodies of these "sorrow songs" when they first heard them sung by slaves in the Carolina sea islands. But by 1916, ten years before the publication of The Weary Blues, Harry T. Burleigh, the Black baritone soloist at New York's ultrafashionable Saint George's Episcopal Church, had published Jubilee Songs of the United States, with every spiritual arranged so that a concert singer could sing it "in the manner of an art song." Clearly, the artistic work of Black people could be used to promote racial acceptance and integration only on the condition that it became Europeanized.

Even more than his rebellion against this restrictive tradition in African American art, Hughes's expression of the vibrant folk culture of Black people established his writing as a landmark in the history of African American literature. Most of his folk poems have the distinctive marks of this folk culture's oral tradition: they contain many instances of naming and enumeration, considerable hyperbole and understatement, and a strong infusion of street-talk rhyming. There is a deceptive veil of artlessness in these poems. Hughes prided himself on being an impromptu and impressionistic writer of poetry. His, he insisted, was not an artfully constructed poetry. Yet an analysis of his dramatic monologues and other poems reveals that his poetry was carefully and artfully crafted. In his folk poetry we find features common to all folk literature, such as dramatic ellipsis, narrative compression, rhythmic repetition, and monosyllabic emphasis. The peculiar mixture of irony and humor we find in his writing is a distinguishing feature of his folk poetry. Together, these aspects of Hughes's writing helped to modify the previous restrictions on the techniques and subject matter of Black writers and consequently to broaden the linguistic and thematic range of African American literature.

- 1. The author mentions which one of the following as an example of the influence of Black folk culture on Hughes's poetry?
- (A) his exploitation of ambiguous and deceptive meanings
- (B) his care and craft in composing poems
- (C) his use of naming and enumeration

- (D) his use of first-person narrative
- (E) his strong religious beliefs
- 2. The author suggests that the "deceptive veil" in Hughes's poetry obscures
- (A) evidence of his use of oral techniques in his poetry
- (B) evidence of his thoughtful deliberation in composing his poems
- (C) his scrupulous concern for representative details in his poetry
- (D) his incorporation of Western European literary techniques in his poetry
- (E) his engagement with social and political issues rather than aesthetic ones
- 3. With which one of the following statements regarding Jubilee Songs of the United States would the author be most likely to agree?
- (A) Its publication marked an advance in the intrinsic quality of African American art.
- (B) It paved the way for publication of Hughes's The Weary Blues by making African American art fashionable.
- (C) It was an authentic replication of African American spirituals and "sorrow songs."
- (D) It demonstrated the extent to which spirituals were adapted in order to make them more broadly accepted.
- (E) It was to the spiritual what Hughes's The Weary Blues was to secular songs and stories.
- 4. The author most probably mentions the reactions of northern White writers to non-Europeanized "sorrow songs" in order to
- (A) indicate that modes of expression acceptable in the context of slavery in the South were acceptable only to a small number of White writers in the North after the Civil War
- (B) contrast White writers' earlier appreciation of these songs with the growing tendency after the Civil War to regard Europeanized versions of the songs as more acceptable
- (C) show that the requirement that such songs be Europeanized was internal to the African American tradition and was unrelated to the literary standards or attitudes of White writers
- (D) demonstrate that such songs in their non-Europeanized form were more imaginative than Europeanized versions of the same songs
- (E) suggest that White writers benefited more from exposure to African American art forms than Black writers did from exposure to European art forms
- 5. The passage suggests that the author would be most likely to agree with which one of the following statements about the requirement that Black writers employ Western European literary techniques?
- (A) The requirement was imposed more for social than for aesthetic reasons.
- (B) The requirement was a relatively unimportant aspect of the African American tradition.
- (C) The requirement was the chief reason for Hughes's success as a writer.
- (D) The requirement was appropriate for some forms of expression but not for others.
- (E) The requirement was never as strong as it may have appeared to be.

- 6. Which one of the following aspects of Hughes's poetry does the author appear to value most highly?
- (A) its novelty compared to other works of African American literature
- (B) its subtle understatement compared to that of other kinds of folk literature
- (C) its virtuosity in adapting musical forms to language
- (D) its expression of the folk culture of Black people
- (E) its universality of appeal achieved through the adoption of colloquial expressions

Historians generally agree that, of the great modern innovations, the railroad had the most far-reaching impact on major events in the United States in the nineteenth and early twentieth centuries, particularly on the Industrial Revolution. There is, however, considerable disagreement among cultural historians regarding public attitudes toward the railroad, both at its inception in the 1830s and during the half century between 1880 and 1930, when the national rail system was completed and reached the zenith of its popularity in the United States. In a recent book, John Stilgoe has addressed this issue by arguing that the "romanticera distrust" of the railroad that he claims was present during the 1830s vanished in the decades after 1880. But the argument he provides in support of this position is unconvincing.

What Stilgoe calls "romantic-era distrust" was in fact the reaction of a minority of writers, artists, and intellectuals who distrusted the railroad not so much for what it was as for what it signified. Thoreau and Hawthorne appreciated, even admired, an improved means of moving things and people from one place to another. What these writers and others were concerned about was not the new machinery as such, but the new kind of economy, social order, and culture that it prefigured. In addition, Stilgoe is wrong to imply that the critical attitude of these writers was typical of the period; their distrust was largely a reaction against the prevailing attitude in the 1830s that the railroad was an unqualified improvement.

Stilgoe's assertion that the ambivalence toward the railroad exhibited by writers like Hawthorne and Thoreau disappeared after the 1880s is also misleading. In support of this thesis, Stilgoe has unearthed an impressive volume of material, the work of hitherto unknown illustrators, journalists, and novelists, all devotees of the railroad; but it is not clear what this new material proves except perhaps that the works of popular culture greatly expanded at the time. The volume of the material proves nothing if Stilgoe's point is that the earlier distrust of a minority of intellectuals did not endure beyond the 1880s, and, oddly, much of Stilgoe's other evidence indicates that it did. When he glances at the treatment of railroads by writers like Henry James, Sinclair Lewis, or F. Scott Fitzgerald, what comes through in spite of Stilgoe's analysis is remarkably like Thoreau's feeling of contrariety and ambivalence. (Had he looked at the work of Frank Norris, Eugene O'Neill, or Henry Adams, Stilgoe's case would have been much stronger.) The point is that the sharp contrast between the enthusiastic supporters of the railroad in the 1830s and the minority of intellectual dissenters during that period extended into the 1880s and beyond.

- 1. The passage provides information to answer all of the following questions EXCEPT:
- (A) During what period did the railroad reach the zenith of its popularity in the United States?
- (B) How extensive was the impact of the railroad on the Industrial Revolution in the United States, relative to that of other modern innovations?
- (C) Who are some of the writers of the 1830s who expressed ambivalence toward the railroad?
- (D) In what way could Stilgoe have strengthened his argument regarding intellectuals' attitudes toward the railroad in the years after the 1880s?
- (E) What arguments did the writers after the 1880s, as cited by Stilgoe, offer to justify their support for the railroad?

- 2. According to the author of the passage, Stilgoe uses the phrase "romantic-era distrust" to imply that the view he is referring to was
- (A) the attitude of a minority of intellectuals toward technological innovation that began after 1830
- (B) a commonly held attitude toward the railroad during the 1830s
- (C) an ambivalent view of the railroad expressed by many poets and novelists between 1880 and 1930
- (D) a critique of social and economic developments during the 1830s by a minority of intellectuals
- (E) an attitude toward the railroad that was disseminated by works of popular culture after 1880
- 3. According to the author, the attitude toward the railroad that was reflected in writings of Henry James, Sinclair Lewis, and F. Scott Fitzgerald was
- (A) influenced by the writings of Frank Norris, Eugene O'Neill, and Henry Adams
- (B) similar to that of the minority of writers who had expressed ambivalence toward the railroad prior to the 1880s
- (C) consistent with the public attitudes toward the railroad that were reflected in works of popular culture after the 1880s
- (D) largely a reaction to the works of writers who had been severely critical of the railroad in the 1830s
- (E) consistent with the prevailing attitude toward the railroad during the 1830s
- 4. It can be inferred from the passage that the author uses the phrase "works of popular culture" primarily to refer to the
- (A) work of a large group of writers that was published between 1880 and 1930 and that in Stilgoe's view was highly critical of the railroad
- (B) work of writers who were heavily influenced by Hawthorne and Thoreau
- (C) large volume of writing produced by Henry Adams, Sinclair Lewis, and Eugene O'Neill
- (D) work of journalists, novelists, and illustrators who were responsible for creating enthusiasm for the railroad during the 1830s
- (E) work of journalists, novelists, and illustrators that was published after 1880 and that has received little attention from scholars other than Stilgoe
- 5. Which one of the following can be inferred from the passage regarding the work of Frank Norris, Eugene O'Neill, and Henry Adams?
- (A) Their work never achieved broad popular appeal.
- (B) Their ideas were disseminated to a large audience by the popular culture of the early 1800s.
- (C) Their work expressed a more positive attitude toward the railroad than did that of Henry James, Sinclair Lewis, and F. Scott Fitzgerald.
- (D) Although they were primarily novelists, some of their work could be classified as journalism.
- (E) Although they were influenced by Thoreau, their attitude toward the railroad was significantly different from his.

- 6. It can be inferred from the passage that Stilgoe would be most likely to agree with which one of the following statements regarding the study of cultural history?
- (A) It is impossible to know exactly what period historians are referring to when they use the term"romantic era."
- (B) The writing of intellectuals often anticipates ideas and movements that are later embraced by popular culture.
- (C) Writers who were not popular in their own time tell us little about the age in which they lived.
- (D) The works of popular culture can serve as a reliable indicator of public attitudes toward modern innovations like the railroad.
- (E) The best source of information concerning the impact of an event as large as the Industrial Revolution is the private letters and journals of individuals.
- 7. The primary purpose of the passage is to
- (A) evaluate one scholar's view of public attitudes toward the railroad in the United States from the early nineteenth to the early twentieth century
- (B) review the treatment of the railroad in American literature of the nineteenth and twentieth centuries
- (C) survey the views of cultural historians regarding the railroad's impact on major events in United States history
- (D) explore the origins of the public support for the railroad that existed after the completion of a national rail system in the United States
- (E) define what historians mean when they refer to the "romantic-era distrust" of the railroad

The Constitution of the United States does not explicitly define the extent of the President's authority to involve United States troops in conflicts with other nations in the absence of a declaration of war. Instead, the question of the President's authority in this matter falls in the hazy area of concurrent power, where authority is not expressly allocated to either the President or the Congress. The Constitution gives Congress the basic power to declare war, as well as the authority to raise and support armies and a navy, enact regulations for the control of the military, and provide for the common defense. The President, on the other hand, in addition to being obligated to execute the laws of the land, including commitments negotiated by defense treaties, is named commander in chief of the armed forces and is empowered to appoint envoys and make treaties with the consent of the Senate. Although this allocation of powers does not expressly address the use of armed forces short of a declared war, the spirit of the Constitution at least requires that Congress should be involved in the decision to deploy troops, and in passing the War Powers Resolution of 1973, Congress has at last reclaimed a role in such decisions.

Historically, United States Presidents have not waited for the approval of Congress before involving United States troops in conflicts in which a state of war was not declared. One scholar has identified 199 military engagements that occurred without the consent of Congress, ranging from Jefferson's conflict with the Barbary pirates to Nixon's invasion of Cambodia during the Vietnam conflict, which President Nixon argued was justified because his role as commander in chief allowed him almost unlimited discretion over the deployment of troops. However, the Vietnam conflict, never a declared war, represented a turning point in Congress's tolerance of presidential discretion in the deployment of troops in undeclared wars. Galvanized by the human and monetary cost of those hostilities and showing a new determination to fulfill its proper role, Congress enacted the War Powers Resolution of 1973, a statute designed to ensure that the collective judgment of both Congress and the President would be applied to the involvement of United States troops in foreign conflicts.

The resolution required the President, in the absence of a declaration of war, to consult with Congress "in every possible instance" before introducing forces and to report to Congress within 48 hours after the forces have actually been deployed. Most important, the resolution allows Congress to veto the involvement once it begins, and requires the President, in most cases, to end the involvement within 60 days unless Congress specifically authorizes the military operation to continue. In its final section, by declaring that the resolution is not intended to alter the constitutional authority of either Congress or the President, the resolution asserts that congressional involvement in decisions to use armed force is in accord with the intent and spirit of the Constitution.

- 1. In the passage, the author is primarily concerned with
- (A) showing how the Vietnam conflict led to a new interpretation of the Constitution's provisions for use of the military
- (B) arguing that the War Powers Resolution of 1973 is an attempt to reclaim a share of constitutionally concurrent power that had been usurped by the President
- (C) outlining the history of the struggle between the President and Congress for control of the military

- (D) providing examples of conflicts inherent in the Constitution's approach to a balance of powers
- (E) explaining how the War Powers Resolution of 1973 alters the Constitution to eliminate an overlap of authority
- 2. With regard to the use of United States troops in a foreign conflict without a formal declaration of war by the United States, the author believes that the United States Constitution does which one of the following?
- (A) assumes that the President and Congress will agree on whether troops should be used
- (B) provides a clear-cut division of authority between the President and Congress in the decision to use troops
- (C) assigns a greater role to the Congress than to the President in deciding whether troops should be used
- (D) grants final authority to the President to decide whether to use troops
- (E) intends that both the President and Congress should be involved in the decision to use troops
- 3. The passage suggests that each of the following contributed to Congress's enacting the War Powers Resolution of 1973 EXCEPT
- (A) a change in the attitude in Congress toward exercising its role in the use of armed forces
- (B) the failure of Presidents to uphold commitments specified in defense treaties
- (C) Congress's desire to be consulted concern in United States military actions instigated by the President
- (D) the amount of money spent on recent conflicts waged without a declaration of war
- (E) the number of lives lost in Vietnam
- 4. It can be inferred from the passage that the War Powers Resolution of 1973 is applicable only in "the absence of a declaration of war" because
- (A) Congress has enacted other laws that already set out presidential requirements for situations in which war has been declared
- (B) by virtue of declaring war, Congress already implicitly participates in the decision to deploy troops
- (C) the President generally receives broad public support during wars that have been formally declared by Congress
- (D) Congress felt that the President should be allowed unlimited discretion in cases in which war has been declared
- (E) the United States Constitution already explicitly defines the reporting and consulting requirements of the President in cases in which war has been declared
- 5. It can be inferred from the passage that the author believes that the War Powers Resolution of 1973
- (A) is not in accord with the explicit roles of the President and Congress as defined in the Constitution
- (B) interferes with the role of the President as commander in chief of the armed forces
- (C) signals Congress's commitment to fulfill a role intended for it by the Constitution

- (D) fails explicitly to address the use of armed forces in the absence of a declaration of war (E) confirms the role historically assumed by Presidents
- 6. It can be inferred from the passage that the author would be most likely to agree with which one of the following statements regarding the invasion of Cambodia?
- (A) Because it was undertaken without the consent of Congress, it violated the intent and spirit of the Constitution.
- (B) Because it galvanized support for the War Powers Resolution, it contributed indirectly to the expansion of presidential authority.
- (C) Because it was necessitated by a defense treaty, it required the consent of Congress.
- (D) It served as a precedent for a new interpretation of the constitutional limits on the President's authority to deploy troops.
- (E) It differed from the actions of past Presidents in deploying United States troops in conflicts without a declaration of war by Congress.
- 7. According to the provisions of the War Powers Resolution of 1973 as described in the passage, if the President perceives that an international conflict warrants the immediate involvement of United States armed forces, the President is compelled in every instance to
- (A) request that Congress consider a formal declaration of war
- (B) consult with the leaders of both houses of Congress before deploying armed forces
- (C) desist from deploying any troops unless expressly approved by Congress
- (D) report to Congress within 48 hours of the deployment of armed forces
- (E) withdraw any armed forces deployed in such a conflict within 60 days unless war is declared

The law-and-literature movement claims to have introduced a valuable pedagogical innovation into legal study: instructing students in techniques of literary analysis for the purpose of interpreting laws and in the reciprocal use of legal analysis for the purpose of interpreting literary texts. The results, according to advocates, are not only conceptual breakthroughs in both law and literature but also more sensitive and humane lawyers. Whatever the truth of this last claim, there can be no doubt that the movement is a success: law-and-literature is an accepted subject in law journals and in leading law schools. Indeed, one indication of the movement's strength is the fact that its most distinguished critic, Richard A. Posner, paradoxically ends up expressing qualified support for the movement in a recent study in which he systematically refutes the writings of its leading legal scholars and cooperating literary critics.

Critiquing the movement's assumption that lawyers can offer special insights into literature that deals with legal matters, Posner points out that writers of literature use the law loosely to convey a particular idea or as a metaphor for the workings of the society envisioned in their fiction. Legal questions per se, about which a lawyer might instruct readers, are seldom at issue in literature. This is why practitioners of law-and-literature end up discussing the law itself far less than one might suppose. Movement leader James White, for example, in his discussion of arguments in the Iliad, barely touches on law, and then so generally as to render himself vulnerable to Posner's devastating remark that "any argument can be analogized to a legal dispute."

Similarly, the notion that literary criticism can be helpful in interpreting law is problematic. Posner argues that literary criticism in general aims at exploring richness and variety of meaning in texts, whereas legal interpretation aims at discovering a single meaning. A literary approach can thus only confuse the task of interpreting the law, especially if one adopts current fashions like deconstruction, which holds that all texts are inherently uninterpretable.

Nevertheless, Posner writes that law-and-literature is a field with "promise". Why? Perhaps, recognizing the success of a movement that, in the past, has singled him out for abuse, he is attempting to appease his detractors, paying obeisance to the movements institutional success by declaring that it "deserves a place in legal research" while leaving it to others to draw the conclusion from his cogent analysis that it is an entirely factitious undertaking, deserving of no intellectual respect whatsoever. As a result, his work stands both as a rebuttal of law-and-literature and as a tribute to the power it has come to exercise in academic circles.

- 1. The primary purpose of the passage is to
- (A) assess the law-and-literature movement by examining the position of one of its most prominent critics
- (B) assert that a mutually beneficial relationship exists between the study of law and the study of literature
- (C) provide examples of the law-and-literature movement in practice by discussing the work of its proponents

- (D) dismiss a prominent critics recent study of the law-and-literature movement
- (E) describe the role played by literary scholars in providing a broader context for legal issues
- 2. Posner's stated position with regard to the law-and-literature movement is most analogous to which one of the following?
- (A) a musician who is trained in the classics but frequently plays modern music while performing on stage
- (B) a partisan who transfers allegiance to a new political party that demonstrates more promise but has fewer documented accomplishments
- (C) a sports fan who wholeheartedly supports the team most likely to win rather than his or her personal favorite
- (D) an ideologue who remains committed to his or her own view of a subject in spite of compelling evidence to the contrary
- (E) a salesperson who describes the faults in a fashionable product while conceding that it may have some value
- 3. The passage suggests that Posner regards legal practitioners as using an approach to interpreting law that
- (A) eschews discovery of multiple meanings
- (B) employs techniques like deconstruction
- (C) interprets laws in light of varying community standards
- (D) is informed by the positions of literary critics
- (E) de-emphasizes the social relevance of the legal tradition
- 4. The Passage suggests that Posner might find legal training useful in the interpretation of a literary text in which
- (A) a legal dispute symbolizes the relationship between two characters
- (B) an oppressive law is used to symbolize an oppressive culture
- (C) one of the key issues involves the answer to a legal question
- (D) a legal controversy is used to represent a moral conflict
- (E) the working of the legal system suggests something about the political character of a society
- 5. According to the passage, Posner argues that legal analysis is not generally useful in interpreting literature because
- (A) use of the law in literature is generally of a quite different nature than use of the law in legal practice
- (B) law is rarely used to convey important ideas in literature
- (C) lawyers do not have enough literary training to analyze literature competently
- (D) legal interpretations of literature tend to focus on legal issues to the exclusion of other important elements
- (E) legal interpretations are only relevant to contemporary literature
- 6. According to Posner, the primary difficulty in using literary criticism to interpret law is that

- (A) the goals of the two disciplines are incompatible
- (B) there are few advocates for the law-and-literature movement in the literary profession
- (C) the task of interpreting law is too complex for the techniques of literary criticism
- (D) the interpretation of law relies heavily on legal precedent
- (E) legal scholars are reluctant to adopt the practice in the classroom

From CAT 2003. The joy lies not so much in solving it as it lies in understanding it!

As you set out for Ithaka hope the journey is a long one, full of adventure, full of discovery.

Laistrygonians and Cyclops, angry Poseidon – don't be afraid of them: you'll never find things like that on your way as long as you keep your thoughts raised high, as long as a rare excitement stirs your spirit and your body.

Laistrygonians and Cyclops, wild Poseidon – you won't encounter them unless you bring them along inside your soul, unless your soul sets them up in front of you.

Hope the voyage is a long one, may there be many a summer morning when, with what pleasure, what joy, you come into harbours seen for the first time; may you stop at Phoenician trading stations to buy fine things, mother of pearl and coral, amber and ebony, sensual perfume of every kind – as many sensual perfumes as you can; and may you visit many Egyptian cities to gather stores of knowledge from their scholars.

Keep Ithaka always in your mind.
Arriving there is what you are destined for.
But do not hurry the journey at all.
Better if it lasts for years,
so you are old by the time you reach the island,
wealthy with all you have gained on the way,
not expecting Ithaka to make you rich.

Ithaka gave you the marvelous journey, without her you would not have set out.

She has nothing left to give you now.

And if you find her poor, Ithaka won't have fooled you.

Wise as you will have become, so full of experience, you will have understood by then what these Ithakas mean.

- 1. Which of the following best reflects the central theme of this poem?
- a. If you don't have high expectations, you will not be disappointed.
- b. Don't rush to your goal; the journey is what enriches you.

- c. The longer the journey the greater the experiences you gather.
- d. You cannot reach Ithaka without visiting Egyptian ports.
- 2. The poet recommends a long journey. Which of the following is the most comprehensive reason for it?
- a. You can gain knowledge as well as sensual experience.
- b. You can visit new cities and harbours.
- c. You can experience the full range of sensuality.
- d. You can buy a variety of fine things.
- 3. In the poem, Ithaka is a symbol of
- a. the divine mother.
- b. your inner self.
- c. the path to wisdom.
- d. life's distant goal.
- 4. What does the poet mean by 'Laistrygonians' and 'Cyclops'?
- a. Creatures which, along with Poseidon, one finds during a journey.
- b. Mythological characters that one should not be afraid of.
- c. Intra-personal obstacles that hinder one's journey.
- d. Problems that one has to face to derive the most from one's journey.
- 5. Which of the following best reflects the tone of the poem?
- a. Prescribing
- b. Exhorting
- c. Pleading
- d. Consoling

Many argue that recent developments in electronic technology such as computers and videotape have enabled artists to vary their forms of expression. For example, video art can now achieve images whose effect is produced by "digitalization": breaking up the picture using computerized information processing. Such new technologies create new ways of seeing and hearing by adding different dimensions to older forms, rather than replacing those forms. Consider Locale, a film about a modern dance company. The camera operator wore a Steadicam, an uncomplicated device that allows a camera to be mounted on a person so that the camera remains steady no matter how the operator moves. The Steadicam captures the dance in ways impossible with traditional mounts. Such new equipment also allows for the preservation of previously unrecordable aspects of performances, thus enriching archives.

By Contrast, others claim that technology subverts the artistic enterprise: that artistic efforts achieved with machines preempt human creativity, rather than being inspired by it. The originality of musical performance, for example, might suffer, as musicians would be deprived of the opportunity to spontaneously change pieces of music before live audiences. Some even worry that technology will eliminate live performance altogether; performances will be recorded for home viewing, abolishing the relationship between performer and audience. But these negative views assume both that technology poses an unprecedented challenge to the arts and that we are not committed enough to the artistic enterprise to preserve the live performance, assumptions that seem unnecessarily cynical. In fact, technology has traditionally assisted our capacity for creative expression and can refine our notions of any give art form.

For example, the portable camera and the snapshot were developed at the same time as the rise of impressionist painting in the nineteenth century. These photographic technologies encouraged a new appreciation. In addition, impressionist artists like Degas studied the elements of light and movement captured by instantaneous photography and used their new understanding of the way our perceptions distort reality to try to more accurately capture realty in their work. Since photos can capture the "moments" of a movement, such as a hand partially raised in a gesture of greeting, Impressionist artists were inspired to paint such moments in order to more effectively convey the quality of spontaneous human action. Photography freed artists from the preconception that a subject should be painted in a static, artificial entirety, and inspired them to capture the random and fragmentary qualities of our world. Finally, since photography preempted painting as the means of obtaining portraits, painters had more freedom to vary their subject matter, thus giving rise to the abstract creations characteristic of modern art.

- 1. Which one of the following statements best expresses the main idea of the passage?
- (A) The progress of art relies primarily on technology.
- (B) Technological innovation can be beneficial to art.
- (C) There are risks associated with using technology to create art.
- (D) Technology will transform the way the public responds to art.
- (E) The relationship between art and technology has a lengthy history.

- 2. It can be inferred from the passage that the author shares which one of the following opinions with the opponents of the use of new technology in art?
- (A) The live performance is an important aspect of the artistic enterprise.
- (B) The public's commitment to the artistic enterprise is questionable.
- (C) Recent technological innovations present an entirely new sort of challenge to art.
- (D) Technological innovations of the past have been very useful to artists.
- (E) The performing arts are especially vulnerable to technological innovation.
- 3. Which one of the following, if true, would most undermine the position held by opponents of the use of new technology in art concerning the effect of technology on live performance?
- (A) Surveys show that when recordings of performances are made available for home viewing, the public becomes far more knowledgeable about different performing artists.
- (B) Surveys show that some people feel comfortable responding spontaneously to artistic performances when they are viewing recordings of those performances at home.
- (C) After a live performance, sales of recordings for home viewing of the particular performing artist generally increase.
- (D) The distribution of recordings of artists' performances has begun to attract many new audience members to their live performances.
- (E) Musicians are less apt to make creative changes in musical pieces during recorded performances than during live performances.
- 4. The author uses the example of the Steadicam primarily in order to suggest that
- (A) the filming of performances should not be limited by inadequate equipment
- (B) new technologies do not need to be very complex in order to benefit art
- (C) the interaction of a traditional art form with a new technology will change attitudes toward technology in general
- (D) the replacement of a traditional technology with a new technology will transform definitions of a traditional art form
- (E) new technology does not so much preempt as enhance a traditional art form
- 5. According to the passage, proponents of the use of new electronic technology in the arts claim that which one of the following is true?
- (A) Most people who reject the use of electronic technology in art forget that machines require a person to operate them.
- (B) Electronic technology allows for the expansion of archives because longer performances can be recorded.
- (C) Electronic technology assists artists in finding new ways to present their material.
- (D) Electronic technology makes the practice of any art form more efficient by speeding up the creative process.
- (E) Modern dance is the art form that will probably benefit most from the use of electronic technology.
- 6. It can be inferred from the passage that the author would agree with which one of the following statements regarding changes in painting since the nineteenth century?
- (A) The artistic experiments of the nineteenth century led painters to use a variety of methods in creating portraits, which they then applied to other subject matter.

- (B) The nineteenth-century knowledge of light and movement provided by photography inspired the abstract works characteristic of modern art.
- (C) Once painters no longer felt that they had to paint conventional portraits, they turned exclusively to abstract portraiture.
- (D) Once painters were less limited to the impressionist style, they were able to experiment with a variety of styles of abstract art
- (E) Once painters painted fewer conventional portraits, they had greater opportunity to move beyond the literal depiction of objects.

Until recently many astronomers believed that asteroids travel about the solar system unaccompanied by satellites. These astronomers assumed this because they considered asteroid-satellite systems inherently unstable. Theoreticians could have told them otherwise: even minuscule bodies in the solar system can theoretically have satellites, as long as everything is in proper scale. If a bowling ball were orbiting about the Sun in the asteroid belt, it could have a pebble orbiting it as far away as a few hundred radii (or about 50 meters) without losing the pebble to the Sun's gravitational pull.

Observations now suggest that asteroid satellites may exists not only in theory but also in reality. Several astronomers have noticed, while watching asteroids pass briefly in front of stars, that something besides the known asteroid sometimes blocks out the star as well. Is that something a satellite?

The most convincing such report concerns the asteroid Herculina, which was due to pass in front of a star in 1978. Astronomers waiting for the predicted event found not just one occultation, or eclipse, of the star, but two distinct drops in brightness. One was the predicted occultation, exactly on time. The other, lasting about five seconds, preceded the predicted event by about two minutes. The presence of a secondary body near Herculina thus seemed strongly indicated. To cause the secondary occultation, an unseen satellite would have to be about 45 kilometers in diameter, a quarter of the size of Herculina, and at a distance of 990 kilometers from the asteroid at the time. These values are within theoretical bounds, and such an asteroid-satellite pair could be stable.

With the Herculina event, apparent secondary occultations became "respectable" – and more commonly reported. In fact, so common did reports of secondary events become that they are now simply too numerous for all of them to be accurate. Even if every asteroid has as many satellites as can be fitted around it without an undue number of collisions, only one in every hundred primary occultations would be accompanied by a secondary event (one in every thousand if asteroid satellites system resembled those of the planets).

Yet even astronomers who find the case for asteroid satellites unconvincing at present say they would change their minds if a photoelectric record were made of a well-behaved secondary event. By "well-behaved" they mean that during occultation the observed brightness must drop sharply as the star winks out and must rise sharply as it reappears from behind the obstructing object, but the brightness during the secondary occultation must drop to that of the asteroid, no higher and no lower. This would make it extremely unlikely that an airplane or a glitch in the instruments was masquerading as an occulting body.

- 1. Which one of the following best expresses the main idea of the passage?
- (A) The observation of Herculina represented the crucial event that astronomical observers and theoreticians had been waiting for to establish a convincing case for the stability of asteroid-satellite systems.
- (B) Although astronomers long believed that observation supports the existence of stable asteroid-satellite systems, numerous recent reports have increased skepticism on this issue in astronomy.
- (C) Theoreticians' views on the stability of asteroid-satellite systems may be revised in the

light of reports like those about Herculina.

- (D) Astronomers continue to consider it respectable to doubt the stability of asteroid-satellite systems, but new theoretical developments may change their views.
- (E) The Herculina event suggests that theoreticians' views about asteroid-satellite systems may be correct, and astronomers agree about the kind of evidence needed to clearly resolve the issue.
- 2. Which one of the following is mentioned in the passage as providing evidence that Herculina has a satellite?
- (A) the diameter of a body directly observed near Herculina
- (B) the distance between Herculina and planet nearest to it
- (C) the shortest possible time in which satellites of Herculina, if any, could complete a single orbit
- (D) the occultation that occurred shortly before the predicted occultation by Herculina
- (E) the precise extent to which observed brightness dropped during the occultation by Herculina
- 3. According to the passage, the attitude of astronomers toward asteroid satellites since the Herculina event can best described as
- (A) open-mindedness combined with a concern for rigorous standards of proof
- (B) contempt for and impatience with the position held by theoreticians
- (C) bemusement at a chaotic mix of theory, inadequate or spurious data, and calls for scientific rigor
- (D) hardheaded skepticism, implying rejection of all data not recorded automatically by state-of-the-art instruments
- (E) admiration for the methodical process by which science progresses from initial hypothesis to incontrovertible proof
- 4. The author implies that which one of the following was true prior to reports of the Herculina event?
- (A) Since no good theoretical model existed, all claims that reports of secondary occultations were common were disputed.
- (B) Some of the reported observations of secondary occultations were actually observations of collisions of satellites with one another.
- (C) If there were observations of phenomena exactly like the phenomena now labeled secondary occultations, astronomers were less likely than to have reported such observations.
- (D) The prevailing standards concerning what to classify as a well-behaved secondary event were less stringent than they are now.
- (E) Astronomers were eager to publish their observations of occultations of stars by satellites of asteroids.
- 5. The information presented in the passage implies which one of the following about the frequency of reports of secondary occultations after the Herculina event?
- (A) The percentage of reports of primary occultations that also included reports of secondary occultations increased tenfold compared to the time before the Herculina event.
- (B) Primary occultations by asteroids were reported to have been accompanied by secondary

occultations in about one out of every thousand cases.

- (C) The absolute number of reports of secondary occultations increased tenfold compared to the time before the Herculina event.
- (D) Primary occultations by asteroids were reported to have been accompanied by secondary occultations in more than one out of every hundred cases.
- (E) In more than one out of every hundred cases, primary occultations were reported to have been accompanied by more than one secondary occultation.
- 6. The primary purpose of the passage is to
- (A) cast doubts on existing reports of secondary occultations of stars
- (B) describe experimental efforts by astronomers to separate theoretically believable observations of satellites of asteroids from spurious ones
- (C) review the development of ideas among astronomers about whether or not satellites of asteroids exist
- (D) bring a theoretician's perspective to bear on an incomplete discussion of satellites of asteroids
- (E) illustrate the limits of reasonable speculation concerning the occultation of stars
- 7. The passage suggests that which one of the following would most help to resolve the question of whether asteroids have satellites?
- (A) a review of pre-1978 reports of secondary occultations
- (B) an improved theoretical model of stable satellite systems
- (C) a photoelectric record of a well-behaved secondary occultation
- (D) a more stringent definition of what constitutes a well-behaved secondary occultation
- (E) a powerful telescope that would permit a comparison of ground-based observation with those made from airplanes

Historians attempting to explain how scientific work was done in the laboratory of the seventeenth century chemist and natural philosopher Robert Boyle must address a fundamental discrepancy between how such experimentation was actually performed and the seventeenth-century rhetoric describing it. Leaders of the new Royal Society of London in the 1660s insisted that authentic science depended upon actual experiments performed, observed, and recorded by the scientists themselves. Rejecting the traditional contempt for manual operations, these scientists, all members of the English upper class, were not to think themselves demeaned by the mucking about with chemicals, furnaces, and pumps; rather, the willingness of each of them to become, as Boyle himself said, a mere "drudge" and "underbuilder" in the search for God's truth in nature was taken as a sign of their nobility and Christian piety.

This rhetoric has been so effective that one modern historian assures us that Boyle himself actually performed all of the thousand or more experiments he reported. In fact, due to poor eyesight, fragile health, and frequent absences from his laboratory, Boyle turned over much of the labor of obtaining and recording experimental results to paid technicians, although published accounts of the experiments rarely, if ever, acknowledged the technicians' contributions. Nor was Boyle unique in relying on technicians without publicly crediting their work.

Why were the contributions of these technicians not recognized by their employers? One reason is the historical tendency, which has persisted into the twentieth century, to view scientific discovery as resulting from momentary flashes of individual insight rather than from extended periods of cooperative work by individuals with varying levels of knowledge and skill. Moreover, despite the clamor of seventeenth-century scientific rhetoric commending a hands on approach, science was still overwhelmingly an activity of the English upper class, and the traditional contempt that genteel society maintained for manual labor was pervasive and deeply rooted. Finally, all of Boyle's technicians were "servants," which in seventeenthcentury usage meant anyone who worked for pay. To seventeenth-century sensibilities, the wage relationship was charged with political significance. Servants, meaning wage earners, were excluded from the franchise because they were perceived as ultimately dependent on their wages and thus controlled by the will of their employers. Technicians remained invisible in the political economy of science for the same reasons that underlay servants' general political exclusion. The technicians' contributions, their observations and judgment, if acknowledged, would not have been perceived in the larger scientific community as objective because the technicians were dependent on the wages paid to them by their employers. Servants might have made the apparatus work, but their contributions to the making of scientific knowledge were largely – and conveniently – ignored by their employers.

- 1. Which one of the following best summarizes the main idea of the passage?
- (A) Seventeenth-century scientific experimentation would have been impossible without the work of paid laboratory technicians.
- (B) Seventeenth-century social conventions prohibited upper-class laboratory workers from taking public credit for their work.
- (C) Seventeenth-century views of scientific discovery combined with social class distinctions

to ensure that laboratory technicians' scientific work was never publicly acknowledged.

- (D) Seventeenth-century scientists were far more dependent on their laboratory technicians than are scientists today, yet far less willing to acknowledge technicians' scientific contributions.
- (E) Seventeenth-century scientists liberated themselves from the stigma attached to manual labor by relying heavily on the work of laboratory technicians.
- 2. It can be inferred from the passage that the "seventeenth-century rhetoric" mentioned would have more accurately described the experimentation performed in Boyle's laboratory if which one of the following were true?
- (A) Unlike many seventeenth-century scientists, Boyle recognized that most scientific discoveries resulted from the cooperative efforts of many individuals.
- (B) Unlike many seventeenth-century scientists, Boyle maintained a deeply rooted and pervasive contempt for manual labor.
- (C) Unlike many seventeenth-century scientists, Boyle was a member of the Royal Society of London.
- (D) Boyle generously acknowledged the contribution of the technicians who worked in his laboratory.
- (E) Boyle himself performed the actual labor of obtaining and recording experimental results.
- 3. According to the author, servants in seventeenth century England were excluded from the franchise because of the belief that
- (A) their interests were adequately represented by their employers
- (B) their education was inadequate to make informed political decisions
- (C) the independence of their political judgment would be compromised by their economic dependence on their employers
- (D) their participation in the elections would be a polarizing influence on the political process
- (E) the manual labor that they performed did not constitute a contribution to the society that was sufficient to justify their participation in elections
- 4. According to the author, the Royal Society of London insisted that scientists abandon the
- (A) belief that the primary purpose of scientific discovery was to reveal the divine truth that could be found in nature
- (B) view that scientific knowledge results largely from the insights of a few brilliant individuals rather than from the cooperative efforts of many workers
- (C) seventeenth-century belief that servants should be denied the right to vote because they were dependent on wages paid to them by their employers
- (D) traditional disdain for manual labor that was maintained by most members of the English upper class during the seventeenth century
- (E) idea that the search for scientific truth was a sign of piety
- 5. The author implies that which one of the following beliefs was held in both the seventeenth and the twentieth centuries?
- (A) Individual insights rather than cooperative endeavors produce most scientific discoveries.
- (B) How science is practiced is significantly influenced by the political beliefs and

assumptions of scientists.

- (C) Scientific research undertaken for pay cannot be considered objective.
- (D) Scientific discovery can reveal divine truth in nature.
- (E) Scientific discovery often relies on the unacknowledged contributions of laboratory technicians.
- 6. Which one of the following best describes the organization of the last paragraph?
- (A) Several alternative answers are presented to a question posed in the previous paragraph, and the last is adopted as the most plausible.
- (B) A question regarding the cause of the phenomenon described in the previous paragraph is posed, two possible explanations are rejected, and evidence is provided in support of a third.
- (C) A question regarding the phenomenon described in the previous paragraph is posed, and several incompatible views are presented.
- (D) A question regarding the cause of the phenomenon described in the previous paragraph is posed, and several contributing factors are then discussed.
- (E) Several possible answers to a question are evaluated in light of recent discoveries cited earlier in the passage.
- 7. The author's discussion of the political significance of the "wage relationship" serves to
- (A) place the failure of seventeenth-century scientists to acknowledge the contributions of their technicians in the larger context of relations between workers and their employers in seventeenth-century England
- (B) provide evidence in support of the author's more general thesis regarding the relationship of scientific discovery to the economic conditions of societies in which it takes place
- (C) provide evidence in support of the author's explanation of why scientists in seventeenth-century England were reluctant to rely on their technicians for the performance of anything but the most menial tasks
- (D) illustrate political and economic changes in the society of seventeenth-century England that had a profound impact on how scientific research was conducted
- (E) undermine the view that scientific discovery results from individual enterprise rather than from the collective endeavor of many workers
- 8. It can be inferred from the passage that "the clamor of seventeenth-century scientific rhetoric" refers to
- (A) the claim that scientific discovery results largely from the insights of brilliant individuals working alone
- (B) ridicule of scientists who were members of the English upper class and who were thought to demean themselves by engaging in the manual labor required by their experiments
- (C) criticism of scientists who publicly acknowledged the contributions of their technicians
- (D) assertions by members of the Royal Society of London that scientists themselves should be responsible for obtaining and recording experimental results
- (E) the claim by Boyle and his colleagues that the primary reason for scientific research is to discover evidence of divine truth in the natural world

One type of violation of the antitrust laws is the abuse of monopoly power. Monopoly power is the ability of a firm to raise its prices above the competitive level — that is, above the level that would exist naturally if several firms had to compete — without driving away so many customers as to make the price increase unprofitable. In order to show that a firm has abused monopoly power, and thereby violated the antitrust laws, two essential facts must be established. First, a firm must be shown to possess monopoly power, and second, that power must have been used to exclude competition in the monopolized market or related markets.

The price a firm may charge for its product is constrained by the availability of close substitutes for the product. If a firm attempts to charge a higher price—a supracompetitive price—consumers will turn to other firms able to supply substitute products at competitive prices. If a firm provides a large percentage of the products actually or potentially available, however, customers may find it difficult to buy from alternative suppliers. Consequently, a firm with a large share of the relevant market of substitutable products may be able to raise its price without losing many customers. For this reason courts often use market share as a rough indicator of monopoly power.

Supracompetitive prices are associated with a loss of consumers' welfare because such prices force some consumers to buy a less attractive mix of products than they would ordinarily buy. Supracompetitive prices, however, do not themselves constitute an abuse of monopoly power. Antitrust laws do not attempt to counter the mere existence of monopoly power, or even the use of monopoly power to extract extraordinarily high profits. For example, a firm enjoying economies of scale — that is, low unit production costs due to high volume — does not violate the antitrust laws when it obtains a large market share by charging prices that are profitable but so low that its smaller rivals cannot survive. If the antitrust laws posed disincentives to the existence and growth of such firms, the laws could impair consumers' welfare. Even if the firm, upon acquiring monopoly power, chose to raise prices in order to increase profits, it would not be in violation of the antitrust laws.

The antitrust prohibitions focus instead on abuses of monopoly power that exclude competition in the monopolized market or involve leverage — the use of power in one market to reduce competition in another. One such forbidden practice is a tying arrangement, in which a monopolist conditions the sale of a product in one market on the buyer's purchase of another product in a different market. For example, a firm enjoying a monopoly in the communications systems market might not sell its products to a consumer unless that customer also buys its computer systems, which are competing with other firms' computer systems.

The focus on the abuse of monopoly power, rather than on monopoly itself, follows from the primary purpose of the antitrust laws: to promote consumers' welfare through assurance of the quality and quantity of products available to consumers.

1. Which one of the following distinctions between monopoly power and the abuse of monopoly power would the author say underlies the antitrust laws discussed in the passage?

- (A) Monopoly power is assessed in term of market share, whereas abuse of monopoly power is assessed in term of market control.
- (B) Monopoly power is easy to demonstrate, whereas abuse of monopoly power is difficult to demonstrate.
- (C) Monopoly power involves only one market, whereas abuse of monopoly power involves at least two or more related markets.
- (D) Monopoly power is the ability to charge supracompetitive prices, whereas abuse of monopoly power is the use of that ability.
- (E) Monopoly power does not necessarily hurt consumer welfare, whereas abuse of monopoly power does.
- 2. Would the use of leverage meet the criteria for abuse of monopoly power outlined in the first paragraph?
- (A) No, because leverage involves a nonmonopolized market.
- (B) No, unless the leverage involves a tying arrangement.
- (C) Yes, because leverage is a characteristic of monopoly power.
- (D) Yes, unless the firm using leverage is charging competitive prices.
- (E) Yes, because leverage is used to eliminate competition in a related market.
- 3. What is the main purpose of the third paragraph?
- (A) to distinguish between supracompetitive prices and supracompetitive profits
- (B) to describe the positive use of monopoly power
- (C) to introduce the concept of economies of scale
- (D) to distinguish what is not covered by the antitrust law under discussion from what is covered
- (E) to remind the reader of the issue of consumers welfare
- 4. Given only the information in the passage, with which one of the following statements about competition would those responsible for the antitrust laws most likely agree?
- (A) Competition is essential to consumers' welfare.
- (B) There are acceptable and unacceptable ways for firms to reduce their competition.
- (C) The preservation of competition is the principal aim of the antitrust laws.
- (D) Supracompetitive prices lead to reductions in competition.
- (E) Competition is necessary to ensure high-quality products at low prices.
- 5. Which one of the following sentences would best complete the last paragraph of the passage?
- (A) By limiting consumers' choices, abuse of monopoly power reduces consumers' welfare, but monopoly alone can sometimes actually operate in the consumers' best interest.
- (B) What is needed now is a set of related laws to deal with the negative impacts that monopoly itself has on consumers' ability to purchase products at reasonable cost.
- (C) Over time, the antitrust laws have been very effective in ensuring competition and, consequently, consumers' welfare in the volatile communications and computer systems industries.
- (D) By controlling supracompetitive prices and corresponding supracompetitive profits, the antitrust laws have, indeed, gone a long way toward meeting that objective.

(E) As noted above, the necessary restraints on monopoly itself have been left to the market, where competitive prices and economies of scale are rewarded through increased market share.

Amsden has divided Navajo weaving into four distinct styles. He argues that three of them can be identified by the type of design used to form horizontal bands: colored strips, zigzags, or diamonds. The fourth, or bordered, style he identifies by a distinct border surrounding centrally placed, dominating figures.

Amsden believes that the diamond style appeared after 1869 when, under Anglo influence and encouragement, the blanket became a rug with larger designs and bolder lines. The bordered style appeared about 1890, and, Amsden argues, it reflects the greatest number of Anglo influences on the newly emerging rug business. The Anglo desire that anything with a graphic designs have a top, bottom, and border is a cultural preference that the Navajo abhorred, as evidenced, he suggests, by the fact that in early bordered specimens strips of color unexpectedly break through the enclosing pattern.

Amsden argues that the bordered rug represents a radical break with previous styles. He asserts that the border changed the artistic problem facing weavers: a blank area suggests the use of isolated figures, while traditional, banded Navajo designs were continuous and did not use isolated figures. The old patterns alternated horizontal decorative zones in a regular order.

Amsden's view raises several questions. First, what is involved in altering artistic styles? Some studies suggest that artisans' motor habits and thought processes must be revised when a style changes precipitously. In the evolution of Navajo weaving, however, no radical revisions in the way articles are produced need be assumed. After all, all weaving subordinates design to the physical limitations created by the process of weaving, which includes creating an edge or border. The habits required to make decorative borders are, therefore, latent and easily brought to the surface.

Second, is the relationship between the banded and bordered styles as simple as Amsden suggests? He assumes that a break in style is a break in psychology. But if style results from constant quests for invention, such stylistic breaks are inevitable. When a style has exhausted the possibilities inherent in its principles, artists cast about for new, but not necessarily alien, principles. Navajo weaving may have reached this turning point prior to 1890.

Third, is there really a significant stylistic gap? Two other styles lie between the banded styles and the bordered styles. They suggest that disintegration of the bands may have altered visual and motor habits and prepared the way for a border filled with separate units. In the Chief White Antelope blanket, dated prior to 1865, ten years before the first Anglo trading post on the Navajo reservation, whole and partial diamonds interrupt the flowing design and become separate forms. Parts of diamonds arranged vertically at each side may be seen to anticipate the border.

- 1. The author's central thesis is that
- (A) the Navajo rejected the stylistic influences of Anglo culture
- (B) Navajo weaving cannot be classified by Amsden's categories
- (C) the Navajo changed their style of weaving because they sought the challenge of new artistic problems
- (D) original motor habits and thought processes limit the extent to which a style can be

revised

- (E) the casual factors leading to the emergence of the bordered style are not as clear-cut as Amsden suggests
- 2.It can be inferred from the passage that Amsden views the use of "strips of color" in the early bordered style as
- (A) a sign of resistance to a change in style
- (B) an echo of the diamond style
- (C) a feature derived from Anglo culture
- (D) an attempt to disintegrate the rigid form of the banded style
- (E) a means of differentiating the top of the weaving from the bottom
- 3. The author's view of Navajo weaving suggests which one of the following?
- (A) The appearance of the first trading post on the Navajo reservation coincided with the appearance of the diamond style.
- (B) Traces of thought processes and motor habits of one culture can generally be found in the art of another culture occupying the same period and region.
- (C) The bordered style may have developed gradually from the banded style as a result of Navajo experiencing with design.
- (D) The influence of Anglo culture was not the only non-Native American influence on Navajo weaving.
- (E) Horizontal and vertical rows of diamond forms were transformed by the Navajos into solid lines to create the bordered style.
- 4.According to the passage, Navajo weavings made prior to 1890 typically were characterized by all of the following EXCEPT
- (A) repetition of forms
- (B) overall patterns
- (C) horizontal bands
- (D) isolated figures
- (E) use of color
- 5. The author would most probably agree with which one of the following conclusions about the stylistic development of Navajo weaving?
- (A) The styles of Navajo weaving changed in response to changes in Navajo motor habits and thought processes.
- (B) The zigzag style was the result of stylistic influences from Anglo culture.
- (C) Navajo weaving used isolated figures in the beginning, but combined naturalistic and abstract designs in later styles.
- (D) Navajo weaving changed gradually from a style in which the entire surface was covered by horizontal bands to one in which central figures dominated the surface.
- (E) The styles of Navajo weaving always contained some type of isolated figure.
- 6.The author suggests that Amsden's claim that borders in Navajo weaving were inspired by Anglo culture could be

- (A) conceived as a response to imagined correspondences between Anglo and Navajo art
- (B) biased by Amsden's feelings about Anglo culture
- (C) a result of Amsden's failing to take into account certain aspects of Navajo weaving
- (D) based on a limited number of specimens of the styles of Navajo weaving
- (E) based on a confusion between the stylistic features of the zigzag and diamond styles
- 7. The author most probably mentions the Chief White Antelope blanket in order to
- (A) establish the credit influence of Anglo culture on the bordered style
- (B) cast doubts on the claim that the bordered style arose primarily from Anglo influence
- (C) cite an example of a blanket with a central design and no border
- (D) suggest that the Anglo influence produced significant changes in the two earliest styles of Navajo weaving
- (E) illustrate how the Navajo had exhausted the stylistic possibilities of the diamond style
- 8. The passage is primarily concerned with
- (A) comparing and contrasting different styles
- (B) questioning a view of how a style came into being
- (C) proposing alternative methods of investigating the evolution of styles
- (D) discussing the influence of one culture on another
- (E) analyzing the effect of the interaction between two different cultures

The extent of a nation's power over its coastal ecosystems and the natural resources in its coastal waters has been defined by two international law doctrines: freedom of the seas and adjacent state sovereignty. Until the mid-twentieth century, most nations favored application of broad open-seas freedoms and limited sovereign rights over coastal waters. A nation had the right to include within its territorial dominion only a very narrow band of coastal waters (generally extending three miles from the shoreline), within which it had the authority, but not the responsibility, to regulate all activities. But, because this area of territorial dominion was so limited, most nations did not establish rules for management or protection of their territorial waters.

Regardless of whether or not nations enforced regulations in their territorial waters, large ocean areas remained free of controls or restrictions. The citizens of all nations had the right to use these unrestricted ocean areas for any innocent purpose, including navigation and fishing. Except for controls over its own citizens, no nation had the responsibility, let alone the unilateral authority, to control such activities in international waters. And, since there were few standards of conduct that applied on the "open seas," there were few jurisdictional conflicts between nations.

The lack of standards is traceable to popular perceptions held before the middle of this century. By and large, marine pollution was not perceived as a significant problem, in part because the adverse effect of coastal activities on ocean ecosystems was not widely recognized, and pollution caused by human activities was generally believed to be limited to that caused by navigation. Moreover, the freedom to fish, or overfish, was an essential element of the traditional legal doctrine of freedom of the seas that no maritime country wished to see limited. And finally, the technology that later allowed exploitation of other ocean resources, such as oil, did not yet exist.

To date, controlling pollution and regulating ocean resources have still not been comprehensively addressed by law, but international law—established through the customs and practices of nations—does not preclude such efforts. And two recent developments may actually lead to future international rules providing for ecosystem management. First, the establishment of extensive fishery zones, extending territorial authority as far as 200 miles out from a country's coast, has provided the opportunity for nations individually to manage larger ecosystems. This opportunity, combined with national self-interest in maintaining fish populations, could lead nations to reevaluate policies for management of their fisheries and to address the problem of pollution in territorial waters. Second, the international community is beginning to understand the importance of preserving the resources and ecology of international waters and to show signs of accepting responsibility for doing so. As an international consensus regarding the need for comprehensive management of ocean resources develops, it will become more likely that international standards and policies for broader regulation of human activities that affect ocean ecosystems will be adopted and implemented.

1. According to the passage, until the mid-twentieth century there were few jurisdictional disputes over international waters because

- (A) the nearest coastal nation regulated activities
- (B) few controls or restrictions applied to ocean areas
- (C) the ocean areas were used for only innocent purposes
- (D) the freedom of the seas doctrine settled all claims concerning navigation and fishing
- (E) broad authority over international waters was shared equally among all nations
- 2. According to the international law doctrines applicable before the mid-twentieth century, if commercial activity within a particular nation's territorial waters threatened all marine life in those waters, the nation would have been
- (A) formally censured by an international organization for not properly regulating marine activities
- (B) called upon by other nations to establish rules to protect its territorial waters
- (C) able but not required to place legal limits on such commercial activities
- (D) allowed to resolve the problem at its own discretion providing it could contain the threat to its own territorial waters
- (E) permitted to hold the commercial offenders liable only if they were citizens of that particular nation
- 3. The author suggests that, before the mid-twentieth century, most nations' actions with respect to territorial and international waters indicated that
- (A) managing ecosystems in either territorial or international waters was given low priority
- (B) unlimited resources in international waters resulted in little interest in territorial waters
- (C) nations considered it their responsibility to protect territorial but not international waters
- (D) a nation's authority over its citizenry ended at territorial lines
- (E) although nations could extend their territorial dominion beyond three miles from their shoreline, most chose not to do so
- 4. The author cites which one of the following as an effect of the extension of territorial waters beyond the three-mile limit?
- (A) increased political pressure on individual nations to establish comprehensive laws regulating ocean resources
- (B) a greater number of jurisdictional disputes among nations over the regulation of fishing on the open seas
- (C) the opportunity for some nations to manage large ocean ecosystems
- (D) a new awareness of the need to minimize pollution caused by navigation
- (E) a political incentive for smaller nations to solve the problems of pollution in their coastal waters
- 5. According to the passage, before the middle of the twentieth century, nations failed to establish rules protecting their territorial waters because
- (A) the waters appeared to be unpolluted and to contain unlimited resources
- (B) the fishing industry would be adversely affected by such rules
- (C) the size of the area that would be subject to such rules was insignificant
- (D) the technology needed for pollution control and resource management did not exist
- (E) there were few jurisdictional conflicts over nations' territorial waters
- 6. The passage as a whole can best be described as

- (A) a chronology of the events that have led up to a present-day crisis
- (B) a legal inquiry into the abuse of existing laws and the likelihood of reform
- (C) a political analysis of the problems inherent in directing national attention to an international issue
- (D) a historical analysis of a problem that requires international attention
- (E) a proposal for adopting and implementing international standards to solve an ecological problem

The human species came into being at the time of the greatest biological diversity in the history of the Earth. Today, as human populations expand and alter the natural environment, they are reducing biological diversity to its lowest level since the end of the Mesozoic era, 65 million years ago. The ultimate consequences of this biological collision are beyond calculation, but they are certain to be harmful. That, in essence, is the biodiversity crisis.

The history of global diversity can be summarized as follows: after the initial flowering of multicellular animals, there was a swift rise in the number of species in early Paleozoic times (between 600 and 430 million years ago), then plateaulike stagnation for the remaining 200 million years of the Paleozoic era, and finally a slow but steady climb through the Mesozoic and Cenozoic eras to diversity's all-time high. This history suggests that biological diversity was hard won and a long time in coming. Furthermore, this pattern of increase was set back by five massive extinction episodes. The most recent of these, during the Cretaceous period, is by far the most famous, because it ended the age of the dinosaurs, conferred hegemony on the mammals, and ultimately made possible the ascendancy of the human species. But the cretaceous crisis was minor compared with the Permian extinctions 240 million years ago, during which between 77 and 96 percent of marine animal species perished. It took 5 million years, well into Mesozoic times, for species diversity to begin a significant recovery.

Within the past 10,000 years biological diversity has entered a wholly new era. Human activity has had a devastating effect on species diversity, and the rate of human-induced extinctions is accelerating. Half of the bird species of Polynesia have been eliminated through hunting and the destruction of native forests. Hundreds of fish species endemic to Lake Victoria are now threatened with extinction following the careless introduction of one species of fish, the Nile perch. The list of such biogeographic disasters is extensive.

Because every species is unique and irreplaceable, the loss of biodiversity is the most profound process of environmental change. Its consequences are also the least predictable because the value of Earth's biota (the fauna and flora collectively) remains largely unstudied and unappreciated; unlike material and cultural wealth, which we understand because they are the substance of our everyday lives, biological wealth is usually taken for granted. This is a serious strategic error, one that will be increasingly regretted as time passes. The biota is not only part of a country's heritage, the product of millions of years of evolution centered on that place; it is also a potential source for immense untapped material wealth in the form of food, medicine, and other commercially important substance.

- 1. Which one of the following best expresses the main idea of the passage?
- (A) The reduction in biodiversity is an irreversible process that represents a setback both for science and for society as a whole.
- (B) The material and cultural wealth of a nation are insignificant when compared with the country's biological wealth.
- (C) The enormous diversity of life on Earth could not have come about without periodic extinctions that have conferred preeminence on one species at the expense of another.
- (D) The human species is in the process of initiating a massive extinction episode that may make past episodes look minor by comparison.

- (E) The current decline in species diversity is human-induced tragedy of incalculable proportions that has potentially grave consequences for the human species.
- 2. Which one of the following situations is most analogous to the history of global diversity summarized in lines "The history of global diversity can be summarized ... through the Mesozoic and Cenozoic eras to diversity's all-time high" of the passage?
- (A) The number of fish in a lake declines abruptly as a result of water pollution, then makes a slow comeback after cleanup efforts and the passage of ordinances against dumping.
- (B) The concentration of chlorine in the water supply of large city fluctuates widely before stabilizing at a constant and safe level.
- (C) An old-fashioned article of clothing goes in and out of style periodically as a result of features in fashion magazines and the popularity of certain period films.
- (D) After valuable mineral deposits are discovered, the population of a geographic region booms then levels off and begins to decrease at a slow and steady pace.
- (E) The variety of styles stocked by a shoe store increases rapidly after the store opens, holds constant for many months, and then gradually creeps upward.
- 3. The author suggests which one of the following about the Cretaceous crisis?
- (A) It was the second most devastating extinction episode in history.
- (B) It was the most devastating extinction episode up until that time.
- (C) It was less devastating to species diversity than is the current biodiversity crisis.
- (D) The rate of extinction among marine animal species as a result of the crisis did not approach 77 percent.
- (E) The dinosaurs comprised the great majority of species that perished during the crisis.
- 4. The author mentions the Nile perch in order to provide an example of
- (A) a species that has become extinct through human activity
- (B) the typical lack of foresight that has led to biogeographic disaster
- (C) a marine animal species that survived the Permian extinctions
- (D) a species that is a potential source of material wealth
- (E) the kind of action that is necessary to reverse the decline in species diversity
- 5. All of the following are explicitly mentioned in the passage as contributing to the extinction of species EXCEPT
- (A) hunting
- (B) pollution
- (C) deforestation
- (D) the growth of human populations
- (E) human-engineered changes in the environment
- 6. The passage suggests which one of the following about material and cultural wealth?
- (A) Because we can readily assess the value of material and cultural wealth, we tend not to take them for granted.
- (B) Just as the biota is a source of potential material wealth, it is an untapped source of cultural wealth as well.
- (C) Some degree of material and cultural wealth may have to be sacrificed if we are to protect

our biological heritage.

- (D) Material and cultural wealth are of less value than biological wealth because they have evolved over a shorter period of time.
- (E) Material wealth and biological wealth are interdependent in a way that material wealth and cultural wealth are not.
- 7. The author would be most likely to agree with which one of the following statements about the consequences of the biodiversity crisis?
- (A) The loss of species diversity will have as immediate an impact on the material of nations as on their biological wealth.
- (B) The crisis will likely end the hegemony of the human race and bring about the ascendancy of another species.
- (C) The effects of the loss of species diversity will be dire, but we cannot yet tell how dire.
- (D) It is more fruitful to discuss the consequences of the crisis in terms of the potential loss to humanity than in strictly biological loss to humanity than in strictly biological terms.
- (E) The consequences of the crisis can be minimized, but the pace of extinctions can not be reversed.

Women's participation in the revolutionary events in France between 1789 and 1795 has only recently been given nuanced treatment. Early twentieth century historians of the French Revolution are typified by Jaures, who, though sympathetic to the women's movement of his own time, never even mentions its antecedents in revolutionary France. Even today most general histories treat only cursorily a few individual women, like Marie Antoinette. The recent studies by Landes, Badinter, Godineau, and Roudinesco, however, should signal a much-needed reassessment of women's participation.

Godineau and Roudinesco point to three significant phases in that participation. The first, up to mid-1792, involved those women who wrote political tracts . Typical of their orientation to theoretical issues—in Godineaus's view, without practical effect—is Marie Gouze's Declaration of the Right of Women. The emergence of vocal middle-class women's political clubs marks the second phase. Formed in 1791 as adjuncts of middle-class male political clubs, and originally philanthropic in function, by late 1792 independent clubs of women began to advocate military participation for women. In the final phase, the famine of 1795 occasioned a mass women's movement: women seized food supplies, hold officials hostage, and argued for the implementation of democratic politics. This phase ended in May of 1795 with the military suppression of this multi-class movement. In all three phases women's participation in politics contrasted markedly with their participation before 1789. Before that date some noblewomen participated indirectly in elections, but such participation by more than a narrow range of the population—women or men—came only with the Revolution.

What makes the recent studies particularly compelling, however, is not so much their organization of chronology as their unflinching willingness to confront the reasons for the collapse of the women's movement. For Landes and Badinter, the necessity of women's having to speak in the established vocabularies of certain intellectual and political tradition diminished the ability of the women's movement to resist suppression. Many women, and many men, they argue, located their vision within the confining tradition of Jean-Jacques Rousseau, who linked male and female roles with public and private spheres respectively. But, when women went on to make political alliances with radical Jacobin men, Badinter asserts, they adopted a vocabulary and a violently extremist viewpoint that unfortunately was even more damaging to their political interests.

Each of these scholars has different political agenda and takes a different approach—Godineau, for example, works with police archives while Roudinesco uses explanatory schema from modern psychology. Yet, admirably, each gives center stage to a group that previously has been marginalized, or at best undifferentiated, by historians. And in the case of Landes and Badinter, the reader is left with a sobering awareness of the cost to the women of the Revolution of speaking in borrowed voices.

- 1. Which one of the following best states the main point of the passage?
- (A) According to recent historical studies, the participation of women in the revolutionary events of 1789-1795 can most profitably be viewed in three successive stages.

- (B) The findings of certain recent historical studies have resulted from an earlier general reassessment, by historians, of women's participation in the revolutionary events of 1789-1795.
- (C) Adopting the vocabulary and viewpoint of certain intellectual and political traditions resulted in no political advantage for women in France in the years 1789-1795.
- (D) Certain recent historical studies have provided a much-needed description and evaluation of the evolving roles of women in the revolutionary events of 1789-1795.
- (E) Historical studies that seek to explain the limitations of the women's movement is more convincing than are those that seek only to describe the general features of that movement.
- 2. The passage suggests that Godineau would be likely to agree with which one of the following statements about Marie Gouze's Declaration of the Rights of Women?
- (A) This work was not understood by many of Gouze's contemporaries.
- (B) This work indirectly inspired the formation of independent women's political clubs.
- (C) This work had little impact on the world of political action.
- (D) This work was the most compelling produced by a French woman between 1789 and 1792.
- (E) This work is typical of the kind of writing French women produced between 1793 and 1795.
- 3. According to the passage, which one of the following is a true statement about the purpose of the women's political cubs mentioned in the second paragraph?
- (A) These clubs fostered a mass women's movement.
- (B) These clubs eventually developed a purpose different from their original purpose.
- (C) These clubs were founder to advocate military participation for women.
- (D) These clubs counteracted the original purpose of male political clubs.
- (E) These clubs lost their direction by the time of the famine of 1795.
- 4. The primary function of the first paragraph of the passage is to:
- (A) outline the author's argument about women's roles in Frances between 1789 and 1795
- (B) anticipate possible challenges to the findings of the recent studies of women in France between 1789 and 1795
- (C) summarize some long-standing explanations of the role of individual women in France between 1789 and 1795
- (D) present a context for the discussion of recent studies of women in France between 1789 and 1795
- (E) characterize various eighteenth-century studies of women in France
- 5. The passage suggests that Landes and Badinter would be likely to agree with which one of the following statements about the women's movement in France in the 1790s?
- (A) The movement might have been more successful if women had developed their own political vocabularies.
- (B) The downfall of the movement was probably unrelated to it alliance with Jacobin men.
- (C) The movement had a great deal of choice about whether to adopt a Rousseauist political vocabulary.

- (D) The movement would have triumphed if it had not been suppressed by military means.
- (E) The movement viewed a Rousseauist political tradition, rather than a Jacobin political ideology, as detrimental to its interests.
- 6, In the context of the passage, the word "cost" in the last line refers to the
- (A) dichotomy of private roles for women and public roles for men
- (B) almost nonexistent political participation of women before 1789
- (C) historians' lack of differentiation among various groups of women
- (D) political alliances women made with radical Jacobin men
- (E) collapse of the women's movement in the 1790s
- 7. The author of the passage is primarily concerned with
- (A) criticizing certain political and intellectual traditions
- (B) summarizing the main points of several recent historical studies and assessing their value
- (C) establishing a chronological sequence and arguing for its importance
- (D) comparing and contrasting women's political activities before and after the French Revolution
- (E) reexamining a long-held point of view and isolating its strengths and weaknesses

Art historians' approach to French Impressionism has changed significantly in recent years. While a decade ago Rewald's History of Impressionism, which emphasizes Impressionist painters' stylistic innovations, was unchallenged, the literature on impressionism has now become a kind of ideological battlefield, in which more attention is paid to the subject matter of the paintings, and to the social and moral issues raised by it, than to their style. Recently, politically charged discussions that address the impressionists' unequal treatment of men and women and the exclusion of modern industry and labor from their pictures have tended to crowd out the stylistic analysis favored by Rewald and his followers. In a new work illustrating this trend, Robert L. Herbert dissociates himself from formalists whose preoccupation with the stylistic features of impressionist painting has, in Herbert's view, left the history out of art history; his aim is to restore impressionist paintings "to their sociocultural context." However, his arguments are not finally persuasive.

In attempting to place impressionist painting in its proper historical context, Herbert has redrawn the traditional boundaries of impressionism. Limiting himself to the two decades between 1860 and 1880, he assembles under the impressionist banner what can only be described as a somewhat eccentric grouping of painters. Cezanne, Pisarro, and Sisley are almost entirely ignored, largely because their paintings do not suit Herbert's emphasis on themes of urban life and suburban leisure, while Manet, Degas, and Caillebotte — who paint scenes of urban life but whom many would hardly characterize as impressionists — dominate the first half of the book. Although this new description of Impressionist painting provides a more unified conception of nineteenth-century French painting by grouping quite disparate modernist painters together and emphasizing their common concerns rather than their stylistic difference, it also forces Herbert to overlook some of the most important genres of impressionist painting — portraiture, pure landscape, and still-life painting.

Moreover, the rationale for Herbert's emphasis on the social and political realities that Impressionist paintings can be said to communicate rather than on their style is finally undermined by what even Herbert concedes was the failure of Impressionist painters to serve as particularly conscientious illustrators of their social milieu. They left much ordinary experience—work and poverty, for example—out of their paintings and what they did put in was transformed by a style that had only an indirect relationship to the social realities of the world they depicted. Not only were their pictures inventions rather than photographs, they were inventions in which style to some degree disrupted description. Their painting in effect have two levels of subject: what is represented and how it is represented, and no art historian can afford to emphasize one at the expense of the other.

- 1. Which one of the following best expresses the main point of the passage?
- (A) The style of impressionist paintings has only an indirect relation to their subject matter.
- (B) The approach to impressionism that is illustrated by Herbert's recent book is inadequate.
- (C) The historical context of impressionist paintings is not relevant to their interpretation.
- (D) impressionism emerged from a historical context of ideological conflict and change.
- (E) Any adequate future interpretation of impressionism will have to come to terms with Herbert's view of this art movement.

- 2. According to the passage, Rewald's book on impressionism was characterized by which one of the following?
- (A) evenhanded objectivity about the achievements of impressionism
- (B) bias in favor of certain impressionist painters
- (C) an emphasis on the stylistic features of impressionist painting
- (D) an idiosyncratic view of which painters were to be classified as impressionists
- (E) a refusal to enter into the ideological debates that had characterized earlier discussions of impressionism
- 3. The author implies that Herbert's redefinition of the boundaries of impressionism resulted from which one of the following?
- (A) an exclusive emphasis on form and style
- (B) a bias in favor of the representation of modern industry
- (C) an attempt to place impressionism within a specific sociocultural context
- (D) a broadening of the term impressionism to include all nineteenth-century French painting
- (E) an insufficient familiarity with earlier interpretations of impressionism
- 4. The author states which one of the following about modern industry and labor as subjects for painting?
- (A) The impressionists neglected these subjects in their paintings.
- (B) Herbert's book on impressionism fails to give adequate treatment of these subjects.
- (C) The impressionists' treatment of these subjects was idealized.
- (D) Rewald's treatment of impressionist painters focused inordinately on their representations of these subjects.
- (E) Modernist painters presented a distorted picture of these subjects.
- 5. Which one of the following most accurately describes the structure of the author's argument in the passage?
- (A) The first two paragraphs each present independent arguments for a conclusion that is drawn in the third paragraph.
- (B) A thesis is stated in the first paragraph and revised in the second paragraph and revised in the second paragraph, and the revised thesis is supported with argument in the third paragraph.
- (C) The first two paragraphs discuss and criticize a thesis, and the third paragraph presents an alternative thesis.
- (D) a claim is made in the first paragraph, and the next two paragraph, and the next two paragraphs each present reasons for accepting that claim.
- (E) An argument is presented in the first paragraph, a counterargument is presented in the second paragraph, and the third paragraph suggests a way to resolve the dispute.
- 6. The author's statement that impressionist paintings "were inventions in which style to some degree disrupted description" serves to
- (A) strengthen the claim that impressionist sought to emphasize the differences between painting and photography
- (B) weaken the argument that style is the only important feature of impressionist paintings
- (C) indicate that impressionists recognized that they had been strongly influence by

photography

- (D) support the argument that an exclusive emphasis on the impressionists subject matter is mistaken
- (E) undermine the claim that impressionists neglected certain kinds of subject matter
- 7. The author would most likely regard a book on the impressionists that focused entirely on their style as
- (A) a product of the recent confusion caused by Herbert's book on impressionism
- (B) emphasizing what impressionists themselves took to be their primary artistic concern
- (C) an overreaction against the traditional interpretation of impressionism
- (D) neglecting the most innovative aspects of impressionism
- (E) addressing only part of what an adequate treatment should cover

#RCoftheDay #36 (A)

(Guess I missed a number somewhere, next will be #39 and we will continue from there)

Governments of developing countries occasionally enter into economic development agreements with foreign investors who provide capital and technological expertise that may not be readily available in such countries. Besides the normal economic risk that accompanies such enterprises, investors face the additional risk that the host government may attempt unilaterally to change in its favor the terms of the agreement or even to terminate the agreement altogether and appropriate the project for itself. In order to make economic development agreements more attractive to investors, some developing countries have attempted to strengthen the security of such agreements with clauses specifying that the agreements will be governed by "general principles of law recognized by civilized nations" – a set of legal principles or rules shared by the world's major legal systems. However, advocates of governments' freedom to modify or terminate such agreements argue that these agreements fall within a special class of contracts known as administrative contracts, a concept that originated in French law. They assert that under the theory of administrative contracts, a government retains inherent power to modify or terminate its own contract, and that this power indeed constitutes a general principle of law. However, their argument is flawed on at least two counts.

First, in French law not all government contracts are treated as administrative contracts. Some contracts are designated as administrative by specific statute, in which case the contractor is made aware of the applicable legal rules upon entering into agreement with the government. Alternatively, the contracting government agency can itself designate a contract as administrative by including certain terms not found in private civil contracts. Moreover, even in the case of administrative contracts, French law requires that in the event that the government unilaterally modifies the terms of the contract, it must compensate the contractor for any increased burden resulting from the government's action. In effect, the government is thus prevented from modifying those contractual terms that define the financial balance of the contract.

Second, the French law of administrative contracts, although adopted by several countries, is not so universally accepted that it can be embraced as a general principle of law. In both the United States and the United Kingdom, government contracts are governed by the ordinary law of contracts, with the result that the government can reserve the power to modify or terminate a contract unilaterally only by writing such power into the contract as a specific provision. Indeed, the very fact that termination and modification clauses are commonly found in government contracts suggests that a government's capacity to modify or terminate agreements unilaterally derives from specific contract provisions, not from inherent state power.

- 1. In the passage, the author is primarily concerned with doing which one of the following?
- (A) pointing out flaws in an argument provided in support of a position
- (B) analyzing the weaknesses inherent in the proposed solution to a problem
- (C) marshaling evidence in support of a new explanation of a phenomenon
- (D) analyzing the risks inherent in adopting a certain course of action
- (E) advocating a new approach to a problem that has not been solved by traditional means

- 2. It can be inferred from the passage that the author would be most likely to agree with which one of the following assertions regarding the "general principles of law" mentioned in the first paragraph of the passage?
- (A) They fail to take into account the special needs and interests of developing countries that enter into agreements with foreign investors.
- (B) They have only recently been invoked as criteria for adjudicating disputes between governments and foreign investors.
- (C) They are more compatible with the laws of France and the United States than with those of the United Kingdom.
- (D) They do not assert that governments have an inherent right to modify unilaterally the terms of agreements that they have entered into with foreign investors.
- (E) They are not useful in adjudicating disputes between developing countries and foreign investors.
- 3. The author implies that which one of the following is true of economic development agreements?
- (A) They provide greater economic benefits to the governments that are parties to such agreements than to foreign investors.
- (B) They are interpreted differently by courts in the United Kingdom than they are by courts in the United States.
- (C) They have proliferated in recent years as a result of governments' attempts to make them more legally secure.
- (D) They entail greater risk to investors when the governments that enter into such agreements reserve the right to modify unilaterally the terms of the agreements.
- (E) They have become less attractive to foreign investors as an increasing number of governments that enter into such agreements consider them governed by the law of ordinary contracts.
- 4. According to the author, which one of the following is true of a contract that is designated by a French government agency as an administrative contract?
- (A) It requires the government agency to pay for unanticipated increases in the cost of delivering the goods and services specified in the contract.
- (B) It provides the contractor with certain guarantees that are not normally provided in private civil contracts.
- (C) It must be ratified by the passage of a statute.
- (D) It discourages foreign companies from bidding on the contract.
- (E) It contains terms that distinguish it from a private civil contract.
- 5. It can be inferred from the last paragraph of the passage that under the "ordinary law of contracts", a government would have the right to modify unilaterally the terms of a contract that it had entered into with a foreign investor if which one of the following were true?
- (A) The government undertook a greater economic risk by entering into the contract than did the foreign investor.
- (B) The cost to the foreign investor of abiding by the terms of the contract exceeded the original estimates of such costs.
- (C) The modification of the contract did not result in any increased financial burden for the

investor.

- (D) Both the government and the investor had agreed to abide by the general principles of law recognized by civilized nations.
- (E) The contract contains a specific provision allowing the government to modify the contract.
- 6. In the last paragraph, the author refers to government contracts in the United States and the United Kingdom primarily in order to
- (A) Cite two governments that often reserve the right to modify unilaterally contracts that they enter into with foreign investors.
- (B) Support the assertion that there is no general principle of law governing contracts between private individuals and governments.
- (C) Cast doubt on the alleged universality of the concept of administrative contracts.
- (D) Provide examples of legal systems that might benefit from the concept of administrative contracts.
- (E) Provide examples of characteristics that typically distinguish government contracts from private civil contracts.
- 7. Which one of the following best states the author's main conclusion in the passage?
- (A) Providing that an international agreement be governed by general principles of law is not a viable method of guaranteeing the legal security of such an agreement.
- (B) French law regarding contracts is significantly different from those in the United States and the United Kingdom.
- (C) Contracts between governments and private investors in most nations are governed by ordinary contract law.
- (D) An inherent power of a government to modify or terminate a contract cannot be considered a general principle of law.
- (E) Contracts between governments and private investors can be secured only by reliance on general principles of law.
- 8. The author's argument in the last line of the last paragraph would be most weakened if which one of the following were true?
- (A) The specific provisions of government contracts often contain explicit statements of what all parties to the contracts already agree are inherent state powers.
- (B) Governments are more frequently put in the position of having to modify or terminate contracts than are private individuals.
- (C) Modification clauses in economic development agreements have frequently been challenged in international tribunals by foreign investors who were a party to such agreements.
- (D) The general principles of law provide that modification clauses cannot allow the terms of a contract to be modified in such a way that the financial balance of the contract is affected.
- (E) Termination and modification agreements are often interpreted differently by national courts than they are by international tribunals.

Nico Frijda writes that emotions are governed by a psychological principle called the "law of apparent reality": emotions are elicited only by events appraised as real, and the intensity of these emotions corresponds to the degree to which these events are appraised as real. This observation seems psychologically plausible, but emotional responses elicited by works of art raise counterexamples.

Frijda's law accounts for my panic if I am afraid of snakes and see an object I correctly appraise as a rattlesnake, and also for my identical response if I see a coiled garden hose I mistakenly perceive to be a snake. However, suppose I am watching a movie and see a snake gliding toward its victim. Surely I might experience the same emotions of panic and distress, though I know the snake is not real. These responses extend even to phenomena not conventionally accepted as real. A movie about ghosts, for example, may be terrifying to all viewers, even those who firmly reject the possibility of ghosts, but this is not because viewers are confusing cinematic depiction with reality. Moreover, I can feel strong emotions in response to objects of art that are interpretations, rather than representations, of reality: I am moved by Mozart's Requiem, but I know that I am not at a real funeral. However, if Frijda's law is to explain all emotional reactions, there should be no emotional response at all to aesthetic objects or events, because we know they are not real in the way a living rattlesnake is real.

Most psychologists, perplexed by the feelings they acknowledge are aroused by aesthetic experience, have claimed that these emotions are genuine, but different in kind from nonaesthetic emotions. This, however, is a descriptive distinction rather than an empirical observation and consequently lacks explanatory value. On the other hand, Gombrich argues that emotional responses to art are ersatz: art triggers remembrances of previously experienced emotions. These debates have prompted the psychologist Radford to argue that people do experience real melancholy or joy in responding to art, but that these are irrational responses precisely because people know they are reacting to illusory stimuli. Frijda's law does not help us to untangle these positions, since it simply implies that events we recognize as being represented rather than real cannot elicit emotion in the first place.

Frijda does suggest that a vivid imagination has "properties of reality" — implying, without explanation, that we make aesthetic objects or events "real" in the act of experiencing them. However, as Scruton argues, a necessary characteristic of the imaginative construction that can occur in an emotional response to art is that the person knows he or she is pretending. This is what distinguishes imagination from psychotic fantasy.

- 1. Which one of the following best states the central idea of the passage?
- (A) The law of apparent reality fails to account satisfactorily for the emotional nature of belief.
- (B) Theories of aesthetic response fail to account for how we distinguish unreasonable from reasonable responses to art.
- (C) The law of apparent reality fails to account satisfactorily for emotional responses to art.
- (D) Psychologists have been unable to determine what accounts for the changeable nature of

emotional responses to art.

- (E) Psychologists have been unable to determine what differentiates aesthetic from nonaesthetic emotional responses.
- 2. According to the passage, Frijda's law asserts that emotional responses to events are
- (A) unpredictable because emotional responses depend on how aware the person is of the reality of an event
- (B) weaker if the person cannot distinguish illusion from reality
- (C) more or less intense depending on the degree to which the person perceives the event to be real
- (D) more intense if the person perceives an event to be frightening
- (E) weaker if the person judges an event to be real but unthreatening
- 3. The author suggests that Frijda's notion of the role of imagination in aesthetic response is problematic because it
- (A) ignores the unselfconsciousness that is characteristic of emotional responses to art
- (B) ignores the distinction between genuine emotion and ersatz emotion
- (C) ignores the fact that a person who is imagining knows that he or she is imagining
- (D) makes irrelevant distinctions between vivid and weak imaginative capacities
- (E) suggests, in reference to the observation of art, that there is no distinction between real and illusory stimuli
- 4. The passage supports all of the following statements about the differences between Gombrich and Radford EXCEPT:
- (A) Radford's argument relies on a notion of irrationality in a way that Gombrich's argument does not.
- (B) Gombrich's position is closer to the position of the majority of psychologists than is Radford's.
- (C) Gombrich, unlike Radford, argues that we do not have true emotions in response to art.
- (D) Gombrich's argument rests on a notion of memory in a way that Radford's argument does not.
- (E) Radford's argument, unlike Gombrich's, is not focused on the artificial quality of emotional responses to art.
- 5. Which one of the following best captures the progression of the author's argument in the second paragraph?
- (A) The emotional responses to events ranging from the real to the depicted illustrate the irrationality of emotional response.
- (B) A series of events that range from the real to the depicted conveys the contrast between real events and cinematic depiction.
- (C) An intensification in emotional response to a series of events that range from the real to the depicted illustrates Frijda's law.
- (D) A progression of events that range from the real to the depicted examines the precise nature of panic in relation to a feared object.
- (E) The consistency of emotional responses to events that range from the real to the depicted challenges Frijda's law.

- 6. The author's assertions concerning movies about ghosts imply that all of the following statements are false EXCEPT:
- (A) Movies about ghosts are terrifying in proportion to viewers' beliefs in the phenomenon of ghosts.
- (B) Movies about imaginary phenomena like ghosts may be just as terrifying as movies about phenomena like snakes.
- (C) Movies about ghosts and snakes are not terrifying because people know that what they are viewing is not real.
- (D) Movies about ghosts are terrifying to viewers who previously rejected the possibility of ghosts because movies permanently alter the viewers' sense of reality.
- (E) Movies about ghosts elicit a very different emotional response from viewers who do not believe in ghosts than movies about snakes elicit from viewers who are frightened by snakes.
- 7. Which one of the following statements best exemplifies the position of Radford concerning the nature of emotional response to art?
- (A) A person watching a movie about guerrilla warfare irrationally believes that he or she is present at the battle.
- (B) A person watching a play about a kidnapping feels nothing because he or she rationally realizes it is not a real event.
- (C) A person gets particular enjoyment out of writing fictional narratives in which he or she figures as a main character.
- (D) A person irrationally bursts into tears while reading a novel about a destructive fire, even while realizing that he or she is reading about a fictional event.
- (E) A person who is afraid of snakes trips over a branch and irrationally panics.

Ideal time to solve should be around 10 minutes.

Although bacteria are unicellular and among the simplest autonomous forms of life, they show a remarkable ability to sense their environment. They are attracted to materials they need and are repelled by harmful substances. Most types of bacteria swim very erratically; short smooth runs in relatively straight lines are followed by brief tumbles, after which the bacteria shoot off in random directions. This leaves researchers with the question of how such bacteria find their way to an attractant such as food or, in the case of photosynthetic bacteria, light, if their swimming pattern consists only of smooth runs and tumbles, the latter resulting in random changes in direction.

One clue comes from the observation that when a chemical attractant is added to a suspension of such bacteria, the bacteria swim along a gradient of the attractant, from an area where the concentration of the attractant is weaker to an area where it is stronger. As they do so, their swimming is characterized by a decrease in tumbling and an increase in straight runs over relatively longer distances. As the bacteria encounter increasing concentrations of the attractant, their tendency to tumble is suppressed, whereas tumbling increases whenever they move away from the attractant. The net effect is that runs in the direction of higher concentrations of the attractant become longer and straighter as a result of the suppression of tumbling, whereas runs away from it are shortened by an increased tendency of the bacteria to tumble and change direction.

Biologists have proposed two mechanisms that bacteria might use in detecting changes in the concentration of a chemical attractant. First, a bacterium might compare the concentration of a chemical at the front and back of its cell body simultaneously. If the concentration is higher at the front of the cell, then it knows it is moving up the concentration gradient, from an area where the concentration is lower to an area where it is higher. Alternatively, it might measure the concentration at one instant and again after a brief interval, in which case the bacterium must retain a memory of the initial concentration. Researchers reasoned that if bacteria do compare concentrations at different times, then when suddenly exposed to a uniformly high concentration of an attractant, the cells would behave as if they were swimming up a concentration gradient, with long, smooth runs and relatively few tumbles. If, on the other hand, bacteria detect a chemical gradient by measuring it simultaneously at two distinct points, front and back, on the cell body, they would not respond to the jump in concentration because the concentration of the attractant in front and back of the cells, though high, would be uniform. Experimental evidence suggests that bacteria compare concentrations at different times.

- 1. It can be inferred from the passage that which one of the following experimental results would suggest that bacteria detect changes in the concentration of an attractant by measuring its concentration in front and back of the cell body simultaneously?
- (A) When suddenly transferred from a medium in which the concentration of an attractant was uniformly low to one in which the concentration was uniformly high, the tendency of the bacteria to tumble and undergo random changes in direction increased.
- (B) When suddenly transferred from a medium in which the concentration of an attractant was uniformly low to one in which the concentration was uniformly high, the bacteria

exhibited no change in the pattern of their motion.

- (C) When suddenly transferred from a medium in which the concentration of an attractant was uniformly low to one in which the concentration was uniformly high, the bacteria's movement was characterized by a complete absence of tumbling.
- (D) When placed in a medium in which the concentration of an attractant was in some areas low and in others high, the bacteria exhibited an increased tendency to tumble in those areas where the concentration of the attractant was high.
- (E) When suddenly transferred from a medium in which the concentration of an attractant was uniformly low to one that was completely free of attractants, the bacteria exhibited a tendency to suppress tumbling and move in longer, straighter lines.
- 2. It can be inferred from the passage that a bacterium would increase the likelihood of its moving away from an area where the concentration of a harmful substance is high if it did which one of the following?
- (A) increased the speed at which it swam immediately after undergoing the random changes in direction that result from tumbling
- (B) detected a concentration gradient of an attractant toward which it could begin to swim
- (C) relied on the simultaneous measurement of the concentration of the substance in front and back of its body, rather than on the comparison of the concentration at different points in time
- (D) exhibited a complete cessation of tumbling when it detected increases in the concentration of the substance.
- (E) exhibited an increased tendency to tumble as it encountered increasing concentrations of the substance, and suppressed tumbling as it detected decreases in the concentration of the substance
- 3. It can be inferred from the passage that when describing bacteria as "swimming up a concentration gradient", the author means that they were behaving as if they were swimming
- (A) against a resistant medium that makes their swimming less efficient
- (B) away from a substance to which they are normally attracted
- (C) away from a substance that is normally harmful to them
- (D) from an area where the concentration of a repellent is weaker to an area where it is completely absent
- (E) from an area where the concentration of a substance is weaker to an area where it is stronger
- 4. The passage indicates that the pattern that characterizes a bacterium's motion changes in response to
- (A) the kinds of chemical attractants present in different concentration gradients
- (B) the mechanism that the bacterium adopts in determining the presence of an attractant
- (C) the bacterium's detection of changes in the concentration of an attractant
- (D) the extent to which neighboring bacteria are engaged in tumbling
- (E) changes in the intervals of time that occur between the bacterium's measurement of the concentration of an attractant

- 5. Which one of the following best describes the organization of the third paragraph of the passage?
- (A) Two approaches to a problem are discussed, a test that would determine which is more efficient is described, and a conclusion is made, based on experimental evidence.
- (B) Two hypotheses are described, a way of determining which of them is more likely to be true is discussed, and one is said to be more accurate on the basis of experimental evidence.
- (C) Two hypotheses are described, the flaws inherent in one of them are elaborated, and experimental evidence confirming the other is cited.
- (D) An assertion that a species has adopted two different mechanisms to solve a particular problem is made, and evidence is then provided in support of that assertion.
- (E) An assertion that one mechanism for solving a particular problem is more efficient than another is made, and evidence is then provided in support of that assertion.
- 6. The passage provides information in support of which one of the following assertions?
- (A) The seemingly erratic motion exhibited by a microorganism can in fact reflect a mechanism by which it is able to control its movement.
- (B) Biologists often overstate the complexity of simple organisms such as bacteria.
- (C) A bacterium cannot normally retain a memory of a measurement of the concentration of an attractant.
- (D) Bacteria now appear to have less control over their movement than biologists had previously hypothesized.
- (E) Photosynthetic bacteria appear to have more control over their movement than do bacteria that are not photosynthetic.

Anthropologist David Mandelbaum makes a distinction between life-passage studies and life-history studies which emerged primarily out of research concerning Native Americans. Life-passage studies, he says, "emphasize the requirements of society, showing how groups socialize and enculturate their young in order to make them into viable members of society." Life histories, however, "emphasize the experiences and requirements of the individual, how the person copes with society rather than how society copes with the stream of individuals." Life-passage studies bring out the general cultural characteristics and commonalities that broadly define a culture, but are unconcerned with an individual's choices or how the individual perceives and responds to the demands and expectations imposed by the constraints of his or her culture. This distinction can clearly be seen in the autobiographies of Native American women.

For example, some early recorded autobiographies, such as The Autobiography of a Fox , a life passage recorded by anthropologist Truman Michelson, emphasizes prescribed roles. The narrator presents her story in a way that conforms with tribal expectations. Michelson's work is valuable as ethnography, as a reflection of the day-to-day responsibilities of Mesquakie women, yet as is often the case with life-passage studies, it presents little of the central character's psychological motivation. The Fox woman's life story focuses on her tribal education and integration into the ways of her people, and relates only what Michelson ultimately decided was worth preserving. The difference between the two types of studies is often the result of the amount of control the narrator maintains over the material; autobiographies in which there are no recorder-editors are far more reflective of the life-history category, for there are no outsiders shaping the story to reflect their preconceived notions of what the general cultural patterns are.

For example, in Maria Campbell's account of growing up as a Canadian Metis who was influenced strongly, and often negatively, by the non-Native American world around her, one learns a great deal about the life of Native American women, but Campbell's individual story, which is told to us directly, is always the center of her narrative. Clearly it is important to her to communicate to the audience what her experiences as a Native American have been. Through Campbell's story of her family the reader learns of the effect of poverty and prejudice on a people. The reader becomes an intimate of Campbell the writer, sharing her pain and celebrating her small victories. Although Campbell's book is written as a life history (the dramatic moments, the frustrations, and the fears are clearly hers), it reveals much about ethnic relations in Canada while reflecting the period in which it was written.

- 1. Which one of the following is the most accurate expression of the main point of the passage?
- (A) The contributions of life-history studies to anthropology have made life-passage studies obsolete.
- (B) Despite their dissimilar approaches to the study of culture, life-history and life-passage studies have similar goals.
- (C) The autobiographies of Native American women illustrate the differences between lifehistory and life-passage studies.
- (D) The roots of Maria Campbell's autobiography can be traced to earlier narratives such as

The Autobiography of a Fox Indian Woman.

- (E) Despite its shortcomings, the life-passage study is a more effective tool than the life-history study for identifying important cultural patterns.
- 2. The term "prescribed roles" at the beginning of the second paragraph of the passage refers to the
- (A) Function of life-passage studies in helping ethnologists to understand cultural tradition.
- (B) Function of life-history studies in helping ethnologists to gather information.
- (C) Way in which a subject of a life passage views himself or herself.
- (D) Roles clearly distinguishing the narrator of an autobiography from the recorder of an autobiography.
- (E) Roles generally adopted by individuals in order to comply with cultural demands.
- 3. The reference to the "psychological motivation" (line 30) of the subject of The Autobiography of a Fox Indian Woman serves primarily to
- (A) Dismiss as irrelevant the personal perspective in the life-history study.
- (B) Identify an aspect of experience that is not commonly a major focus of life-passage studies.
- (C) Clarify the narrator's self-acknowledged purpose in relating a life passage.
- (D) Suggest a common conflict between the goals of the narrator and those of the recorder in most life-passage studies.
- (E) Assert that developing an understanding of an individual's psychological motivation usually undermines objective ethnography.
- 4. Which one of following statements about Maria Campbell can be inferred from material in the passage?
- (A) She was familiar with the very early history of her tribe but lacked insight into the motivations of non-Native Americans.
- (B) She was unfamiliar with Michelson's work but had probably read a number of life-passage studies about Native Americans.
- (C) She had training as a historian but was not qualified as an anthropologist.
- (D) Her family influenced her beliefs and opinions more than the events of her time did.
- (E) Her life history provides more than a record of her personal experience.
- 5. According to the passage, one way in which life history studies differ from life-passage studies is that life-history studies are
- (A) Usually told in the subject's native language.
- (B) Less reliable because they rely solely on the subject's recall.
- (C) More likely to be told without the influence of an intermediary.
- (D) More creative in the way they interpret the subject's cultural legacy.
- (E) More representative of the historian's point of view than of the ethnographer's.
- 6. Which one of the following pairings best illustrates the contrast between life passages and life histories?
- (A) A study of the attitudes of a society toward a mainstream religion and an analysis of techniques used to instruct members of that religious group.

- (B) A study of how a preindustrial society maintains peace with neighboring societies and a study of how a postindustrial society does the same.
- (C) A study of the way a military organization establishes and maintains discipline and a newly enlisted soldier's narrative describing his initial responses to the military environment.
- (D) An analysis of a society's means of subsistence and a study of how its members celebrate religious holidays.
- (E) A political history of a society focusing on leaders and parties and a study of how the electorate shaped the political landscape of the society.

The Taft-Hartley Act, passed by the United States Congress in 1947, gave states the power to enact "right-to-work" legislation that prohibits union shop agreements. According to such an agreement, a labor union negotiates wages and working conditions for all workers in a business, and all workers are required to belong to the union. Since 1947, 20 states have adopted right-to-work laws. Much of the literature concerning right-to-work laws implies that such legislation has not actually had a significant impact. This point of view, however, has not gone uncriticized. Thomas M. Carroll has proposed that the conclusions drawn by previous researchers are attributable to their myopic focus on the premise that, unless right-to-work laws significantly reduce union membership within a state, they have no effect. Carroll argues that the right-to-work laws "do matter" in that such laws generate differences in real wages across states. Specifically, Carroll indicates that while rightto-work laws may not "destroy" unions by reducing the absolute number of unionized workers, they do impede the spread of unions and thereby reduce wages within right-towork states. Because the countervailing power of unions is weakened in right-to-work states, manufacturers and their suppliers can act collusively in competitive labor markets, thus lowering wages in the affected industries.

Such a finding has important implications regarding the demographics of employment and wages in right-to-work states. Specifically, if right-to-work laws lower wages by weakening union power, minority workers can be expected to suffer a relatively greater economic disadvantage in right-to-work states than in union shop states. This is so because, contrary to what was once thought, unions tend to have a significant positive impact on the economic position of minority workers, especially Black workers, relative to White workers. Most studies concerned with the impact of unionism on the Black worker's economic position relative to the White worker's have concentrated on the changes in Black wages due to union membership. That is, they have concentrated on union versus nonunion wage differentials within certain occupational groups. In a pioneering study, however, Ashenfelter finds that these studies overlook an important fact: although craft unionism increases the differential between the wages of White workers and Black workers due to the traditional exclusion of minority workers from unions in the craft sectors of the labor market, strong positive wage gains are made by Black workers within industrial unions. In fact, Ashenfelter estimates that industrial unionism decreases the differential between the wages of Black workers and White workers by about 3 percent. If state right-to-work laws weaken the economic power of unions to raise wages, Black workers will experience a disproportionate decline in their relative wage positions. Black workers in right-to-work states would therefore experience a decline in their relative economic positions unless there is strong economic growth in right-to-work states, creating labor shortages and thereby driving up wages.

- 1. The reasoning behind the "literature" in the line "Much of the literature concerning right-to-work laws implies that such legislation has not actually had a significant impact", as that reasoning is presented in the passage, is most analogous to the reasoning behind which one of the following situations?
- (A) A law is proposed that benefits many but disadvantages a few; those advocating passage of the law argue that the disadvantages to a few are not so serious that the benefits should be

denied to many.

- (B) A new tax on certain categories of consumer items is proposed; those in favor of the tax argue that those affected by the tax are well able to pay it, since the items taxed are luxury items.
- (C) A college sets strict course requirements that every student must complete before graduating; students already enrolled argue that it is unfair for the new requirements to apply to those enrolled before the change.
- (D) The personnel office of a company designs a promotion policy requiring that all promotions become effective on January 1; the managers protest that such a policy means that they cannot respond fast enough to changes in staffing needs.
- (E) A fare increase in a public transportation system does not significantly reduce the number of fares sold; the management of the public transportation system asserts, therefore, that the fare hike has had no negative effects.
- 2. According to the passage, which one of the following is true of Carroll's study?
- (A) It implies that right-to-work laws have had a negligible effect on workers in right-to-work states.
- (B) It demonstrates that right-to-work laws have significantly decreased union membership from what it once was in right-to-work states.
- (C) It argues that right-to-work laws have affected wages in right-to-work states.
- (D) It supports the findings of most earlier researchers.
- (E) It explains the mechanisms by which collusion between manufacturers and suppliers is accomplished.
- 3. It can be inferred from the passage that the author believes which one of the following about craft unions?
- (A) Craft unions have been successful in ensuring that the wages of their members remain higher than the wages of nonunion workers in the same occupational groups.
- (B) The number of minority workers joining craft unions has increased sharply in states that have not adopted right-to-work legislation.
- (C) Wages for workers belonging to craft unions have generally risen faster and more steadily than wages for workers belonging to industrial unions.
- (D) The wages of workers belonging to craft unions have not been significantly affected by right-to-work legislation, although the wages of workers belonging to industrial unions have been negatively affected.
- (E) The wages of workers belonging to craft unions are more likely to be driven up in the event of labor shortages than are the wages of workers belonging to industrial unions.
- 4. Which one of the following best describes the effect industrial unionism has had on the wages of Black workers relative to those of White workers, as that effect is presented in the passage?
- (A) Prior to 1947, industrial unionism had little effect on the wages of Black workers relative to those of White workers; since 1947, it has had a slight positive effect.
- (B) Prior to 1947, industrial unionism had a strong positive effect on the wages of Black workers relative to those of White workers; since 1947, it has had little effect.

- (C) Prior to 1947, industrial unionism had a negative effect on the wages of Black workers relative to those of White workers; since 1947, it has had a significant positive effect.
- (D) Industrial unionism has contributed moderately to an increase in the wage differential between Black workers and White workers.
- (E) Industrial unionism has contributed strongly to a 3 percent decrease in the wage differential between Black workers and White workers.
- 5. According to the passage, which one of the following could counteract the effects of a decrease in unions' economic power to raise wages in right-to-work states?
- (A) a decrease in the number of union shop agreements
- (B) strong economic growth that creates labor shortages
- (C) a decrease in membership in craft unions
- (D) the merging of large industrial unions
- (E) a decline in the craft sectors of the labor market
- 6. Which one of the following best describes the passage as a whole?
- (A) an overview of a problem in research methodology and a recommended solution to that problem
- (B) a comparison of two competing theories and a suggestion for reconciling them
- (C) a critique of certain legislation and a proposal for modification of that legislation
- (D) a review of research that challenges the conclusions of earlier researchers
- (E) a presentation of a specific case that confirms the findings of an earlier study

In recent years the early music movement, which advocates performing a work as it was performed at the time of its composition, has taken on the character of a crusade, particularly as it has moved beyond the sphere of medieval and baroque music and into music from the late eighteenth and early nineteenth centuries by composers such as Mozart and Beethoven. Granted, knowledge about the experience of playing old music on now-obsolete instruments has been of inestimable value to scholars. Nevertheless, the early music approach to performance raises profound and troubling questions.

Early music advocates assume that composers write only for the instruments available to them, but evidence suggests that composers of Beethoven's stature imagined extraordinarily high and low notes as part of their compositions, even when they recognized that such notes could not be played on instruments available at the time. In the score of Beethoven's first piano concerto, there is a "wrong" note, a high F-natural where the melody obviously calls for a high F-sharp, but pianos did not have this high an F-sharp when Beethoven composed the concerto. Because Beethoven once expressed a desire to revise his early works to exploit the extended range of pianos that became available to him some years later, it seems likely that he would have played the F-sharp if given the opportunity. To use a piano exactly contemporary with the work's composition would require playing a note that was probably frustrating for Beethoven himself to have had to play.

In addition,early music advocates often inadvertently divorce music and its performance from the life of which they were, and are,a part. The discovery that Haydn's and Mozart's symphonies were conducted during their lifetimes by a pianist who played the chords to keep the orchestra together has given rise to early music recordings in which a piano can be heard obtrusively in the foreground, despite evidence indicating that the orchestral piano was virtually inaudible to audiences at eighteenth-century concerts and was dropped as musically unnecessary when a better way to beat time was found. And although in the early nineteenth century the first three movements(sections) of Mozart's and Beethoven's symphonies were often played faster, and the last movement slower than today, this difference can readily be explained by the fact that at that time audiences applauded at the end of each movement, rather than withholding applause until the end of the entire work. As a result, musicians were not forced into extra brilliance in the finale in order to generate applause, as they are now. To restore the original tempo of these symphonies represents an irrational denial of the fact that our concepts of musical intensity and excitement have quite simply, changed.

- 1. It can be inferred from the passage that by "a piano exactly contemporary" with the composition of Beethoven's first piano concerto, the author means the kind of piano that was
- (A) Designed to be inaudible to the audience when used by conductors of orchestras.
- (B) Incapable of playing the high F-natural that is in the score of Beethoven's original version of the concerto.
- (C) Unavailable to Mozart and Haydn.
- (D) Incapable of playing the high F-sharp that the melody of the concerto calls for.
- (E) Influential in Beethoven's decision to revise his early compositions.

- 2. Which one of the following best expresses the main idea of the passage?
- (A) The early music movement has yet to resolve a number of troubling questions regarding its approach to the performance of music.
- (B) The early music movement, while largely successful inits approach to the performance of medieval and baroque music, has yet to justify its use of obsolete instruments in the performance of music by Beethoven and Mozart.
- (C) The early music approach to performance often assumes that composers write music that is perfectly tailored to the limitations of their struments on which it will be performed during their lifetimes.
- (D) Although advocates of early music know much about the instruments used to perform music at the time it was composed, they lack information regarding how the style of such performances has changed since such music was written
- (E) The early music movement has not yet fully exploited the knowledge that it has gained from playing music on instruments available at the time such music was composed.
- 3. In the second paragraph, the author discusses Beethoven's first piano concerto primarily in order to
- (A) Illustrate how piano music began to change in response to the extended range of pianos that became available during Beethoven's lifetime.
- (B) Illustrate how Beethoven's work failed to anticipate the changes in the design of instruments that were about to be made during hislifetime.
- (C) Suggest that early music advocates commonly perform music using scores that do not reflect revisions made to the music years after it was originally composed.
- (D) Illustrate how composers like Beethoven sometimes composed music that called for notes that could not be played on instruments that were currently available.
- (E) Provide an example of a piano composition that is especially amenable to being played on piano available at the time the music was composed.
- 4. The author suggests that the final movements of symphonies by Mozart and Beethoven might be played more slowly by today's orchestras if which one of the following were to occur?
- (A) Orchestras were to use instruments no more advanced in design than those used by orchestras at the time Mozart and Beethoven composed their symphonies.
- (B) Audiences were to return to the custom of applauding at the end of each movement of a symphony.
- (C) Audiences were to reserve their most enthusiasticapplause for the most brilliantly played finales.
- (D) Conductors were to return to the practice of playing the chords on an orchestral piano to keep the orchestra together.
- (E) Conductors were to conduct the symphonies in the manner in which Beethoven and Mozart had conducted them.
- 5. Which one of the following best describes the organization of the last paragraph?
- (A) A generalization is made evidence undermining it is presented, and a conclusion rejecting it is then drawn.

- (B) A criticism is stated and then elaborated with two supporting examples.
- (C) An assumption is identified and then evidence undermining its validity is presented.
- (D) An assumption is identified and then evidence frequently provided in support of it is then critically evaluated.
- (E) Two specific cases are presented and then a conclusion regarding their significance is drawn.
- 6. It can be inferred from the passage that the author's explanation in lines "Beethoven's symphonies were often played faster, and the last movement slower, than today, this difference can readily be explained by the fact that at that time audiences applauded at the end of each movement, rather than withholding applause until the end of the entire work." would be most weakened if which one of the following were true?
- (A) Musicians who perform in modern orchestras generally receive more extensive training than did their nineteenth-century counterparts.
- (B) Breaks between the movements of symphonies performed during the early nineteenth century often lasted longer than they do today because nineteenth-century musicians needed to re-tune their instruments between each movement.
- (C) Early nineteenth-century orchestral musicians were generally as concerned with the audience's response to their music as are the musicians who perform today in modern orchestras.
- (D) Early nineteenth-century audience applauded only perfunctorily after the first three movements of symphonies and conventionally withheld their most enthusiastic applause until the final movement was completed.
- (E) Early nineteenth-century audiences were generally more knowledgeable about music than are their modern counterparts.
- 7. It can be inferred from the passage that the author would be most likely to agree with which one of the following assertions regarding the early music recordings mentioned in the third paragraph?
- (A) These recordings fail to recognize that the last movements of Haydn's and Mozart's symphonies were often played slower in the eighteenth century than they are played today.
- (B) These recordings betray the influence of baroque musical style on those early music advocates who have recently turned their attention to the music of Haydn and Mozart.
- (C) By making audible the sound of an orchestral piano that was inaudible in eighteenth century performances, these recordings attempt to achieve aesthetic integrity at the expense of historical authenticity.
- (D) By making audible the sound of an orchestral piano that was inaudible in eighteenth century performances, these recordings unwittingly create music that is unlike what eighteenth century audiences heard.
- (E) These recordings suggest that at least some advocates of early music recognize that concepts of musical intensity and excitement have changed since Haydn and Mozart composed their symphonies.
- 8. The author suggests that the modern audience's tendency to withhold applause until the end of a symphony's performance is primarily related to which one of the following?

- (A) The replacement of the orchestral piano as a method of keeping the orchestra together.
- (B) A gradual increase since the time of Mozart and Beethoven in audiences' expectations regarding the ability of orchestral musicians.
- (C) A change since the early nineteenth century in audiences' concepts of musical excitement and intensity.
- (D) A more sophisticated appreciation of the structural integrity of the symphony as a piece of music.
- (E) The tendency of orchestral musicians to employ their most brilliant effects in the early.

Although the United States steel industry faces widely publicized economic problems that have eroded its steel production capacity, not all branches of the industry have been equally affected. The steel industry is not monolithic: it includes integrated producers, minimills, and specialty-steel mills. The integrated producers start with iron ore and coal and produce a wide assortment of shaped steels. The minimills reprocess scrap steel into a limited range of low-quality products, such as reinforcing rods for concrete. The specialty-steel mills are similar to minimills in that they tend to be smaller than the integrated producers and are based on scrap, but they manufacture much more expensive products than minimills do and commonly have an active in-house research-and-development effort.

Both minimills and specialty-steel mills have succeeded in avoiding the worst of the economic difficulties that are afflicting integrated steel producers, and some of the mills are quite profitable. Both take advantage of new technology for refining and casting steel, such as continuous casting, as soon as it becomes available. The minimills concentrate on producing a narrow range of products for sale in their immediate geographic area, whereas specialty-steel mills preserve flexibility in their operations in order to fulfill a customer's particular specifications.

Among the factors that constrain the competitiveness of integrated producers are excessive labor, energy, and capital costs, as well as manufacturing inflexibility. Their equipment is old and less automated, and does not incorporate many of the latest refinement in steelmaking technology. (For example, only about half of the United States integrated producers have continuous casters, which combine pouring and rolling into one operation and thus save the cost of separate rolling equipment.) One might conclude that the older labor-intensive machinery still operating in United States integrated plants is at fault for the poor performance of the United States industry, but this cannot explain why Japanese integrated producers, who produce a higher-quality product using less energy and labor, are also experiencing economic trouble. The fact is that the common technological denominator of integrated producers is an inherently inefficient process that is still rooted in the nineteenth century.

Integrated producers have been unable to compete successfully with minimills because the minimills, like specialty-steel mills, have dispensed almost entirely with the archaic energy and capital-intensive front end of integrated steelmaking: the iron-smelting process, including the mining and preparation of the raw materials and the blast-furnace operation. In addition, minimills have found a profitable way to market steel products: as indicated above, they sell their finished products locally, thereby reducing transportation costs, and concentrate on a limited range of shapes and sizes within a narrow group of products that can be manufactured economically. For these reasons, minimills have been able to avoid the economic decline affecting integrated steel producers.

- 1. Which one of the following best expresses the main idea of the passage?
- (A) United States steel producers face economic problems that are shared by producers in other nations.
- (B) Minimills are the most successful steel producers because they best meet market demands

for cheap steel.

- (C) Minimills and specialty-steel mills are more economically competitive than integrated producers because they use new technology and avoid the costs of the iron-smelting process.
- (D) United States steel producers are experiencing an economic decline that can be traced back to the nineteenth century.
- (E) New steelmaking technologies such as continuous casting will replace blast-furnace operations to reverse the decline in United States steel production.
- 2. The author mentions all of the following as features of minimills EXCEPT
- (A) flexibility in their operations
- (B) local sale of their products
- (C) avoidance of mining operations
- (D) use of new steel-refining technology
- (E) a limited range of low-quality products
- 3. The author of the passage refers to "Japanese integrated producers" primarily in order to support the view that
- (A) different economic difficulties face the steel industries of different nations
- (B) not all integrated producers share a common technological denominator
- (C) labor-intensive machinery cannot be blamed for the economic condition of United States integrated steel producers
- (D) modern steelmaking technology is generally labor-and energy-efficient
- (E) labor-intensive machinery is an economic burden on United States integrated steel producers
- 4. Which one of the following best describes the organization of the third paragraph?
- (A) A hypothesis is proposed and supported; then an opposing view is presented and criticized.
- (B) A debate is described and illustrated: then a contrast is made and the debate is resolved.
- (C) A dilemma is described and cited as evidence for a broader criticism.
- (D) A proposition is stated and argued, then rejected in favor of a more general statement, which is supported with additional evidence.
- (E) General statements are made and details given; then an explanation is proposed and rejected, and an alternative is offered.
- 5. It can be inferred from the passage that United States specialty-steel mills generally differ from integrated steel producers in that the specialty-steel mills
- (A) sell products in a restricted geographical area
- (B) share the economic troubles of the minimills
- (C) resemble specialty-steel mills found in Japan
- (D) concentrate on producing a narrow range of products
- (E) do not operate blast furnaces
- 6. Each of the following describes an industry facing a problem also experienced by United Stated integrated steel producers EXCEPT

- (A) a paper-manufacturing company that experiences difficulty in obtaining enough timber and other raw materials to meet its orders
- (B) a food-canning plant whose canning machines must constantly be tended by human operators
- (C) a textile firm that spends heavily on capital equipment and energy to process raw cotton before it is turned into fabric
- (D) a window-glass manufacturer that is unable to produce quickly different varieties of glass with special features required by certain customers
- (E) a leather-goods company whose hand-operated cutting and stitching machines were manufactured in Italy in the 1920s
- 7. Which one of the following, if true, would best serve as supporting evidence for the author's explanation of the economic condition of integrated steel producers?
- (A) Those nations that derive a larger percentage of their annual steel production from minimils than the United States does also have a smaller per capita trade deficit.
- (B) Many integrated steel producers are as adept as the specialty-steel mills at producing high-quality products to meet customer specifications.
- (C) Integrated steel producers in the United States are rapidly adopting the production methods of Japanese integrated producers.
- (D) Integrated steel producers in the United States are now attempting to develop a worldwide market by advertising heavily.
- (E) Those nations in which iron-smelting operations are carried out independently of steel production must heavily subsidize those operations in order to make them profitable.

After thirty years of investigation into cell genetics, researchers made startling discoveries in the 1960s and early 1970s which culminated in the development of processes, collectively known as recombinant deoxyribonucleic acid (rDNA) technology, for the active manipulation of a cell's genetic code. The technology has created excitement and controversy because it involves altering DNA—which contains the building blocks of the genetic code.

Using rDNA technology, scientists can transfer a portion of the DNA from one organism to a single living cell of another. The scientist chemically "snips" the DNA chain of the host cell at a predetermined point and attaches another piece of DNA from a donor cell at that place, creating a completely new organism.

Proponents of rDNA research and development claim that it will allow scientists to find cures for disease and to better understand how genetic information controls an organism's development. They also see many other potentially practical benefits, especially in the pharmaceutical industry. Some corporations employing the new technology even claim that by the end of the century all major diseases will be treated with drugs derived from microorganisms created through rDNA technology. Pharmaceutical products already developed, but not yet marketed, indicate that these predictions may be realized.

Proponents also cite nonmedical applications for this technology. Energy production and waste disposal may benefit: genetically altered organisms could convert sewage and other organic material into methane fuel. Agriculture might also take advantage of rDNA technology to produce new varieties of crops that resist foul weather, pests, and the effects of poor soil.

A major concern of the critics of rDNA research is that genetically altered microorganisms might escape from the laboratory. Because these microorganisms are laboratory creations that, in all probability, do not occur in nature, their interaction with the natural world cannot be predicted with certainty. It is possible that they could cause previously unknown, perhaps incurable diseases. The effect of genetically altered microorganisms on the world's microbiological predator-prey relationships is another potentially serious problem pointed out by the opponents of rDNA research. Introducing a new species may disrupt or even destroy the existing ecosystem. The collapse of interdependent relationships among species, extrapolated to its extreme, could eventually result in the destruction of humanity.

Opponents of rDNA technology also cite ethical problems with it. For example, it gives scientists the power to instantly cross evolutionary and species boundaries that nature took millennia to establish. The implications of such power would become particularly profound if genetic engineers were to tinker with human genes, a practice that would bring us one step closer to Aldous Huxley's grim vision in Brave New World of a totalitarian society that engineers human beings to fulfill specific roles.

- 1. In the passage, the author is primarily concerned with doing which one of the following?
- (A) explaining the process and applications of rDNA technology
- (B) advocating continued rDNA research and development
- (C) providing evidence indicating the need for regulation of rDNA research and development
- (D) summarizing the controversy surrounding rDNA research and development

- (E) arguing that the environmental risks of rDNA technology may outweigh its medical benefits
- 2. According to the passage, which one of the following is an accurate statement about research into the genetic code of cells?
- (A) It led to the development of processes for the manipulation of DNA.
- (B) It was initiated by the discovery of rDNA technology.
- (C) It led to the use of new treatments for major diseases.
- (D) It was universally heralded as a great benefit to humanity.
- (E) It was motivated by a desire to create new organisms.
- 3. The potential benefits of rDNA technology referred to in the passage include all of the following EXCEPT
- (A) new methods of waste treatment
- (B) new biological knowledge
- (C) enhanced food production
- (D) development of less expensive drugs
- (E) increased energy production
- 4. Which one of the following, if true, would most weaken an argument of opponents of rDNA technology?
- (A) New safety procedures developed by rDNA researchers make it impossible for genetically altered microorganisms to escape from laboratories.
- (B) A genetically altered microorganism accidentally released from a laboratory is successfully contained.
- (C) A particular rDNA-engineered microorganism introduced into an ecosystem attracts predators that keep its population down.
- (D) Genetically altered organisms designed to process sewage into methane cannot survive outside the waste treatment plant.
- (E) A specific hereditary disease that has plagued humankind for generations is successfully eradicated.
- 5. The author's reference in the last sentence of the passage to a society that engineers human beings to fulfill specific roles serves to
- (A) emphasize the potential medical dangers of rDNA technology
- (B) advocate research on the use of rDNA technology in human genetics
- (C) warn of the possible disasters that could result from upsetting the balance of nature
- (D) present Brave New World as an example of a work of fiction that accurately predicted technological developments
- (E) illustrate the sociopolitical ramifications of applying genetic engineering to humans
- 6. Which one of the following, if true, would most strengthen an argument of the opponents of rDNA technology?
- (A) Agricultural products developed through rDNA technology are no more attractive to consumers than are traditional crops.
- (B) Genetically altered microorganisms have no natural predators but can prey on a wide

variety of other microorganisms.

- (C) Drugs produced using rDNA technology cost more to manufacture than drugs produced with traditional technologies.
- (D) Ecosystems are impermanent systems that are often liable to collapse, and occasionally do so.
- (E) Genetically altered microorganisms generally cannot survive for more than a few hours in the natural environment.

Gray marketing, the selling of trademarked products through channels of distribution not authorized by the trademark holder, can involve distribution of goods either within a market region or across market boundaries. Gray marketing within a market region ("channel flow diversion") occurs when manufacturer-authorized distributors sell trademarked goods to unauthorized distributors who then sell the goods to consumers within the same region. For example, quantity discounts from manufacturers may motivate authorized dealers to enter the gray market because they can purchase larger quantities of a product than they themselves intend to stock if they can sell the extra units through gray market channels.

When gray marketing occurs across market boundaries, it is typically in an international setting and may be called "parallel importing." Manufacturers often produce and sell products in more than one country and establish a network of authorized dealers in each country. Parallel importing occurs when trademarked goods intended for one country are diverted from proper channels (channel flow diversion) and then exported to unauthorized distributors in another country.

Trademark owners justifiably argue against gray marketing practices since such practices clearly jeopardize the goodwill established by trademark owners: consumers who purchase trademarked goods in the gray market do not get the same "extended product," which typically includes pre-and postsale service. Equally important, authorized distributors may cease to promote the product if it becomes available for much lower prices through unauthorized channels.

Current debate over regulation of gray marketing focuses on three disparate theories in trademark law that have been variously and confusingly applied to parallel importation cases: universality, exhaustion, and territoriality. The theory of universality holds that a trademark is only an indication of the source or origin of the product. This theory does not recognize the goodwill functions of a trademark. When the courts apply this theory, gray marketing practices are allowed to continue because the origin of the product remains the same regardless of the specific route of the product through the channel of distribution. The exhaustion theory holds that a trademark owner relinquishes all rights once a product has been sold. When this theory is applied, gray marketing practices are allowed to continue because the trademark owners' rights cease as soon as their products are sold to a distributor. The theory of territoriality holds that a trademark is effective in the country in which it is registered. Under the theory of territoriality, trademark owners can stop gray marketing practices in the registering countries on products bearing their trademarks. Since only the territoriality theory affords trademark owners any real legal protection against gray marketing practices, I believe it is inevitable as well as desirable that it will come to be consistently applied in gray marketing cases.

- 1. Which one of the following best expresses the main point of the passage?
- (A) Gray marketing is unfair to trademark owners and should be legally controlled.
- (B) Gray marketing is practiced in many different forms and places, and legislators should recognize the futility of trying to regulate it.
- (C) The mechanisms used to control gray marketing across markets are different from those

most effective in controlling gray marketing within markets.

- (D) The three trademark law theories that have been applied in gray marketing cases lead to different case outcomes.
- (E) Current theories used to interpret trademark laws have resulted in increased gray marketing activity.
- 2. The function of the passage as a whole is to
- (A) criticize the motives and methods of those who practice gray marketing
- (B) evaluate the effects of both channel flow diversion and parallel importation
- (C) discuss the methods that have been used to regulate gray marketing and evaluate such methods' degrees of success
- (D) describe a controversial marketing practice and evaluate several legal views regarding it
- (E) discuss situations in which certain marketing practices are common and analyze the economic factors responsible for their development
- 3. Which one of the following does the author offer as an argument against gray marketing?
- (A) Manufacturers find it difficult to monitor the effectiveness of promotional efforts made on behalf of products that are gray marketed.
- (B) Gray marketing can discourage product promotion by authorized distributors.
- (C) Gray marketing forces manufacturers to accept the low profit margins that result from quantity discounting.
- (D) Gray marketing discourages competition among unauthorized dealers.
- (E) Quality standards in the manufacture of products likely to be gray marketed may decline.
- 4. The information in the passage suggests that proponents of the theory of territoriality would probably differ from proponents of the theory of exhaustion on which one of the following issues?
- (A) the right of trademark owners to enforce, in countries in which the trademarks are registered, distribution agreements intended to restrict distribution to authorized channels
- (B) the right of trademark owners to sell trademarked goods only to those distributors who agree to abide by distribution agreements
- (C) the legality of channel flow diversion that occurs in a country other than the one in which a trademark is registered
- (D) the significance consumers attach to a trademark
- (E) the usefulness of trademarks as marketing tools
- 5. The author discusses the impact of gray marketing on goodwill in order to
- (A) fault trademark owners for their unwillingness to offer a solution to a major consumer complaint against gray marketing
- (B) indicate a way in which manufacturers sustain damage against which they ought to be protected
- (C) highlight one way in which gray marketing across markets is more problematic than gray marketing within a market
- (D) demonstrate that gray marketing does not always benefit the interests of unauthorized distributors

- (E) argue that consumers are unwilling to accept a reduction in price in exchange for elimination of service
- 6. The author's attitude toward the possibility that the courts will come to exercise consistent control over gray marketing practices can best be characterized as one of
- (A) resigned tolerance
- (B) utter dismay
- (C) reasoned optimism
- (D) unbridled fervor
- (E) cynical indifference
- 7. It can be inferred from the passage that some channel flow diversion might be eliminated if
- (A) profit margins on authorized distribution of goods were less than those on goods marketed through parallel importing
- (B) manufacturers relieved authorized channels of all responsibility for product promotion
- (C) manufacturers charged all authorized distributors the same unit price for products regardless of quantity purchased
- (D) the postsale service policies of authorized channels were controlled by manufacturers
- (E) manufacturers refused to provide the "extended product" to consumers who purchase goods in the gray market

A conventional view of nineteenth-century Britain holds that iron manufacturers and textile manufacturers from the north of England became the wealthiest and most powerful people in society after about 1832. According to Marxist historians, these industrialists were the target of the working class in its struggle for power. A new study by Rubinstein, however, suggests that the real wealth lay with the bankers and merchants of London. Rubinstein does not deny that a northern industrial elite existed but argues that it was consistently outnumbered and outdone by a London-based commercial elite. His claims are provocative and deserve consideration.

Rubinstein's claim about the location of wealth comes from his investigation of probate records. These indicate the value of personal property, excluding real property (buildings and land), left by individuals at death. It does seem as if large fortunes were more frequently made in commerce than in industry and, within industry, more frequently from alcohol or tobacco than from textiles or metal. However, such records do not unequivocally make Rubinstein's case. Uncertainties abound about how the probate rules for valuing assets were actually applied. Mills and factories, being real property, were clearly excluded: machinery may also have been, for the same reason. What the valuation conventions were for stock-intrade (goods for sale) is also uncertain. It is possible that their probate values were much lower than their actual market value: cash or near-cash, such as bank balances or stocks, were, on the other hand, invariably considered at full face value. A further complication is that probate valuations probably took no notice of a business's goodwill (favor with the public) which, since it represents expectations about future profit-making, would today very often be a large fraction of market value. Whether factors like these introduced systematic biases into the probate valuations of individuals with different types of businesses would be worth investigating.

The orthodox view that the wealthiest individuals were the most powerful is also questioned by Rubinstein's study. The problem for this orthodox view is that Rubinstein finds many millionaires who are totally unknown to nineteenth-century historians: the reason for their obscurity could be that they were not powerful. Indeed, Rubinstein dismisses any notion that great wealth had anything to do with entry into the governing elite, as represented by bishops, higher civil servants, and chairmen of manufacturing companies. The only requirements were university attendance and a father with a middle-class income.

Rubinstein, in another study, has begun to buttress his findings about the location of wealth by analyzing income tax returns, which reveal a geographical distribution of middle-class incomes similar to that of wealthy incomes revealed by probate records. But until further confirmatory investigation is done, his claims can only be considered partially convincing.

- 1. The main idea of the passage is that
- (A) the Marxist interpretation of the relationship between class and power in nineteenth-century Britain is no longer viable
- (B) a simple equation between wealth and power is unlikely to be supported by new data from nineteenth-century British archives
- (C) a recent historical investigation has challenged but not disproved the orthodox view of

the distribution of wealth and the relationship of wealth to power in nineteenth-century Britain

- (D) probate records provide the historian with a revealing but incomplete glimpse of the extent and location of wealth in nineteenth-century Britain
- (E) an attempt has been made to confirm the findings of a new historical study of nineteenth-century Britain, but complete confirmation is likely to remain elusive
- 2. The author of the passage implies that probate records as a source of information about wealth in nineteenth-century Britain are
- (A) self-contradictory and misleading
- (B) ambiguous and outdated
- (C) controversial but readily available
- (D) revealing but difficult to interpret
- (E) widely used by historians but fully understandable only by specialists
- 3. The author suggests that the total probate valuations of the personal property of individuals holding goods for sale in nineteenth-century Britain may have been
- (A) affected by the valuation conventions for such goods
- (B) less accurate than the valuations for such goods provided by income tax returns
- (C) less, on average, if such goods were tobacco-related than if they were alcohol-related
- (D) greater, on average, than the total probate valuations of those individuals who held bank balances
- (E) dependent on whether such goods were held by industrialists or by merchants or bankers
- 4. According to the passage, Rubinstein has provided evidence that challenges which one of the following claims about nineteenth-century Britain?
- (A) The distribution of great wealth between commerce and industry was not equal.
- (B) Large incomes were typically made in alcohol and tobacco rather than in textiles and metal.
- (C) A London-based commercial elite can be identified.
- (D) An official governing elite can be identified.
- (E) There was a necessary relationship between great wealth and power.
- 5. The author mentions that goodwill was probably excluded from the probate valuation of a business in nineteenth-century Britain most likely in order to
- (A) give an example of a business asset about which little was known in the nineteenth century
- (B) suggest that the probate valuations of certain businesses may have been significant underestimations of their true market value
- (C) make the point that this exclusion probably had an equal impact on the probate valuations of all nineteenth-century British businesses
- (D) indicate that expectations about future profit-making is the single most important factor in determining the market value of certain businesses
- (E) argue that the twentieth-century method of determining probate valuations of a business may be consistently superior to the nineteenth-century method
- 6. Which one of the following studies would provide support for Rubinstein's claims?

- (A) a study that indicated that many members of the commercial elite in nineteenth-century London had insignificant holdings of real property
- (B) a study that indicated that in the nineteenth century, industrialists from the north of England were in fact a target for working-class people
- (C) a study that indicated that, in nineteenth-century Britain, probate values of goods for sale were not as high as probate values of cash assets
- (D) a study that indicated that the wealth of nineteenth-century British industrialists did not appear to be significantly greater when the full value of their real property holdings was actually considered
- (E) a study that indicated that at least some members of the official governing elite in nineteenth-century Britain owned more real property than had previously been thought to be the case
- 7. Which one of the following, if true, would cast the most doubt on Rubinstein's argument concerning wealth and the official governing elite in nineteenth-century Britain?
- (A) Entry into this elite was more dependent on university attendance than on religious background.
- (B) Attendance at a prestigious university was probably more crucial than a certain minimum family income in gaining entry into this elite.
- (C) Bishops as a group were somewhat wealthier, at the point of entry into this elite, than were higher civil servants or chairmen of manufacturing companies.
- (D) The families of many members of this elite owned few, if any, shares in iron industries and textile industries in the north of England.
- (E) The composition of this elite included vice-chancellors, many of whom held office because of their wealth.

During the 1940s and 1950s the United States government developed a new policy toward Native Americans, often known as "readjustment." Because the increased awareness of civil rights in these decades helped reinforce the belief that life on reservations prevented Native Americans from exercising the rights guaranteed to citizens under the United States Constitution, the readjustment movement advocated the end of the federal government's involvement in Native American affairs and encouraged the assimilation of Native Americans as individuals into mainstream society. However, the same years also saw the emergence of a Native American leadership and efforts to develop tribal instructions and reaffirm tribal identity. The clash of these two trends may be traced in the attempts on the part of the Bureau of Indian Affairs (BIA) to convince the Oneida tribe of Wisconsin to accept readjustment.

The culmination of BIA efforts to sway the Oneida occurred at a meeting that took place in the fall of 1956. The BIA suggested that it would be to the Oneida's benefit to own their own property and, like other homeowners, pay real estate taxes on it. The BIA also emphasized that, after readjustment, the government would not attempt to restrict Native Americans' ability to sell their individually owned lands. The Oneida were then offered a one-time lump-sum payment of \$60,000 in lieu of the \$0.52 annuity guaranteed in perpetuity to each member of the tribe under the Canandaigua Treaty.

The efforts of the BIA to "sell" readjustment to the tribe failed because the Oneida realized that they had heard similar offers before. The Oneida delegates reacted negatively to the BIA's first suggestion because taxation of Native American lands had been one past vehicle for dispossessing the Oneida: after the distribution of some tribal lands to individual Native Americans in the late nineteenth century, Native American lands became subject to taxation, resulting in new and impossible financial burdens, foreclosures, and subsequent tax sales of property. The Oneida delegates were equally suspicious of the BIA's emphasis on the rights of individual landowners, since in the late nineteenth century many individual Native Americans had been convinced by unscrupulous speculators to sell their lands. Finally, the offer of a lump-sum payment was unanimously opposed by the Oneida delegates, who saw that changing the terms of a treaty might jeopardize the many pending land claims based upon the treaty.

As a result of the 1956 meeting, the Oneida rejected readjustment. Instead, they determined to improve tribal life by lobbying for federal monies for postsecondary education, for the improvement of drainage on tribal lands, and for the building of a convalescent home for tribal members. Thus, by learning the lessons of history, the Oneida were able to survive as a tribe in their homeland.

- 1. Which one of the following would be most consistent with the policy of readjustment described in the passage?
- (A) the establishment among Native Americans of a tribal system of a elected government
- (B) the creation of a national project to preserve Native American language and oral history
- (C) the establishment of programs to encourage Native Americans to move from reservations to urban areas

- (D) the development of a large-scale effort to restore Native American lands to their original tribes
- (E) the reaffirmation of federal treaty obligations to Native American tribes
- 2. According to the passage, after the 1956 meeting the Oneida resolved to
- (A) obtain improved social services and living conditions for members of the tribe
- (B) pursue litigation designed to reclaim tribal lands
- (C) secure recognition of their unique status as a self-governing Native American nation within the United States
- (D) establish new kinds of tribal institutions
- (E) cultivate a life-style similar to that of other United States citizens
- 3. Which one of the following best describes the function of the first paragraph in the context of the passage as a whole?
- (A) It summarizes the basis of a conflict underlying negotiations described elsewhere in the passage.
- (B) It presents two positions, one of which is defended by evidence provided in succeeding paragraphs.
- (C) It compares competing interpretations of a historical conflict.
- (D) It analyzes the causes of a specific historical event and predicts a future development.
- (E) It outlines the history of a government agency.
- 4. The author refers to the increased awareness of civil rights during the 1940s and 1950s most probably in order to
- (A) contrast the readjustment movement with other social phenomena
- (B) account for the stance of the Native American leadership
- (C) help explain the impetus for the readjustment movement
- (D) explain the motives of BIA bureaucrats
- (E) foster support for the policy of readjustment
- 5. The passage suggests that advocates of readjustment would most likely agree with which one of the following statements regarding the relationship between the federal government and Native Americans?
- (A) The federal government should work with individual Native Americans to improve life on reservations.
- (B) The federal government should be no more involved in the affaires of Native Americans than in the affairs of other citizens.
- (C) The federal government should assume more responsibility for providing social services to Native Americans.
- (D) The federal government should share its responsibility for maintaining Native American territories with tribal leaders.
- (E) The federal government should observe all provisions of treaties made in the past with Native Americans.
- 6. The passage suggests that the Oneida delegates viewed the Canandaigua Treaty as

- (A) a valuable safeguard of certain Oneida rights and privileges
- (B) the source of many past problems for the Oneida tribe
- (C) a model for the type of agreement they hoped to reach with the federal government
- (D) an important step toward recognition of their status as an independent Native American nation
- (E) an obsolete agreement without relevance for their current condition
- 7. Which one of the following situations most closely parallels that of the Oneida delegates in refusing to accept a lump-sum payment of \$60,000?
- (A) A university offers s a student a four-year scholarship with the stipulation that the student not accept any outside employment; the student refuses the offer and attends a different school because the amount of the scholarship would not have covered living expenses.
- (B) A company seeking to reduce its payroll obligations offers an employee a large bonus if he will accept early retirement; the employee refuses because he does not want to compromise an outstanding worker's compensation suit.
- (C) Parents of a teenager offer to pay her at the end of the month for performing weekly chores rather than paying her on a weekly basis; the teenager refuses because she has a number of financial obligations that she must meet early in the month.
- (D) A car dealer offers a customer a \$500 cash payment for buying a new car; the customer refuses because she does not want to pay taxes on the amount, and requests instead that her monthly payments be reduced by a proportionate amount.
- (E) A landlord offers a tenant several months rent-free in exchange for the tenant's agreeing not to demand that her apartment be painted every two years, as is required by the lease; the tenant refuses because she would have to spend her own time painting the apartment.

Direct observation of contemporary societies at the threshold of widespread literacy has not assisted our understanding of how such literacy altered ancient Greek society, in particular its political culture. The discovery of what Goody has called the enabling effects of literacy in contemporary societies tends to seduce the observer into confusing often rudimentary knowledge of how to read with popular access to important books and documents: this confusion is then projected onto ancient societies. In ancient Greece, Goody writes, alphabetic reading and writing was important for the development of political democracy.

An examination of the ancient Greek city Athens exemplifies how this sort of confusion is detrimental to understanding ancient politics. In Athens, the early development of a written law code was retrospectively mythologized as the critical factor in breaking the power monopoly of the old aristocracy: hence the Greek tradition of the law-giver, which has captured the imaginations of scholars like Goody. But the application and efficacy of all law codes depend on their interpretation by magistrates and courts, and unless the right of interpretation is democratized, the mere existence of written laws changes little.

In fact, never in antiquity did any but the elite consult documents and books. Even in Greek courts the juries heard only the relevant statutes read outduring the proceedings, as they heard verbal testimony, and they then rendered their verdict on the spot, without the benefit of any discussion among themselves. True, in Athens the juries were representative of a broad spectrum of the population, and these juries, drawn from diverse social classes, both interpreted what they had heard and determined matters of fact. However, they guided solely by the speeches prepared for the parties by professional pleaders and by the quotations of laws or decrees within the speeches, rather than by their own access to any kind of document or book.

Granted, people today also rely heavily on a truly knowledgeable minority for information and its interpretation, often transmitted orally. Yet this is still fundamentally different from an ancient society in which there was no popular literature, i.e., no newspapers, magazines, or other media that dealt with sociopolitical issues. An ancient law code would have been analogous to the Latin Bible, a venerated document but a closed book. The resistance of the medieval Church to vernacular translations of the Bible, in the West at least, is therefore a pointer to the realities of ancient literacy. When fundamental documents are accessible for study only to an elite, the rest of the society is subject to the elites interpretation of the rules of behavior, including right political behavior. Athens, insofar as it functioned as a democracy, did so not because of widespread literacy, but because the elite had chosen to accept democratic institutions.

- 1. Which one of the following statements best expresses the main idea of the passage?
- (A) Democratic political institutions grow organically from the traditions and conventions of a society.
- (B) Democratic political institutions are not necessarily the outcome of literacy in a society.
- (C) Religious authority, like political authority, can determine who in a given society will have access to important books and documents.
- (D) Those who are best educated are most often those who control the institutions of

authority in a society.

- (E) Those in authority have a vested interest in ensuring that those under their control remain illiterate.
- 2. It can be inferred from the passage that the author assumes which one of the following about societies in which the people possess a rudimentary reading ability?
- (A) They are more politically advanced than societies without rudimentary reading ability.
- (B) They are unlikely to exhibit the positive effects of literacy.
- (C) They are rapidly evolving toward widespread literacy.
- (D) Many of their people might not have access to important documents and books.
- (E) Most of their people would not participate in political decision-making.
- 3. The author refers to the truly knowledgeable minority in contemporary societies in the context of the fourth paragraph in order to imply which one of the following?
- (A) Because they have a popular literature that closes the gap between the elite and the majority, contemporary societies rely far less on the knowledge of experts than did ancient societies.
- (B) Contemporary societies rely on the knowledge of experts, as did ancient societies, because contemporary popular literature so frequently conveys specious information.
- (C) Although contemporary societies rely heavily on the knowledge of experts, access to popular literature makes contemporary societies less dependent on experts for information about rules of behavior than were ancient societies.
- (D) While only some members of the elite can become experts, popular literature gives the majority in contemporary society an opportunity to become members of such an elite.
- (E) Access to popular literature distinguishes ancient from contemporary societies because it relies on a level of educational achievement attainable only be a contemporary elite.
- 4. According to the passage, each of the following statements concerning ancient Greek juries is true EXCEPT:
- (A) They were somewhat democratic insofar as they were composed largely of people from the lowest social classes.
- (B) They were exposed to the law only insofar as they heard relevant statutes read out during legal proceedings.
- (C) They ascertained the facts of a case and interpreted the laws.
- (D) They did not have direct access to important books and documents that were available to the elite.
- (E) They rendered verdicts without benefit of private discussion among themselves.
- 5. The author characterizes the Greek tradition of the law-giver as an effect mythologizing most probably in order to
- (A) illustrate the ancient Greek tendency to memorialize historical events by transforming them into myths
- (B) convey the historical importance of the development of the early Athenian written law code
- (C) convey the high regard in which the Athenians held their legal tradition
- (D) suggest that the development of a written law code was not primarily responsible for

diminishing the power of the Athenian aristocracy

- (E) suggest that the Greek tradition of the law-giver should be understood in the larger context of Greek mythology
- 6. The author draws an analogy between the Latin Bible and an early law code in order to make which one of the following points?
- (A) Documents were considered authoritative in premodern society in proportion to their inaccessibility to the majority.
- (B) Documents that were perceived as highly influential in premodern societies were not necessarily accessible to the societys majority.
- (C) What is most revered in a nondemocratic society is what is most frequently misunderstood.
- (D) Political documents in premodern societies exerted a social influence similar to that exerted by religious documents.
- (E) Political documents in premodern societies were inaccessible to the majority of the population because of the language in which they were written.
- 7. The primary purpose of the passage is to
- (A) argue that a particular method of observing contemporary societies is inconsistent
- (B) point out the weaknesses in a particular approach to understanding ancient societies
- (C) present the disadvantages of a particular approach to understanding the relationship between ancient and contemporary societies
- (D) examine the importance of developing an appropriate method for understanding ancient societies
- (E) convey the difficulty of accurately understanding attitudes in ancient societies

The English who in the seventeenth and eighteenth centuries inhabited those colonies that would later become the United States shared a common political vocabulary with the English in England. Steeped as they were in the English political language, these colonials failed to observe that their experience in America had given the words a significance quite different from that accepted by the English with whom they debated; in fact, they claimed that they were more loyal to the English political tradition than were the English in England.

In many respects the political institutions of England were reproduced in these American colonies. By the middle of eighteenth century, all of these colonies except four were headed by Royal Governors appointed by the King and perceived as bearing a relation to the people of the colony similar to that of the King to the English people. Moreover, each of these colonies enjoyed a representative assembly, which was consciously modeled, in powers and practices, after the English Parliament. In both England and these colonies, only property holders could vote.

Nevertheless, though English and colonial institutions were structurally similar, attitudes toward those institutions differed. For example, English legal development from the early seventeenth century had been moving steadily toward the absolute power of Parliament. The most unmistakable sign of this tendency was the legal assertion that the King was subject to the law. Together with this resolute denial of the absolute right of kings went the assertion that Parliament was unlimited in its power: it could change even the Constitution by its ordinary acts of legislation. By the eighteenth century the English had accepted the idea that the parliamentary representatives of the people were omnipotent.

The citizens of these colonies did not look upon the English Parliament with such fond eyes, nor did they concede that their own assemblies possessed such wide powers. There were good historical reasons for this. To the English the word "constitution" meant the whole body of law and legal custom formulated since the beginning of the kingdom, whereas to these colonials a constitution was a specific written document, enumerating specific powers. This distinction in meaning can be traced to the fact that the foundations of government in the various colonies were written charters granted by the Crown. These express authorizations to govern were tangible, definite things. Over the years these colonial had often repaired to the charters to justify themselves in the struggle against tyrannical governors or officials of the Crown. More than a century of government under written constitutions convinced these colonists of the necessity for and efficacy of protecting their liberties against governmental encroachment by explicitly defining all governmental powers in a document.

- 1. Which one of the following best expresses the main idea of the passage?
- (A) The colonials and the English mistakenly thought that they shared a common political vocabulary.
- (B) The colonials and the English shared a variety of institutions.
- (C) The colonials and the English had conflicting interpretations of the language and institutional structures that they shared.
- (D) Colonial attitudes toward English institutions grew increasingly hostile in the eighteenth century.

- (E) Seventeenth-century English legal development accounted for colonial attitudes toward constitutions.
- 2. The passage supports all of the following statements about the political conditions present by the middle of the eighteenth century in the American colonies discussed in the passage EXCEPT:
- (A) Colonials who did not own property could not vote.
- (B) All of these colonies had representative assemblies modeled after the British Parliament.
- (C) Some of these colonies had Royal Governors.
- (D) Royal Governors could be removed from office by colonial assemblies.
- (E) In these colonies, Royal Governors were regarded as serving a function like that of a king.
- 3. The passage implies which one of the following about English kings prior to the early seventeenth century?
- (A) They were the source of all law.
- (B) They frequently flouted laws made by Parliament.
- (C) Their power relative to that of Parliament was considerably greater than it was in the eighteenth century.
- (D) They were more often the sources of legal reform than they were in the eighteenth century.
- (E) They had to combat those who believed that the power of Parliament was absolute.
- 4. The author mentions which one of the following as evidence for the eighteenth-century English attitude toward Parliament?
- (A) The English had become uncomfortable with institutions that could claim absolute authority.
- (B) The English realized that their interests were better guarded by Parliament than by the King.
- (C) The English allowed Parliament to make constitutional changes by legislative enactment.
- (D) The English felt that the King did not possess the knowledge that could enable him to rule responsibly.
- (E) The English had decided that it was time to reform their representative government.
- 5. The passage implies that the colonials discussed in the passage would have considered which one of the following to be a source of their debates with England?
- (A) their changed use of the English political vocabulary
- (B) English commitment to parliamentary representation
- (C) their uniquely English experience
- (D) their refusal to adopt any English political institutions
- (E) their greater loyalty to the English political traditions
- 6. According to the passage, the English attitude toward the English Constitution differed from the colonial attitude toward constitutions in that the English regarded their Constitution as
- (A) the legal foundation of the kingdom
- (B) a document containing a collection of customs

- (C) a cumulative corpus of legislation and legal traditions
- (D) a record alterable by royal authority
- (E) an unchangeable body of governmental powers
- 7. The primary purpose of the passage is to
- (A) expose the misunderstanding that has characterized descriptions of the relationship between seventeenth and eighteenth-century England and certain of its American colonies
- (B) suggest a reason for England's treatment of certain of its American colonies in the seventeenth and eighteenth centuries
- (C) settle an ongoing debate about the relationship between England and certain of its American colonies in the seventeenth and eighteenth centuries
- (D) interpret the events leading up to the independence of certain of England's American colonies in the eighteenth century
- (E) explain an aspect of the relationship between England and certain of its American colonies in the seventeenth and eighteenth centuries

A #CAT Original #RC

At the heart of the enormous boom in wine consumption that has taken place in the English speaking world over the last two decades or so is a fascinating, happy paradox. In the days when wine was exclusively the preserve of a narrow cultural elite, bought either at auctions or from gentleman wine merchants in wing collars and bow-ties, to be stored in rambling cellars and decanted to order by one's butler, the ordinary drinker didn't get a look-in. Wine was considered a highly technical subject, in which anybody without the necessary ability could only fall flat on his or her face in embarrassment. It wasn't just that you needed a refined aesthetic sensibility for the stuff if it wasn't to be hopelessly wasted on you. It required an intimate knowledge of what came from where, and what it was supposed to taste like.

Those were times, however, when wine appreciation essentially meant a familiarity with the great French classics, with perhaps a smattering of other wines — like sherry and port. That was what the wine trade dealt in. These days, wine is bought daily in supermarkets and high-street chains to be consumed that evening, hardly anybody has a cellar to store it in and most don't even possess a decanter. Above all, the wines of literally dozens of countries are available in our market. When a supermarket offers its customers a couple of fruity little numbers from Brazil, we scarcely raise an eyebrow.

It seems, in other words, that the commercial jungle that wine has now become has not in the slightest deterred people from plunging adventurously into the thickets in order to taste and see. Consumers are no longer intimidated by the thought of needing to know their Pouilly-Fume from their Pouilly-Fuisse, just at the very moment when there is more to know than ever before.

The reason for this new mood of confidence is not hard to find. It is on every wine label from Australia, New Zealand, South Africa and the United States: the name of the grape from which the wine is made. At one time that might have sounded like a fairly technical approach in itself. Why should native English-speakers know what Cabernet Sauvignon or Chardonnay were? The answer lies in the popularity that wines made from those grape varieties now enjoy. Consumer effectively recognize them as brand names, and have acquired a basic lexicon of wine that can serve them even when confronted with those Brazilian upstarts.

In the wine heartlands of France, they are scared to death of that trend—not because they think their wine isn't as good as the best from California or South Australia (what French winemaker will ever admit that?) but because they don't traditionally call their wines Cabernet Sauvignon or Chardonnay. They call them Chateau Ducru Beaucaillou or Corton-Charlemagne, and they aren't about the change. Some areas, in the middle of southern France, have now produced a generation of growers using the varietal names on their labels and are tempting consumers back to French wine. It will be an uphill struggle, but there is probably no other way if France is to avoid simply becoming a specialty source of old-fashioned wines for old-fashioned connoisseurs.

Wine consumption was also given a significant boost in the early 1990s by the work of Dr. Serge Renaud, who has spent many years investigating the reasons for the uncannily low

incidence of coronary heart disease in the south of France. One of his major findings is that the fat-derived cholesterol that builds up in the arteries and can eventually lead to heart trouble, can be dispersed by the tannins in wine. Tannin is derived from the skins of grapes, and is therefore present in higher levels in red wines, because they have to be infused with their skins to attain the red colour. That news caused a huge upsurge in red wine consumption in the United States. It has not been accorded the prominence it deserves in the UK, largely because the medical profession still sees all alcohol as a menace to health, and is constantly calling for it to be made prohibitively expensive. Certainly, the manufacturers of anticoagulant drugs might have something to lose if we all got the message that we would do just as well by our hearts by taking half a bottle of red wine every day!

- 1. The tone that the author uses while asking "what French winemaker will ever admit that?" is best described as
- a. caustic
- b. satirical
- c. critical
- d. hypocritical
- 2. What according to the author should the French do to avoid becoming a producer of merely old- fashioned wines?
- a. Follow the labeling strategy of the English-speaking countries
- b. Give their wines English names
- c. Introduce fruity wines as Brazil has done
- d. Produce the wines that have become popular in the English-speaking world
- 3. The development which has created fear among winemakers in the wine heartland of France is the
- a. tendency not to name wines after the grape varieties that are used in the wines.
- b. 'education' that consumers have derived from wine labels from English speaking countries.
- c. new generation of local winegrowers who use labels that show names of grape varieties.
- d. ability of consumers to understand a wine's qualities when confronted with "Brazilian upstarts".
- 4. Which one of the following, if true, would provide most support for Dr. Renaud's findings about the effect of tannins?
- a. A survey showed that film celebrities based in France have a low incidence of coronary heart disease.
- b. Measurements carried out in southern France showed red wine drinkers had significantly higher levels of coronary heart incidence than white wine drinkers did.
- c. Data showed a positive association between sales of red wine and incidence of coronary heart disease.
- d. Long-term surveys in southern France showed that the incidence of coronary heart disease was significantly lower in red wine drinkers than in those who did not drink red wine.
- 5. Which one of the following CANNOT be reasonably attributed to the labeling strategy followed by wine producers in English speaking countries?

- a. Consumers buy wines on the basis of their familiarity with a grape variety's name.
- b. Even ordinary customers now have more access to technical knowledge about wine.
- c. Consumers are able to appreciate better quality wines.
- d. Some non-English speaking countries like Brazil indicate grape variety names on their labels.

Oil companies need offshore platforms primarily because the oil or natural gas the companies extract from the ocean floor has to be processed before pumps can be used to move the substances ashore. But because processing crude (unprocessed oil or gas) on a platform rather than at facilities onshore exposes workers to the risks of explosion and to an unpredictable environment, researchers are attempting to diminish the need for human labor on platforms and even to eliminate platforms altogether by redesigning two kinds of pumps to handle crude. These pumps could then be used to boost the natural pressure driving the flow of crude, which, by itself, is sufficient only to bring the crude to the platform, located just above the wellhead. Currently, pumps that could boost this natural pressure sufficiently to drive the crude through a pipeline to the shore do not work consistently because of the crude's content. Crude may consist of oil or natural gas in multiphase states – combinations of liquids, gases, and solids under pressure – that do not reach the wellhead in constant proportions. The flow of crude oil, for example, can change quickly from 60 percent liquid to 70 percent gas. This surge in gas content causes loss of "head", or pressure inside a pump, with the result that a pump can no longer impart enough energy to transport the crude mixture through the pipeline and to the shore.

Of two pumps being redesigned, the positive-displacement pump is promising because it is immune to sudden shifts in the proportion of liquid to gas in the crude mixture. But the pump's design, which consists of a single or twin screw pushing the fluid from one end of the pump to the other, brings crude into close contact with most parts of the pump, and thus requires that it be made of expensive, corrosion-resistant material. The alternative is the centrifugal pump, which has a rotating impeller that sucks fluid in at one end and forces fluid out at the other. Although this pump has a proven design and has worked for years with little maintenance in waste-disposal plants, researchers have discovered that because the swirl of its impeller separates gas out from the oil that normally accompanies it, significant reductions in head can occur as it operates.

Research in the development of these pumps is focused mainly on trying to reduce the cost of the positive-displacement pump and attempting to make the centrifugal pump more tolerant of gas. Other researchers are looking at ways of adapting either kind of pump for use underwater, so that crude could be moved directly from the sea bottom to processing facilities onshore, eliminating platforms.

- 1. Which one of following best expresses the main idea of the passage?
- (A) Oil companies are experimenting with technologies that may help diminish the danger to workers from offshore crude processing.
- (B) Oil companies are seeking methods of installing processing facilities underwater.
- (C) Researchers are developing several new pumps designed to enhance human labor efficiency in processing facilities.
- (D) Researchers are seeking to develop equipment that would preempt the need for processing facilities onshore.
- (E) Researchers are seeking ways to separate liquids from gases in crude in order to enable safer processing.

- 2. The passage supports which one of the following statements about the natural pressure driving the flow of crude?
- (A) It is higher than that created by the centrifugal pump.
- (B) It is constant regardless of relative proportions of gas and liquid.
- (C) It is able to carry the crude only as far as the wellhead.
- (D) It is able to carry the crude to the platform.
- (E) It is able to carry the crude to the shore.
- 3. Which one of the following best describes the relationship of the second paragraph to the passage as a whole?
- (A) It offers concrete detail designed to show that the argument made in the first paragraph is flawed.
- (B) It provides detail that expands upon the information presented in the first paragraph.
- (C) It enhances the author's discussion by objectively presenting in detail the pros and cons of a claim made in the first paragraph.
- (D) It detracts from the author's discussion by presenting various problems that qualify the goals presented.
- (E) It modifies an observation made in the first paragraph by detailing viewpoints against it.
- 4. Which one of the following phrases, if substituted for the word "head" would LEAST change the meaning of the sentence?
- (A) the flow of the crude inside the pump
- (B) the volume of oil inside the pump
- (C) the volume of gas inside the pump
- (D) the speed of the impeller moving the crude
- (E) the pressure inside of the pump
- 5. With which one of the following statements regarding offshore platforms would the author most likely agree?
- (A) If a reduction of human labor on offshore platform is achieved, there is no real need to eliminate platforms altogether.
- (B) Reducing human labor on offshore platforms is desirable because researchers' knowledge about the transportation of crude is dangerously incomplete.
- (C) The dangers involved in working on offshore platforms make their elimination a desirable goal.
- (D) The positive-displacement pump is the better alternative for researchers, because it would allow them to eliminate platforms altogether.
- (E) Though researchers have succeeded in reducing human labor on offshore platforms, they think that it would be inadvisable to eliminate platforms altogether, because these platforms have other uses.
- 6. Which one of the following can be inferred from the passage about pumps that are currently available to boost the natural pressure of crude?
- (A) The efficiency of these pumps depends on there being no gas in the flow of crude.
- (B) These pumps are more efficient when the crude is less subject to sudden increases in the proportion of gas to liquid.

- (C) A sudden change from solid to liquid in the flow of crude increases the efficiency of these pumps.
- (D) The proportion of liquid to gas in the flow of crude does not affect the efficiency of these pumps.
- (E) A sudden change from liquid to gas in the flow of crude increases the risk of explosion due to rising pressure inside these pumps.
- 7. The passage implies that the positive-displacement pump differs from the centrifugal pump in that the positive-displacement pump
- (A) is more promising, but it also is more expensive and demands more maintenance
- (B) is especially well research, since it has been used in other settings
- (C) involves the use of a single or twin screw that sucks fluid in at one end of the pump
- (D) is problematic because it cause rapid shifts from liquid to gas content in crude
- (E) involves exposure of many parts of the pump to crude
- 8. The passage implies that the current state of technology necessitates that crude be moved to shore
- (A) in a multiphase state
- (B) in equal proportions of gas to liquid
- (C) with small proportions of corrosive material
- (D) after having been processed
- (E) largely in the form of a liquid