For over 300 years, one of the most enduring beliefs among historians of England has been that the character of English society has been shaped by the unique openness of its ruling elite to entry by self-made entrepreneurs (especially newly wealthy merchants) able to buy their way into the ranks of elite society. This upward mobility, historians have argued, allowed England to escape the clash between those with social/political power and those with economic power, a conflict that beset the rest of Europe during the eighteenth and nineteenth centuries. Upward mobility was also used to explain England's exceptional stability since the late seventeenth century (no revolutions, for example), as well as such major events as the development of the most efficient agricultural system in Europe, the making of the first industrial revolution, and the onset of severe economic decline.

But is the thesis true? Recent work on the supposed consequences of an open elite has already produced some doubts. Little credence, for example, is now accorded the idea that England's late nineteenth-century economic decline resulted from absentee business owners too distracted by the demands of elite life to manage their firms properly. But, although the importance of an open elite to other major events has been severely questioned, it is only with a new work by Lawrence and Jeanne Stone that the openness itself has been confronted. Eschewing the tack of tracing the careers of successful entrepreneurs to gauge the openness of the elite, the Stones chose the alternative approach of analyzing the elite itself, and proceeded via the ingenious route of investigating country-house ownership.

Arguing that ownership of a country house was seen as essential for membership in the ruling elite, the Stones analyze the nature of country-house ownership in three counties for the period 1540-1880. Their critical findings are provocative: there was strikingly little change in the ownership of such houses throughout the period. Instead, even in the face of a demographic crisis (fewer marriages, declining fertility, rising infant mortality), the old elite was able to maintain itself, and its estates, intact for centuries through recourse to various marriage and inheritance strategies. The popular picture of venerable elite families overcome by debt and selling out to merchants is simply not borne out by the Stones' findings. Rather, the opportunities for entrepreneurs to buy their way into the elite, the Stones show, were extremely limited. If further studies of country-house ownership attest to the representativeness and accuracy of their data, then the Stones' conclusion that the open elite thesis cannot be maintained may, indeed, prove true.

1. According to the passage, one of the traditional explanations of England's late nineteenth-century economic decline has been that it resulted from the

Passage 61 (61/63)

- (A) tendency of the ruling elite to pursue conservative rather than innovative economic policies
- (B) failure of business entrepreneurs to reduce the power of the ruling elite in English society
- (C) investment of large amounts of capital in the purchase and maintenance of country houses
- (D) tendency of business owners to attempt to retain control of their firms within their families
- (E) failure of leading business entrepreneurs to pay close attention to their firms
- 2. The author suggests that which of the following was true of most European elites during the eighteenth and nineteenth centuries?
 - (A) The ranks of these elites were generally closed to most business entrepreneurs.
 - (B) The elites generally dominated industrial development.
 - (C) Status within these elites was generally determined by the amount of land owned.
 - (D) These elites generally were able to maintain their power unchallenged.
 - (E) The power of these elites generally forestalled the development of a large class of self-made entrepreneurs.
- 3. Traditional historians of England, as they are described in the passage, would be most likely to agree with which of the following statements regarding open elites?
 - (A) They develop more easily in agricultural rather than industrial societies.
 - (B) They develop in response to particular sets of economic conditions.
 - (C) They tend to unite some of the powerful groups in a society.
 - (D) They tend to reduce class distinctions based on income in a society.
 - (E) They tend to insure adequate distribution of material goods in a society.
- 4. The tone of the passage suggests that the author regards the Stones' methodological approach as
 - (A) problematic
 - (B) difficult
 - (C) controversial
 - (D) rigorous
 - (E) clever
- 5. Which of the following best states the main idea of the passage?
 - (A) Assumptions about the nature of England's ruling elite can no longer be used with certitude to explain many major economic developments.
 - (B) The concept of the open elite is of paramount importance in explaining major

- English political, social, and economic events.
- (C) The long-standing belief that England possessed a remarkably open ruling elite has recently been subjected to important and potentially lethal criticism.
- (D) Although many possibilities are available, the most reliable means of testing the truth of the 'open elite' hypothesis is to analyze changes in the composition of the elite.
- (E) An analysis of English country-house ownership in England indicates that there were few opportunities for merchants to buy the estates of old members of the landed elite.
- 6. Which of the following can be inferred from the Stones' findings about English country-house ownership in the three counties during the period 1540-1880?
 - (A) Little change in the number or size of English country houses occurred during this period.
 - (B) Wealthy business owners constituted a growing percentage of English country-house owners during this period.
 - (C) Most of the families that owned country houses at the beginning of this period continued to own them at the end.
 - (D) The most significant changes in English country-house ownership occurred during the second half of this period.
 - (E) Self-made entrepreneurs were able to enter the ranks of the English country-house owners during this period only through marriage.
- 7. The primary purpose of the passage is to
 - (A) resolve a debate between two schools of thought.
 - (B) Present research that questions an established view.
 - (C) Describe and criticize a new approach.
 - (D) Defend a traditional interpretation against recent criticisms.
 - (E) Analyze possible approaches to resolving a long-standing controversy.
- 8. The Stones suggest that major problems facing the English elite during the period 1540-1880 included which of the following?
 - I. A reduction in the number of their offspring
 - II. An increase in the amount of their indebtedness
 - III. A decline in their political and social power
 - (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
- 9. The author suggests that the Stones' conclusions about the openness of the

English elite would be strengthened by future studies that

- (A) pay more attention to other recent historical works
- (B) include more data on factors other than country-house ownership
- (C) concentrate more on the eighteenth and nineteenth centuries
- (D) expand the area of research to include more counties
- (E) focus more on successful business entrepreneurs

Passage 82

Comparable worth is a concept that rejects the premise of a separate and lower wage hierarchy for jobs that are done primarily by women, arguing instead that earnings should reflect only the worth of the work performed. This worth should be determined by an evaluation system that rates jobs according to their social importance and skill requirements. Because comparable worth does not attack all forms of inequality, it can have only a modest direct effect on the overall degree of inequality in society, but in attacking gender inequality in the job classification system it attacks a major component of gender inequality in the United States. The likelihood that other forms of inequality will become more manifest with the lessening of gender inequality is not a valid argument against comparable worth. Indeed, struggles for comparable worth may help launch campaigns against similar forms of inequity. Still, while conservatives have battled hard against comparable worth, radicals have been reluctant to fight for it because they see the narrow presentations in comparable worth litigation as the limits of the concept. But in addition to helping redress particular inequities, comparable worth could open a discussion of the entire wage system. Its theoretical and political impact will reach far beyond the framework in which it was conceived and force a rethinking of assumptions underlying current employment practices and the market itself.

How comparable worth will affect the hierarchy of wages is more difficult to foresee. It does not directly challenge the concept of a hierarchy; in fact, its insistence that jobs must be evaluated implies a hierarchy. However, its rejection of the market as an adequate basis for determining wages initiates a discussion of how value should be assigned to jobs. Advocates of comparable worth have challenged prevailing standards of evaluation, which them from formal job ovalions first developed in industrial settings. These evaluations, based on points awarded for different job tasks, gave considerable emphasis to such activities as strenuous lifting and the operation of expensive equipment. Consequently, the skills and knowledge more typical of work done by women are less heavily emphasized. The `Dictionary of Occupational Titles' reveals numerous current instances of such imbalance in job ratings.

While comparable-worth advocates accept the principle of a hierarchy of wages, arguing only that they seek more objective measures of job worth, the issues they raise provoke a broader debate. This debate does not, as the opponents have claimed, concern the feasibility of setting up and applying evaluative standards. Employers have done that for centuries. Rather, the debate is about the social values and priorities underlying the wage hierarchy and, ultimately, the market where age-old conventions and political, as opposed to purely economic, forces enter the process of setting wages.

1. Which of the following summarizes a main point of the passage?

- (A) The history of comparable worth closely parallels the history of changes in the structure of the economic system.
- (B) The ultimate success of comparable worth depends on a public discussion of the historical conditions that led to its formulation.
- (C) Comparable worth has social implications that extend beyond specific adjustments to the wage hierarchies for men and women.
- (D) Comparable worth is gaining adherents even though it has traditionally met with organized opposition.
- (E) Comparable worth has been instrumental in affording women access to jobs that had been held largely by men.
- 2. It can be inferred that the phrase a separate and lower wage hierarchy for jobs that are done primarily by women, as used in lines 2-3 of the passage, most nearly means which of the following?
 - (A) That there is a greater range of salaries for men than for women
 - (B) That women typically receive less money than men do for doing jobs of approximately the same value
 - (C) That there are fewer wage-earning women than men in the work force
 - (D) That men have traditionally been more likely than women to receive advancement on the basis of seniority
 - (E) That men and women typically do not compete for the same jobs
- 3. In the first paragraph of the passage, the author describes the potential role and function of comparable worth in language that most often suggests
 - (A) artistic endeavors
 - (B) business transactions
 - (C) criminal investigations
 - (D) military operations
 - (E) scientific experiments
- 4. It can be inferred from the passage that advocates of comparable worth believe which of the following?
 - (A) A given kind of work has a particular inherent value to the employer or to society.
 - (B) The market is more influenced by political and social forces now than it was in the past.
 - (C) Gender inequality in the United States is primarily a product of the current economic system.
 - (D) Conservatives and radicals have the same reasons for not supporting comparable worth.
 - (E) Those who devised job-evaluation standards were more interested in economic than political issues.

- 5. As used by the author in line 2 of the last paragraph, "more objective" most nearly means
 - (A) more quantifiable
 - (B) more seminal
 - (C) less categorical
 - (D) less job-specific
 - (E) less sex-biased
- 6. Which of the following best represents the sort of question at issue in the "broader debate" referred to in line 48 above?
 - (A) What political factors have affected the relationship between wages and job-evaluation ratings?
 - (B) What gains have been achieved in the struggle for comparable-worth legislation?
 - (C) Will a new standard for job evaluation be any more workable than the current one?
 - (D) How will the balance of supply and demand be affected by comparable worth?
 - (E) How soon is it reasonable to expect the passage of stronger comparable-worth legislation?
- 7. According to the passage, which of the following is the most likely application of the notion of comparable worth?
 - (A) The detailed explanation of the various forces that guide the market
 - (B) The formulation of attitudes about the role of supply and demand in setting wages
 - (C) The establishment of a political coalition in the struggle against inequity
 - (D) The integration of the industrial work force into the job market for a service and technology economy
 - (E) The reassessment of job characteristics as a means for determining just compensation
- 8. It can be inferred from the passage that radicals have not supported comparable worth because they view it as being
 - (A) unrelated to historic developments that have molded the current economic system
 - (B) an integral part of the same system that has institutionalized various forms of inequity
 - (C) likely to undermine the unity of a reform move-men by polarizing the different interest groups
 - (D) too limited and restricted in its uses to promote fundamental changes in the system

- (E) inherently flawed in that it has given rise to the concept of a wage hierarchy
- 9. The author's primary purpose in the passage is to
 - (A) criticize inconsistent experiments
 - (B) suggest a new direction for research
 - (C) describe an intriguing geophysical phenomenon
 - (D) present evidence supporting a theory
 - (E) evaluate data relating to lunar geology

Historians have long thought that America was, from the beginning, profoundly influenced by the Lockean notion of liberty, with its strong emphasis on individual rights and self-interest. Yet in his recent book, historian J. G. A. Pocock argues that early American culture was actually rooted in the writings of Machiavelli, not Locke. The implications of this substitution are important: if Pocock's argument is right, then Americans may not be as deeply individualistic and capitalistic as many believe.

Pocock argues that out of the writings of antiquity Machiavelli created a body of political thinking called "classical republicanism." This body of thought revived the ancient belief that a human being was by nature a citizen who achieved moral fulfillment by participating in a self-governing republic. Liberty was interpreted as a condition that is realized when people are virtuous and are willing to sacrifice their individual interests for the sake of the community. To be completely virtuous, people had to be independent and free of the petty interests of the marketplace. The greatest enemy of virtue was commerce. This classical republican tradition is said by Pocock to have shaped the ideology of America during the eighteenth century.

Many events in early American history can be reinterpreted in light of Pocock's analysis. Jefferson is no longer seen as a progressive reader of Locke leading America into its individualistic future; instead Jefferson is understood as a figure obsessed with virtue and corruption and fearful of new commercial developments. Influenced by Pocock, some historians have even argued that a communitarian and precapitalist mentality was pervasive among the eighteenth-century farmers of America.

Yet Pocock's thesis and the reinterpretation of the history of eighteenth-century America engendered by it are of dubious validity. If Americans did believe in the ideals of classical virtue that stressed civic duty and made the whole community greater than its discrete parts, then why did the colonists lack a sense of obligation to support the greater good of the British Empire? If indeed America has not always been the society of individual rights and self-interest that it is today, how and when did it be come so? Classical republicanism is elitist, and it certainly had little to offer the important new social groups of artisans and shopkeepers that emerged in America during the eighteenth century. These middle-class radicals, for whom John Wilkes and Thomas Paine were spokesmen, had none of the independence from the market that the landed gentry had. They were less concerned with virtue and community than they were with equality and private rights. They hated political privilege and wanted freedom from an elite-dominated state. In short, the United States was created not in a mood of classical

anxiety over virtue and corruption, but in a mood of liberal optimism over individual profits and prosperity.

- 1. Which of the following best states the author's main point?
 - (A) Classical republicanism could not have been the ideological basis of eighteenth-century America.
 - (B) Classical republicanism is an elitist theory that was rejected by eighteenth-century artisans and shopkeepers.
 - (C) Pocock understates the importance of the contributions Machiavelli made to the formation of early American culture.
 - (D) Pocock fails to capture the great extent to which eighteenth-century Americans were committed to a sense of civic duty.
 - (E) Pocock's account of Jefferson is incompatible with Jefferson's commitment to a Lockean notion of liberty.
- 2. The conception of liberty that, according to Pocock, formed the basis of America's eighteenth-century ideology is most clearly exhibited by which of the following individuals?
 - (A) The merchant who rebuilds the damaged sidewalk in front of his store in order to avoid potential lawsuits by customers who might fall there
 - (B) The professor who allows her students to help her design the content and the format of the courses she teaches
 - (C) The doctor who bows to government pressure and agrees to treat a small number of low-income patients at no cost
 - (D) The lawyer who argues that a state law prohibiting smoking in public places unfairly encroaches on the rights of smokers
 - (E) The engineer whose business suffers as a result of the personal time and energy he devotes to a program to clean up city streets
- 3. According to the author, eighteenth-century American artisans and shopkeepers had little reason to
 - (A) support the political efforts of Thomas Jefferson
 - (B) reject the ideals of classical virtue
 - (C) embrace the principles of classical republicanism
 - (D) renounce the political objectives of the British Empire
 - (E) worry about increasing profits and maintaining general prosperity
- 4. The author mentions which of the following as a fact that weakens Pocock's argument about the ideology of eighteenth-century America?
 - (A) Jefferson's obsession with virtue and corruption and his fear of commercial development
 - (B) The precapitalist mentality that was pervasive among farmers in early America

- (C) The political decline of artisans and shopkeepers in eighteenth-century America
- (D) The colonists' lack of commitment to support the general welfare of the British Empire
- (E) The existence of political privilege in early American society
- 5. The passage suggests that, if classical republicanism had been the ideology of eighteenth-century America, which of the following would have resulted?
 - (A) People would have been motivated to open small businesses and expand commercial activity.
 - (B) Citizens and politicians would not have been encouraged to agitate for increased individual rights.
 - (C) People would have been convinced that by pursuing their own interests they were contributing to the good of the group.
 - (D) The political and social privileges enjoyed by the landed gentry would have been destroyed.
 - (E) A mood of optimism among people over individual profits and prosperity would have been created.
- 6. The author implies that Pocock's argument about the ideology of eighteenth-century America would be more plausible if the argument explained which of the following?
 - (A) How a society that was once committed to the ideals of classical virtue could be transformed into a society of individual rights and self-interest
 - (B) How Thomas Jefferson could have become obsessed with individual rights and with prosperity and profits
 - (C) Why classical republicanism had such wide appeal among those who were free from the demands of the marketplace
 - (D) Why many colonists who embraced classical republicanism were reluctant to place their individual interests above those of Great Britain
 - (E) Why the landed gentry in eighteenth-century America should have believed that moral fulfillment is achieved by participating in a self-governing republic
- 7. According to the passage, Pocock's theory suggests that many eighteenth-century Americans believed that increasing commercial activity would
 - (A) force the landed gentry to relinquish their vast holdings
 - (B) enrich the nation and increase individual rights
 - (C) cause some people to forfeit their liberty and virtue
 - (D) create a mood of optimism about national prosperity
 - (E) strengthen the political appeal of middle-class radicals
- 8. The author is primarily concerned with

- (A) refuting a proposed thesis about eighteenth-century America
- (B) analyzing a long-established interpretation of American history
- (C) criticizing a set of deeply held beliefs about early American ideology
- (D) reconciling opposing interpretations of eighteenth-century American ideology
- (E) defending a novel reading of the ideology of eighteenth-century America

Astrophysicists wrestling with the study of a new kind of star, the flat, "two-dimensional" configurations known as accretion disks have recently gained new insights into the behavior of these stars. Accretion disks exist in a variety of situations where matters swirl around a compact star such as a white dwarf star or a neutron star. Accretion disks are also suspected of playing a part in more exotic situations, in which the central object is imagined to be a supermassive black hole, the ultimate form of collapsed matter, rather than a compact star. The modeling of accretion disks is still in its infancy, a situation analogous to the days when ordinary stars were modeled by using elementary scaling laws without benefit of knowledge of the nuclear processes that power the stars. Similarly, the basic physics of the power by which accretion disks radiate, thought to originate in a form of turbulent friction, is known only at the crudest level.

Accretion disks were first defined in the context of Cataclysmic variables. In these systems, matter from the outer layers of an ordinary star is attracted by the gravitational influence of a nearby orbiting white dwarf star, the matter lost from the ordinary star cannot strike the surface of the tiny white dwarf directly but settles into an orbit around the star. The viscosity in the disk thus formed causes heating, radiation, and a slow spiraling of disk matter onto the surface of the white dwarf.

The rapid advances made in x-ray astronomy in the past decade have identified a second type of system in which accretion disks occur. In such a system, an accretion disk whirls about a neutron star rather than a white dwarf. The inner reaches of the accretion disk extend deeply into the gravitational potential of the neutron star where very rapid motion is the rule. The energy released by friction and the actual raining of the material from the disk onto the surface of the neutron star is so great that radiation is given off in a powerful flood of x-rays. And in at least one case, x-ray astronomers believe that the object in the center of an accretion disk is a black hole, suggesting that a third system may exist.

It had been assumed that portions of accretion disks would be unstable and that, as a result, clumping of their matter into rings would occur. There is no evidence from observation, however, that accretion disks do, in fact, suffer from these instabilities. In recent work, Abramowicz has shown that added gravitational effects due to general relativity may alter the expected Newtonian gravitational relationships in such a way that the disk remains stable, indicating that it is possible that these predicted instabilities do not occur.

Further progress toward understanding accretion disks will involve defining and proposing solutions to restricted problems just as was done in this case and was done and continues to be done for ordinary stars. Abramowicz' work is a valuable example of the care that must be taken before reaching conclusions regarding accretion disks.

- 1. The author of the passage is primarily concerned with
 - (A) comparing Abramowicz' work to the work of earlier astrophysicists
 - (B) providing information about accretion disks and discussing significant new work
 - (C) defining the conditions under which accretion disks can be observed
 - (D) exploring the question of whether a black hole can ever be the central object of an accretion disk
 - (E) describing the phenomenon of accretion disks and reviewing several conflicting theories of their origins
- 2. It can be inferred from the passage that predictions of the instability of accretion disks were based on which of the following?
 - (A) A calculation of the probable effects of standard Newtonian gravitational relationships
 - (B) A calculation of the probable relationship between general relativity and standard Newtonian gravitational relationships
 - (C) A calculation of the energy released by friction within a compact star
 - (D) Observation of the x-rays radiated by compact stars
 - (E) Observation of the clumping of accretion disk matter into rings around compact stars
- 3. The author's attitude toward Abramowicz' work can best be described as one of
 - (A) uncertain approval
 - (B) unqualified respect
 - (C) mild interest
 - (D) careful dismissal
 - (E) hostile skepticism
- 4. The passage suggests which of the following about current scientific knowledge of the nuclear processes of ordinary stars?
 - (A) Its pattern of development has been analogous to that of developments in x-ray astronomy.
 - (B) Its role in the explanation of turbulent friction has been significant.
 - (C) It has contributed to a more accurate modeling of ordinary stars.
 - (D) It lags behind knowledge of scaling laws.
 - (E) It explains the behavior of accretion disks as well as that of ordinary stars.
- 5. The passage suggests that Abramowicz' work was motivated by which of the following assumptions?
 - (A) The quantity of energy released by accretion disks can be as large as it is only if the disks are stable.
 - (B) Improved techniques in x-ray astronomy would reveal any instabilities

- occurring in accretion disks.
- (C) The lack of observational evidence of instabilities in accretion disks suggests that predictions of their occurrence might be wrong.
- (D) Known methods of observing accretion disk surrounding compact stars and black holes do not permit the observation of the matter in accretion disks.
- (E) The gravitational potential of compact stars does not vary from star to star.
- 6. The passage implies which of the following about the progress of knowledge in astrophysics?
 - (A) Adherence to outdated theories has, in the past, limited the activities of astrophysicists and restricted progress.
 - (B) Progress has, in the past, occurred only as a result of significant breakthroughs in basic physics and chemistry.
 - (C) Progress has, in the past, occurred as a result of a process of defining and solving restricted problems.
 - (D) Given the recent acquisition of knowledge about the nuclear processes of stars, further progress is likely to be limited to the refinement of what is already known.
 - (E) Conclusions in astrophysics have, in the past, been seriously flawed, thus limiting progress, although there have recently been signs of change.
- 7. The passage suggests that, compared to the study of ordinary stars, the study of accretion disks is
 - (A) derivative
 - (B) more sophisticated
 - (C) less clearly focused
 - (D) at an earlier stage of development
 - (E) more dependent on technological advances
- 8. According to the passage, some accretion disks originated in
 - (A) an increase in heat and radiation around an ordinary star
 - (B) a powerful flood of x-rays emitted by a neutron star
 - (C) a collision between two stars
 - (D) the turbulent friction on the surface of a compact star
 - (E) the accumulation of matter removed from an ordinary star
- 9. It can be inferred from the passage that the significance of Abramowicz' work is that it
 - (A) provides a means of measuring the gravitational potential of neutron stars
 - (B) opens a new area for exploration in the field of x-ray astronomy
 - (C) proves that scaling laws cannot be applied to accretion disks
 - (D) proposes a new system of classification of stars

(E) suggests a resolution of a discrepancy between a theoretical prediction and actual observation

Passage 85

It is an unfortunate fact that most North Americans know little about American Indian culture and history. Scholars have studied such matters, but they have not succeeded in broadcasting their conclusions widely. Thus, it is still not widely known that American Indians have epics, that they performed plays long before Europeans arrived, and that they practiced politics and carried on trade.

One way to gain a fuller appreciation of this rich culture is to examine American Indian poetry, for poetry is in all cultures the most central and articulate of the arts. It is especially important that we study American Indian poetry as this poetry can create a context that gives cohesive expression to the crafts, the artifacts, and the isolated facts that many Americans have managed to notice willy-nilly. Even a survey of American Indian poetry reveals a range of poetic thought and technique that defies easy generalization. Jarold Ramsey hazards a summary, however, which serves at least to give the uninitiated reader some sense of what American Indian poetry is like. Overall, he writes, it represents "an oral, formulaic, traditional, and anonymous art form," whose approach is to emphasize the "mythic and sacred" components of reality. It "flourished through public performances... by skilled recitalists whose audiences already knew the individual stories" and valued the performers for their "ability to exploit their material dramatically and to combine them [their stories] in longer cycles" rather than for their "plot invention." Because this poetry belongs to highly ethnocentric tribal peoples, whose cultures "we still do not know much about," it "is likely to seem all the more terse, even cryptic."

American Indian poetry has another feature that Ramsey ignores: it is always functional. Whether sung, chanted, or recited; whether performed ceremonially, as entertainment, or as part of a task such as curing a patient or grinding corn; or whether recited individually or by a group, it is always fully woven into the fabric of ordinary life.

For complicated reasons, American Indian poetry has basically been ignored by non-Indian cultures. Kenneth Lincoln writes that failure to hear American Indian voices results "partly...from the tragedies of tribal dislocation, partly from mistranslation, partly from misconceptions about literature, partly from cultural indifference." Brian Swann suggests an additional explanation: tribal poetry is oral, whereas Europeans arrived in the New World with a deeply ingrained belief in the primacy of the written word. As a result, European settles found it hard to imagine that poetry could exist without written texts and thus that the American Indians had achieved something parallel to what Europeans called literature long before Europeans arrived. As a consequence, Europeans did not fully respond to the rich vitality of American Indian poetry.

- According to the passage, American Indian cultures have produced all of the following forms of artistic expression EXCEPT
 - (A) crafts
 - (B) dramas
 - (C) songs

- (D) written poems
- (E) oral epics
- 2. According to Jarold Ramsey, American Indian poetry is an art form characterized by its
 - (A) unusual depictions of landscapes
 - (B) integration with everyday affairs
 - (C) universal accessibility
 - (D) highly original plots
 - (E) adaptability to public performance
- 3. According to Kenneth Lincoln, one of the reasons that non-Indians have had little knowledge of American Indian poetry is that American Indian poems
 - (A) have been poorly translated
 - (B) have not yet attracted the scholarly attention they deserve
 - (C) can be appreciated only when presented orally
 - (D) are difficult to understand without a background in comparative mythology
 - (E) are too stylistically complex
- 4. According to the passage, it would be unusual for American Indian poetry to be
 - (A) attributed to specific authors
 - (B) sung by a group of performers
 - (C) chanted while working
 - (D) sung during a sacred ceremony
 - (E) performed in a dramatic manner
- 5. It can be inferred from the passage that Brian Swann believes which of the following about the European settlers of America?
 - (A) They probably were more literate, on the average, than the general European population they left behind.
 - (B) They probably thought it necessary to understand American Indian politics before studying American Indian literature.
 - (C) They probably did not recognize evidence of an oral poetic tradition in the American Indian cultures they encountered.
 - (D) They probably could not appreciate American Indian poetry because it was composed in long narrative cycles.
 - (E) They probably did not study American Indian poetry because its subject matter was too practically oriented.
- 6. The tone of lines 12-16 suggests that the author believes that most Americans' knowledge of American Indian culture can best be characterized as
 - (A) spotty and contradictory

- (B) stereotyped and limited
- (C) confused and inaccurate
- (D) unsystematic and superficial
- (E) vague and biased
- 7. Which of the following best describes the organization of the last paragraph of the passage?
 - (A) An observation is made and qualifications of it are provided.
 - (B) A phenomenon is noted and explanations for it are presented.
 - (C) A hypothesis is presented and arguments against it are cited.
 - (D) A prognosis is made and evidence supporting it is discussed.
 - (E) A criticism is presented and information expanding it is provided.

Early models of the geography of the metropolis were unicellular: that is, they assumed that the entire urban district would normally be dominated by a single central district, around which the various economic functions of the community would be focused. This central business district (CBD) is the source of so-called high-order goods and services, which can most efficiently be provided from a central location rather than from numerous widely dispersed locations. Thus, retailers of infrequently and irregularly purchased goods, such as fur coats, jewelry, and antique furniture, and specialized service outlets, such as theaters, advertising agencies, law firms, and government agencies, will generally be found in the CBD. By contrast, less costly, more frequently demanded goods, such as groceries and housewares, and low-order services, such as shoe repair and hairdressing, will be available at many small, widely scattered outlets throughout the metropolis.

Both the concentric-ring model of the metropolis, first developed in Chicago in the late nineteenth century, and the sector model, closely associated with the work of Homer Hoyt in the 1930s, make the CBD the focal point of the metropolis. The concentric-ring model assumes that the varying degrees of need for accessibility to the CBD of various kinds of economic entities will be the main determinant of their location. Thus, wholesale and manufacturing firms, which need easy accessibility to the specialized legal, financial, and governmental services provided in the CBD, will normally be located just outside the CBD itself. Residential areas will occupy the outer rings of the model, with low-income groups residing in the relatively crowded older housing close to the business zone and high-income groups occupying the outermost ring, in the more spacious, newer residential areas built up through urban expansion.

Homer Hoyt's sector model is a modified version of the concentric-ring model. Recognizing the influence of early established patterns of geographic distribution on the later growth of the city, Hoyt developed the concept of *directional inertia*. According to Hoyt, custom and social pressures tend to perpetuate locational patterns within the city. Thus, if a particular part of the city (say, the east side) becomes a common residential area for higher-income families, perhaps

because of a particular topographical advantage such as a lake or other desirable feature, future expansion of the high-income segment of the population is likely to proceed in the same direction. In our example, as the metropolis expands, a wedge-shaped sector would develop on the east side of the city in which the higher-income residence would be clustered. Lower-income residences, along with manufacturing facilities, would be confined, therefore, to the western margins of the CBD.

Although Hoyt's model undoubtedly represented an advance in sophistication over the simpler concentric-ring model, neither model fully accounts for the increasing importance of focal points other than the traditional CBD. Recent years have witnessed he establishment around older cities of secondary nuclei centered on suburban business districts. In other cases, particular kinds of goods, services, and manufacturing facilities have clustered in specialized centers away from the CBD, encouraging the development of particular housing patterns in the adjacent areas. A new multicellular model of metropolitan geography is needed to express these and other emerging trends of urban growth.

- 1. The primary purpose of the passage is to
 - (A) explain the significance of Hoyt's concept of directional inertia and its effect on patterns of urban growth
 - (B) emphasize the inadequacy of past attempts to explain patterns of urban geography
 - (C) analyze two varying theories concerning the distribution of residential areas within and around the metropolis
 - (D) describe two models of metropolitan geography and suggest their limitations
 - (E) show the importance of the central business district as a focus for urban growth
- 2. It can be inferred from the passage that according to a unicellular urban model, law firms are commonly located near the center of a city mainly because
 - (A) law firms benefit from the proximity to financial and governmental services that a center city location provides
 - (B) the demand for legal services is too irregular to support many small law firms in the outer districts of the city
 - (C) law firms require accessibility to the wholesale and retail businesses that provide a major share of their clientele
 - (D) the high-income groups that make up the primary users of legal services demand easy access to the firms' offices
 - (E) the specialized service personnel required by a law firm are often interested in residing as close as possible to the city center
- 3. According to the concentric-ring model, in which of the following orders (from the center of the city outward) would the areas of the typical city be arranged?
 - (A) central business district, low-income housing, wholesale and manufacturing businesses, high-income housing

- (B) central business district, wholesale and manufacturing businesses, low-income housing, high-income housing
- (C) wholesale and manufacturing businesses, central business district, low-income housing, high-income housing
- (D) central business district, high-income housing, wholesale and manufacturing businesses, low-income housing
- (E) wholesale and manufacturing businesses, low-income housing, central business district, high-income housing
- 4. According to the passage, the sector model differs from the concentric-ring model primarily in that it
 - (A) stresses the role of topographic features in determining patterns of urban development
 - (B) emphasizes the continuing expansion of the city as an influence on urban development
 - (C) recognizes the importance of focal points of urban growth other than the traditional central business district
 - (D) assumes that the need for access to the central business district is the main determinant of urban developmental patterns
 - (E) takes into account the influence of certain social factors on urban geographical patterns
- 5. The passage states that both the concentric-ring model and the sector model
 - (A) inadequately represent the forms of urban development emerging in today's cities
 - (B) need to be considerably refined to be of real use to students of urban growth
 - (C) have been superseded by more recently developed models of urban growth
 - (D) represent older cities more accurately than they do newly founded metropolitan areas
 - (E) fail to explain the rapid outward growth of cities that has occurred in recent years
- 6. According to the passage, an updated model of urban geography would indicate the
 - (A) phenomenal growth in population and area of suburban residential districts beyond the limits of the city itself
 - (B) recent decline in the influence of business and industry over the geographical patterns of urban growth
 - (C) growing importance of urban business and service centers located away from the central business district
 - (D) clustering of business facilities in recently built areas, while older districts are turned into residential areas

- (E) gradual displacement of older urban centers by new, more highly specialized cities in geographically dispersed locations
- 7. All of the following are examples of the emerging trends of urban growth described in the last paragraph of the passage EXCEPT
 - (A) the construction in a suburban community of a large shopping mall where many of the local residents do most of their buying
 - (B) the opening of an industrial park on the outskirts of a declining older city
 - (C) the construction of hospital-medical school complex near a highway fifteen miles from a downtown business district
 - (D) the building of a residential development near a suburban tool factory to house the factory workers and their families
 - (E) the creation of a luxury housing development in a rural setting thirty miles from the center of a city
- 8. Which of the following best describes the organization of the last paragraph of the passage?
 - (A) It summarizes the information presented in the first three paragraphs and draws some conclusions.
 - (B) It outlines a new model, applies it to recent phenomena, and argues in favor of its adoption.
 - (C) It introduces no evidence in support of an existing model.
 - (D) It evaluates two models in the light of recent evidence and advocates the development of a third model.
 - (E) It compares one model unfavorably with another and develops the comparison by citing examples.

There is widespread belief that the emergence of giant industries has been accompanied by an equivalent surge in industrial research. A recent study of important inventions made since the turn of the century reveals that more than half were the product of individual inventors working alone, independent of organized industrial research. While industrial laboratories contributed such important products as nylon and transistors, independent inventors developed air conditioning, the automatic transmission, the jet engine, the helicopter, insulin, and streptomycin. Still other inventions, such as stainless steel, television, silicones, and Plexiglas were developed through the combined efforts of individuals and laboratory teams.

Despite these finding, we are urged to support monopolistic power on the grounds that such power creates an environment supportive of innovation. We are told that the independent inventor, along with the small firm, cannot afford to undertake the important research needed to improve our standard of living while protecting our diminishing resources; that only the giant corporation or conglomerate, with its prodigious assets, can afford the kind of expenditures that produce the technological advances vital to economic progress. But when we examine

expenditures for research, we find that of the more than \$35 billion spent each year in this country, almost two-thirds is spent by the federal government. More than half of this government expenditure is funneled into military research and product development, accounting for the enormous increase in spending in such industries as nuclear energy, aircraft, missiles, and electronics. There are those who consider it questionable that these defense-linked research projects will either improve our standard of living or do much to protect our diminishing resources.

Recent history has demonstrated that we may have to alter our longstanding conception of the process actuated by competition. The price variable, once perceived as the dominant aspect of the process, is now subordinate to the competition of the new product, the new business structure, and the new technology. While it can be assumed that in a highly competitive industry not dominated by single corporation, investment in innovation—a risky and expensive budget item—might meet resistance from management and stockholders concerned about cost-cutting, efficient organization, and large advertising budgets, it would be an egregious error to equate the monopolistic producer with bountiful expenditures on research. Large-scale enterprises tend to operate more comfortably in stable and secure circumstances, and their managerial bureaucracies tend to promote the status quo and resist the threat implicit in change. Moreover, in some cases, industrial giants faced with little or no competition seek to avoid the capital loss resulting from obsolescence by deliberately obstructing technological progress. By contrast, small firms undeterred by large investments in plant and capital equipment often aggressively pursue new techniques and new products, investing in innovation in order to expand their market shares.

The conglomerates are not, however, completely except from strong competitive pressures. There are instances in which they too must compete with another industrial Goliath, and then their weapons may include large expenditures for innovation.

- 1. The primary purpose of the passage is to
 - (A) advocate an increase in government support of organized industrial research
 - (B) point out a common misconception about the relationship between the extent of industrial research and the growth of monopolistic power in industry
 - (C) describe the inadequacies of small firms in dealing with the important matter of research and innovation
 - (D) show that America's strength depends upon individual ingenuity and resourcefulness
 - (E) encourage free-market competition among industrial giants
- 2. According to the passage, important inventions of the twentieth century
 - (A) were produced largely as a result of governmental support for military weapons research and development
 - (B) came primarily from the huge laboratories of monopolistic industries
 - (C) were produced at least as frequently by independent inventors as by research teams
 - (D) have greater impact on smaller firms than on conglomerates

- (E) sometimes adversely affect our standard of living and diminish our natural resources
- 3. Which of the following best describes the organization of the second paragraph of the passage?
 - (A) Expenditures for various aspects of research are listed.
 - (B) Reasons for supporting monopolistic power are given and then questioned.
 - (C) Arguments are presented for minimizing competitive bidding for research.
 - (D) Resources necessary for research are defined.
 - (E) Costs for varied aspects of military research are questioned.
- 4. It can be inferred from the passage that the author
 - (A) has little confidence in the ability of monopolistic industry to produce the important inventions of the future
 - (B) would rather see the federal government spend money on social services than on the defense establishment
 - (C) favors a conservative approach to innovation and places trust in conglomerates to provide efficient production
 - (D) feels that price should still be the dominant variable in the competitive process
 - (E) believes that excessive competition is a deterrent to innovation
- 5. The passage contains information that answers which of the following questions?
 - I. What portion of the research dollar in this country is spent each year by the federal government?
 - II. Under what circumstances is an industrial giant likely to invest heavily in innovation?
 - III. Why might a monopolistic producer want to suppress an innovation?
 - (A) I only
 - (B) II only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
- 6. With which of the following statements would the author of the passage be most likely to agree?
 - (A) Monopolistic power creates an environment supportive of innovation.
 - (B) Governmental expenditure for military research will do much to protect our dwindling resources.
 - (C) Industrial giants, with their managerial bureaucracies, respond more quickly to technological change than smaller firms do.
 - (D) Firms with a small share of the market aggressively pursue innovations

- because they are not locked into old capital equipment.
- (E) The independent inventor cannot afford to undertake the research needed to improve our standard of living.
- 7. Which of the following proposals best responds to the issues raised by the author?
 - (A) Governmental restraints on monopolies should be lifted, and government funding should be made available to large corporations wishing to engage in research.
 - (B) Governmental restraints on monopolies should be tightened, and government funding should be made available to small corporations and independent individuals wishing to engage in research.
 - (C) Governmental restraints on monopolies should be tightened, and no government funding should be provided to any corporations or individuals wishing to engage in research.
 - (D) The amount the government spends on military research should be decreased, and the amount it spends to improved the standard of living should be increased.
 - (E) Governmental restraints on monopolies should be lifted, and no government funding should be provided to any corporations or individuals wishing to engage in research.
- 8. Which of the following, if true, would most weaken the author's main point?
 - (A) In the last decade, conglomerates have significantly increased their research budgets for defense technology.
 - (B) Tax restructuring permits smaller firms to write off a larger percentage of profits against research.
 - (C) A ten-year study of the extent of resources devoted to research by smaller enterprises reveals a steady decline.
 - (D) Military research is being directed more extensively to space technology than to short-range missiles.
 - (E) Competition from foreign industries has increased the cost of labor and materials.

Shaw's defense of a theater of ideas brought him up against both his great bugbears—commercialized art on the one hand and Art for Art's Sake on the other. His teaching is that beauty is a by-product of other activity; that the artist writes out of moral passion (in forms varying from political conviction to religious zeal), not out of love of art; that the pursuit of art for its own sake is a form of self-indulgence as bad as any other sort of sensuality. In the end, the errors of "pure" art and of commercialized art are identical: they both appeal primarily

to the senses. True art, on the other hand, is not merely a matter of pleasure. It may be unpleasant. A favorite Shavian metaphor for the function of the arts is that of tooth-pulling. Even if the patient is under laughing gas, the tooth is still pulled.

The history of aesthetics affords more examples of a didactic than of a hedonist view. But Shaw's didacticism takes an unusual turn in its application to the history of arts. If, as Shaw holds, ideas are a most important part of a work of art, and if, as he also holds, ideas go out of date, it follows that even the best works of art go out of date in some important respects and that the generally held view that great works are in all respects eternal is not shared by Shaw. In the preface to *Three Plays for Puritans*, he maintains that renewal in the arts means renewal in philosophy, that the first great artist who comes along after a renewal gives to the new philosophy full and final form, that subsequent artists, though even more gifted, can do nothing but refine upon the master without matching him. Shaw, whose essential modesty is as disarming as his pose of vanity is disconcerting, assigns to himself the role, not of the master, but of the pioneer, the role of a Marlowe rather than of a Shakespeare. "The whirligig of time will soon bring my audiences to my own point of view," he writes, "and then the next Shakespeare that comes along will turn these petty tentatives of mine into masterpieces final for their epoch."

"Final for their epoch"—even Shakespearean masterpieces are not final beyond that. No one, says Shaw, will ever write a better tragedy than *Lear* or a better opera than *Don Giovanni* or a better music drama than *Der Ring des Nibelungen;* but just as essential to a play as this aesthetic merit is moral relevance which, if we take a naturalistic and historical view of morals, it loses, or partly loses, in time. Shaw, who has the courage of his historicism, consistently withstands the view that moral problems do not change, and argues therefore that for us modern literature and music form a Bible surpassing in significance the Hebrew Bible. That is Shaw's anticipatory challenge to the neo-orthodoxy of today.

- 1. The primary purpose of the passage is to discuss
 - (A) the unorthodoxy of Shaw's views on the Bible
 - (B) the aesthetic merit of Shaw's plays
 - (C) Shaw's theory of art
 - (D) Shavian examples of the theater of ideas
 - (E) Shaw's naturalistic and historical view of morals
- 2. The author sets off the word "pure" (line 9) with quotation marks in order to
 - (A) contrast it with the word "true," which appears later (line 10)
 - (B) suggest that, in this context, it is synonymous with "commercialized" (line 9)
 - (C) underscore its importance
 - (D) strip away its negative connotations
 - (E) emphasize its positive connotations
- 3. According to the author, Shaw compares art to tooth-pulling (lines 12-14) in order to show that
 - (A) the moral relevance of a work of art must be extracted from the epoch in

which it was created

- (B) true art is painful to the senses
- (C) even the best works of art go out of date
- (D) pleasure is not the sole purpose of art
- (E) all art has a lasting effect on its audience
- 4. According to the author, Shaw's didacticism was unusual in that it was characterized by
 - (A) idealism
 - (B) historicism
 - (C) hedonism
 - (D) moralism
 - (E) religious zeal
- 5. It can be inferred from the passage that Shaw would probably agree with all of the following statements about Shakespeare EXCEPT:
 - (A) He wrote out of a moral passion.
 - (B) All of his plays are out of date in some important respect.
 - (C) He was the most profound and original thinker of his epoch.
 - (D) He was a greater artist than Marlowe.
 - (E) His *Lear* gives full and final form to the philosophy of his age.
- 6. Which of the following does the author cite as a contradiction in Shaw?
 - (A) Whereas he pretended to be vain, he was actually modest.
 - (B) He questioned the significance of the Hebrew Bible, and yet he believed that a great artist could be motivated by religious zeal.
 - (C) Although he insisted that true art springs from moral passion, he rejected the notion that morals do not change.
 - (D) He considered himself to be the pioneer of a new philosophy, but he hoped his audiences would eventually adopt his point of view.
 - (E) On the one hand, he held that ideas are a most important part of a work of art; on the other hand, he believed that ideas go out of date.
- 7. The ideas attributed to Shaw in the passage suggest that he would most likely agree with which of the following statements?
 - (A) Every great poet digs down to a level where human nature is always and everywhere alike.
 - (B) A play cannot be comprehended fully without some knowledge and imaginative understanding of its context.
 - (C) A great music drama like *Der Ring des Nibelungen* springs from a love of beauty, not from a love of art.
 - (D) Morality is immutable; it is not something to be discussed and worked out.

- (E) *Don Giovanni* is a masterpiece because it is as relevant today as it was when it was created.
- 8. The passage contains information that answers which of the following questions?
 - I. According to Shaw, what is the most important part of a work of art?
 - II. In Shaw's view, what does the Hebrew Bible have in common with Don Giovanni?
 - III. According to the author, what was Shaw's assessment of himself as a playwright?
 - (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
- 9. As it is revealed in the passage, the author's attitude toward Shaw can best be described as
 - (A) condescending
 - (B) completely neutral
 - (C) approving
 - (D) envious
 - (E) adulatory

One of the many theories about alcoholism is the learning and reinforcement theory, which explains alcoholism by considering alcohol ingestion as a reflex response to some stimulus and as a way to reduce an inner drive state such as fear or anxiety. Characterizing life situations in terms of approach and avoidance, this theory holds that persons tend to be drawn to pleasant situations and repelled by unpleasant ones. In the latter case, alcohol ingestion is said to reduce the tension or feelings of unpleasantness and to replace them with the feeling of euphoria generally observed in most persons after they have consumed one or more drinks.

Some experimental evidence tends to show that alcohol reduces fear in the approach-avoidance situation. Conger trained one group of rats to approach a food goal and, using aversion conditioning, trained another group to avoid electric shock. After an injection of alcohol the pull away from the shock was measurable weaker, while the pull toward the food was unchanged.

The obvious troubles experienced by alcoholic persons appear to contradict the learning theory in the explanation of alcoholism. The discomfort, pain, and punishment they experience should presumably serve as a deterrent to drinking. The fact that alcoholic persons continue to drink in the face of family discord, loss of employment, illness, and other sequels of repeated bouts is explained by the proximity of the drive reduction to the consumption of alcohol; that is, alcohol has the immediate effect of reducing tension while the unpleasant consequences of

drunken behavior come only later. The learning paradigm, therefore, favors the establishment and repetition of the resort to alcohol.

In fact, the anxieties and feelings of guilt induced by the consequences of excessive alcohol ingestion may themselves become the signal for another bout of alcohol abuse. The way in which the cue for another bout could be the anxiety itself is explained by the process of stimulus generalization: conditions or events occurring at the time of reinforcement tend to acquire the characteristics of state of anxiety or fear, the emotional state itself takes on the properties of a stimulus, thus triggering another drinking bout.

The role of punishment is becoming increasingly important in formulating a cause of alcoholism based on the principles of learning theory. While punishment may serve to suppress a response, experiments have shown that in some cases it can serve as a reward and reinforce the behavior. Thus if the alcoholic person has learned to drink under conditions of both reward and punishment, either type of condition may precipitate renewed drinking.

Ample experimental evidence supports the hypothesis that excessive alcohol consumption can be learned. By gradually increasing the concentration of alcohol in drinking water, psychologists have been able to induce the ingestion of larger amounts of alcohol by an animal than would be normally consumed. Other researchers have been able to achieve similar results by varying the schedule of reinforcement—that is, by requiring the animal to consume larger and larger amounts of the alcohol solutions before rewarding it. In this manner, animals learn to drink enough to become dependent on alcohol in terms of demonstrating withdrawal symptoms.

- 1. The primary purpose of the passage is to
 - (A) compare the learning and reinforcement theory to other theories of alcoholism
 - (B) discuss how the behavior of alcoholic persons is explained by learning theory
 - (C) argue that alcoholism is a learned behavior
 - (D) explain how fear and anxiety stimulate and reinforce drinking in alcoholic persons
 - (E) present experimental evidence in support of the learning and reinforcement theory of alcoholism
- 2. The passage contains information that answers which of the following questions?
 - (A) What are some of the psychosocial problems associated with alcoholism?
 - (B) Which has proven more effective in the treatment of alcoholism, aversion conditioning or reinforcement?
 - (C) Why does alcohol ingestion reduce tension and give rise to a feeling of euphoria in most people?
 - (D) According to the learning theory, in what cases does punishment reinforce rather than deter drinking in alcoholic persons?
 - (E) Are some persons genetically predisposed to alcoholism?
- 3. It can be inferred from the passage that aversion conditioning is based primarily

- on the principle that
- (A) electric shock stimulates a response
- (B) behavior that is punished will be avoided
- (C) pain is a stronger stimulus than pleasure
- (D) alcohol reduces fear
- (E) behavior that is rewarded will be repeated
- 4. According to the passage, which of the following is true of stimulus generalization?
 - (A) It contradicts the learning and reinforcement theory of alcoholism.
 - (B) It is the process by which an organism learns to respond to one stimulus but not to similar stimuli.
 - (C) It supports the hypothesis that excessive alcohol consumption can be learned.
 - (D) It explains why people tend to avoid behavior that is associated with painful experiences.
 - (E) It occurs when the conditions associated with a stimulus come to evoke the same response as the stimulus itself evokes.
- 5. The author cites Conger's experiment with two groups of rats in order to
 - (A) show that ingestion of alcohol does not affect appetite
 - (B) corroborate the findings of other academic researchers
 - (C) show that alcohol decreases fear
 - (D) disprove the learning and reinforcement theory
 - (E) convince the reader of the usefulness of behavioral research
- 6. According to the passage, which of the following could induce an alcoholic to drink?
 - I. The need to relieve tension
 - II. Anxieties resulting from guilt feelings about previous drinking bouts
 - III. Punishment for alcoholic behavior
 - (A) I only
 - (B) II only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
- 7. The passage contains information that supports which of the following statements?
 - (A) If the pleasurable taste of whisky leads to an acquired taste for brandy, then stimulus generalization has occurred.
 - (B) Slapping a child for misbehaving may over time encourage the child to repeat

the misbehavior.

- (C) If a person has learned to drink under two sets of conditions, both must be present in order to induce that person to drink again.
- (D) Continued heavy use of alcohol usually causes severe damage to the body and nervous system.
- (E) When consumed in moderation, alcohol may benefit health.
- 8. According to the passage, how does the behavior of alcoholics appear to contradict learning theory?
 - (A) Learning theory holds that people are drawn by pleasant situations and repelled by unpleasant ones, but in alcoholics that pattern appears to be reversed.
 - (B) Contrary to learning theory, alcoholic persons do not respond to life situations in terms of approach and avoidance.
 - (C) The unpleasant consequences of excessive alcoholic consumption do not deter alcoholics from drinking, as might be predicted from learning theory.
 - (D) According to learning theory, drinking is a reflex response to an external stimulus, but for alcoholics it is more often a way to reduce an inner drive such as fear.
 - (E) Instead of the feeling of euphoria predicted by learning theory, alcoholics frequently experience discomfort and pain after drinking.
- 9. It can be inferred from the passage that the author views the learning and reinforcement theory of alcoholism as
 - (A) credible
 - (B) unassailable
 - (C) outdated
 - (D) fallacious
 - (E) revolutionary

Passage 90

(The following passage was written in 1977.)

Changes in the volume of unemployment are governed by three fundamental forces: the growth of the labor force, the increase in output per man-hour, and the growth of total demand for goods and services. Changes in the average hours of work enter in exactly parallel fashion but have been quantitatively less significant. As productivity rises, less labor is required per dollar of national product, or more goods and services can be produced with the same number of man-hours. If output does not grow, employment will certainly fall; if production increases more rapidly than productivity (less any decline in average hours worked), employment must rise. But the labor force grows, too. Unless gross national product (total final expenditure for goods and services corrected for price changes) rises more rapidly than the sum of productivity increase and labor force growth (again modified for any change in hours of work), the increase

in employment will be inadequate to absorb the growth in the labor force. Inevitably the unemployment rate will increase. Only when total production expands faster than the rate of labor force growth plus the rate of productivity increase and minus the rate at which average annual hours fall does the unemployment rate fall. Increases in productivity were more important than growth of the labor force as sources of the wide gains in output experienced in the period from the end of World War II to the mid-sixties. These increases in potential production simply were not matched by increases in demand adequate to maintain steady full employment.

Except for the recession years of 1949, 1954, and 1958, the rate of economic growth exceeded the rate of productivity increase. However, in the late 1950s productivity and the labor force were increasing more rapidly than usual, while the growth of output was slower than usual. This accounted for the change in employment rates.

But if part of the national purpose is to reduce and contain unemployment, arithmetic is not enough. We must know which of the basic factors we can control and which we wish to control. Unemployment would have risen more slowly or fallen more rapidly if productivity had increased more slowly, or the labor force had increased more slowly, or the hours of work had fallen more steeply, or total output had grown more rapidly. These are not independent factors, however, and a change in any of them might have caused changes in the others.

A society can choose to reduce the growth of productivity, and it can probably find ways to frustrate its own creativity. However, while a reduction in the growth of productivity at the expense of potential output might result in higher employment in the short run, the long-run effect on the national interest would be disastrous.

We must also give consideration to the fact that hidden beneath national averages is continuous movement into, out of, between, and within labor markets. For example, 15 years ago, the average number of persons in the labor force was 73.4 million, with about 66.7 million employed and 3.9 million unemployed. Yet 14 million experienced some term of unemployment in that year. Some were new entrants to the labor force; others were laid off temporarily. The remainder were those who were permanently or indefinitely severed from their jobs. Thus, the average number unemployed during a year understates the actual volume of involuntary displacement that occurs.

High unemployment is not an inevitable result of the pace of technological change but the consequence of passive public policy. We can anticipate a moderate increase in the labor force accompanied by a slow and irregular decline in hours of work. It follows that the output of the economy—and the aggregate demand to buy it—must grow by more than 4 percent a year just to prevent the unemployment rate from rising, and by even more if the unemployment rate is to fall further. Yet our economy has seldom, if ever, grown at a rate greater than 3.5 percent for any extended length of time. We have no cause of complacency. Positive fiscal, monetary, and manpower policies will be needed in the future.

- 1. The primary purpose of the passage is to
 - (A) define the economic terms used in the discussion of employment
 - (B) criticize the decisions of past administrations during recession years
 - (C) call for the application of positive economic control policies in the years that

lie ahead

- (D) allay current fears about increasing unemployment
- (E) document the rise of American productivity since World War II
- 2. According to the passage, if the labor force does not grow and there is no decline in the average number of hours worked, under which of the following conditions will the employment rate inevitably rise?
 - (A) Total production expands faster than the total demand for goods and services.
 - (B) The total demand for goods and services and productivity both rise.
 - (C) Output per man-hour and gross national product both rise.
 - (D) Productivity increases more rapidly than production.
 - (E) Production increases more rapidly than output per man-hour.
- 3. It can be inferred from the passage than in the late 1950s, which of the following occurred?
 - I. The growth in output was less than 3.5 percent.
 - II. The average number of hours worked declined.
 - III. The increase in output per man-hour was greater than usual.
 - (A) I only
 - (B) II only
 - (C) III only
 - (D) I and III only
 - (E) I, II, and III
- 4. It can be inferred from the passage that during the recession years of 1949, 1954, and 1958, which of the following most likely occurred?
 - (A) The labor force increased more rapidly than it did in any other year between 1945 and 1965.
 - (B) More labor was required per dollar of national product than in any other year between 1945 and 1965.
 - (C) The average number of hours worked rose.
 - (D) Full employment was attained.
 - (E) The rate of unemployment increased.
- 5. It can be inferred from the passage that if a policy to increase employment by reducing the growth of productivity at the expense of potential output were adopted, the author most likely would regard it as
 - (A) sound but inadequate
 - (B) overly aggressive
 - (C) frivolous
 - (D) insidious

- (E) unobjectionable
- 6. It can be inferred from the passage that, according to the author, the actual number of people who experience some term of unemployment during any given year
 - (A) is the difference between the number of persons in the labor force and the number of persons employed that year
 - (B) does not reflect movement into, out of, between, and within labor markets
 - (C) exceeds the average number unemployed during that year
 - (D) overstate the volume of involuntary displacement that occurs during the year
 - (E) is impossible to calculate
- 7. The passage contains information that answers all of the following questions EXCEPT:
 - (A) What is gross national product?
 - (B) What effect does a change in productivity invariably have on gross national product?
 - (C) Under what conditions might employment rise in the short run?
 - (D) What effect does an increase in output and a decrease in number of hours worked have on productivity?
 - (E) What was the average number of people unemployed in 1962?
- 8. Which of the following best describes the organization of the fifth paragraph of the passage?
 - (A) An assertion is made, data are provided to support it, and the assertion is reiterated in different words.
 - (B) Several figures are given and hypothesis is formulated to explain them.
 - (C) An example is given to support the conclusion drawn in the preceding paragraph.
 - (D) A statement is made, data are provided to illustrate and amplify the statement, and a conclusion is drawn.
 - (E) A generalization is made and an example is given to refute it.
- 9. Which of the following proposals best responds to the author's concerns?
 - (A) The government should manipulate the size of the labor force to prevent future recessions.
 - (B) The government should maintain some controls over the economy, but it should allow the employment rate to rise and fall with the gross national product, as a check on labor costs.
 - (C) People should accept that unemployment is undesirable but unavoidable.
 - (D) The government should manage the economy carefully.
 - (E) The government should not interfere in the interplay among the three forces

affecting unemployment.

- 10. Which of the following best summarizes the main idea of the passage?
 - (A) We can and must take steps to ensure that the unemployment rate does not continue to rise as our population and our use of technology increase.
 - (B) Increases in potential production must be matched by increases in demand in order to maintain steady full employment.
 - (C) High unemployment is not an inevitable result of the pace of technological change but the consequence of passive public policy.
 - (D) If part of the national purpose is to reduce and contain unemployment, arithmetic is not enough.
 - (E) Full employment, regardless of fluctuations in the economy, is within the realm of possibility.

Answer Key

Passage 81

1.	E	2.	D	3.	В	4.	E	5. C
6.	C	7.	В	8.	A	9.	D	10.

Passage 82

1.	С	2.	В	3.	D	4.	A	5. E
6.	A	7.	E	8.	D	9.	D	10.

Passage 83

1. A	2. E	3. C	4. D	5. B
6. A	7. C	8. A	9.	10.

Passage 84

1.	В	2. A	3.	В	4. C	5. C
6.	C	7. D	8.	Е	9. E	10.

Passage 85

1. D	2. E	3. A	4. A	5. C
6. D	7. B	8.	9.	10.

1. D	2. B	3. B	4. E	5. A	
6. C	7. E	8. D	9.	10.	

Passage 87

1.	В	2.	С	3.	В	4. A	5. E
6.	D	7.	В	8.	С	9.	10.

Passage 88

1. C	2. A	3. D	4. B	5. C
6. A	7. B	8. D	9. C	10.

Passage 89

1. B	2. A	3. B	4. E	5. C	
6. E	7. B	8. C	9. A	10.	

Passage 90

1. C	2. E	3. E	4. E	5. D
6. C	7. B	8. D	9. D	10. A