

## SECTION III

Time—35 minutes

27 Questions

**Directions:** Each passage in this section is followed by a group of questions to be answered on the basis of what is stated or implied in the passage. For some of the questions, more than one of the choice could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question, and blacken the corresponding space on your answer sheet.

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.

- (5) 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
- (10) 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
- (15) 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
- (20) 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
- (25) 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.
- (30) Of the 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
- (35) 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
- (40) 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
- (45) 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
- (50) 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

(55) to processing facilities onshore, eliminating platforms.

1. Which one of the following best expresses the main ideas 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.

GO ON TO THE NEXT PAGE.



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" in line 47, 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 platforms 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 researched, 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 causes 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

GO ON TO THE NEXT PAGE.

To critics accustomed to the style of fifteenth-century narrative paintings by Italian artists from Tuscany, the Venetian examples of narrative paintings with religious subjects that

- (5) Patricia Fortini Brown analyzes in a recent book will come as a great surprise. While the Tuscan paintings present large-scale figures, clear narratives, and simple settings, the Venetians filled their pictures with dozens of small figures and
- (10) elaborate buildings, in addition to a wealth of carefully observed anecdotal detail often irrelevant to the paintings' principal subjects—the religious stories they narrate. Although it occasionally obscured these stories, this accumulation of
- (15) circumstantial detail from Venetian life—the inclusion of prominent Venetian citizens, for example—was considered appropriate to the narration of historical subjects and underlined the authenticity of the historical events depicted.
- (20) Indeed, Brown argues that the distinctive style of the Venetian paintings—what she calls the “eyewitness style”—was influenced by Venetian affinity for a strongly parochial type of historical writing, consisting almost exclusively of vernacular
- (25) chronicles of local events embroidered with all kinds of inconsequential detail.

And yet, while Venetian attitudes toward history that are reflected in their art account in part for the difference in style between Venetian and Tuscan

- (30) narrative paintings, Brown has overlooked some practical influences, such as climate. Tuscan churches are filled with frescoes that, in contrast to Venetian narrative paintings, consist mainly of large figures and easily recognized religious stories, as one would
- (35) expect of paintings that are normally viewed from a distance and are designed primarily to remind the faithful of their religious tenets. In Venice, where the damp climate is unsuited to fresco, narrative frescoes in churches were almost nonexistent, with
- (40) the result that Venetian artists and their public had no practical experience of the large-scale representation of familiar religious stories. Their model for painted stories was the cycle of secular historical paintings in the Venetian magistrate's
- (45) palace, which were indeed the counterpart of written history and were made all the more authoritative by a proliferation of circumstantial detail.

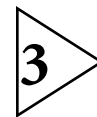
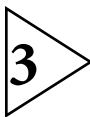
Moreover, because painting frescoes requires an

- (50) unusually sure hand, particularly in the representation of the human form, the development of drawing skill was central to artistic training in Tuscany, and by 1500 the public there tended to distinguish
- (55) artists on the basis of how well they could draw human figures. In Venice, a city virtually without frescoes, this kind of skill was acquired and appreciated much later. Gentile Bellini, for example, although regarded as one of the supreme painters of the day, was feeble at drawing. On the
- (60) other hand, the emphasis on architecture so evident

in the Venetian narrative paintings was something that local painters obviously prized, largely because painting architecture in perspective was seen as a particular test of the Venetian painter's skill.

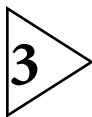
9. Which one of the following best states the main idea of the passage?
- (A) Tuscan painters' use of fresco explains the prominence of human figures in the narrative paintings that they produced during the fifteenth century.
- (B) In addition to fifteenth-century Venetian attitudes toward history, other factors may help to explain the characteristic features of Venetian narrative paintings with religious subjects produced during that period.
- (C) The inclusion of authentic detail from Venetian life distinguished fifteenth-century Venetian narrative paintings from those that were produced in Tuscany.
- (D) Venetian painters were generally more skilled at painting buildings than Tuscan painters were at drawing human forms.
- (E) The cycle of secular historical paintings in the Venetian magistrate's palace was the primary influence on fifteenth-century Venetian narrative paintings with religious subjects.
10. In the passage, the author is primarily concerned with
- (A) pointing out the superiority of one painting style over another
- (B) citing evidence that requires a reevaluation of a conventionally held view
- (C) discussing factors that explain a difference in painting styles
- (D) outlining the strengths and weaknesses of two opposing views regarding the evolution of a painting style
- (E) arguing for the irrelevance of one theory and for its replacement by a more plausible alternative

GO ON TO THE NEXT PAGE.



11. As it is described in the passage, Brown's explanation of the use of the eyewitness style in Venetian narrative painting suggests that
- (A) the painting of architecture in perspective requires greater drawing skill than does the representation of a human form in a fresco
  - (B) certain characteristics of a style of painting can reflect a style of historical writing that was common during the same period
  - (C) the eyewitness style in Venetian narrative paintings with religious subjects was largely the result of the influence of Tuscan artists who worked primarily in fresco
  - (D) the historical detail in Venetian narrative paintings with religious subjects can be traced primarily to the influence of the paintings in the Venetian magistrate's palace
  - (E) a style of painting can be dramatically transformed by a sudden influx of artists from another region
12. The author suggests that fifteenth-century Venetian narrative paintings with religious subjects were painted by artists who
- (A) were able to draw human figures with more skill after they were apprenticed to painters in Tuscany
  - (B) assumed that their paintings would typically be viewed from a distance
  - (C) were a major influence on the artists who produced the cycle of historical paintings in the Venetian magistrate's palace
  - (D) were reluctant to paint frescoes primarily because they lacked the drawing skill that painting frescoes required
  - (E) were better at painting architecture in perspective than they were at drawing human figures
13. The author implies that Venetian narrative paintings with religious subjects included the representation of elaborate buildings in part because
- (A) the ability to paint architecture in perspective was seen in Venice as proof of a painter's skill
  - (B) the subjects of such paintings were often religious stories
  - (C) large frescoes were especially conducive to representing architecture in perspective
  - (D) the architecture of Venice in the fifteenth century was more elaborate than was the architecture of Tuscany
  - (E) the paintings were imitations of a kind of historical writing that was popular in Tuscany
14. Which one of the following, if true, would most weaken the author's contention that fifteenth-century Venetian artists "had no practical experience of the large-scale representation of familiar religious stories" (lines 40–42)?
- (A) The style of secular historical paintings in the palace of the Venetian magistrate was similar to that of Venetian narrative paintings with religious subjects.
  - (B) The style of the historical writing produced by fifteenth-century Venetian authors was similar in its inclusion of anecdotal details to secular paintings produced during that century in Tuscany.
  - (C) Many of the artists who produced Venetian narrative paintings with religious subjects served as apprentices in Tuscany, where they had become familiar with the technique of painting frescoes.
  - (D) Few of the frescoes painted in Tuscany during the fifteenth century had secular subjects, and those that did often betrayed the artist's inability to represent elaborate architecture in perspective.
  - (E) Few of the Venetian narrative paintings produced toward the end of the fifteenth century show evidence of the enhanced drawing skill that characterized the paintings produced in Venice a century later.

GO ON TO THE NEXT PAGE.



Currently, legal scholars agree that in some cases legal rules do not specify a definite outcome. These scholars believe that such indeterminacy results from the vagueness of language: the boundaries of the application of a term are often unclear.

- (5) Nevertheless, they maintain that the system of legal rules by and large rests on clear core meanings that do determine definite outcomes for most cases. Contrary to this view, an earlier group of legal philosophers, called “realists,” argued that indeterminacy pervades every part of the law.
- (10)

The realists held that there is always a cluster of rules relevant to the decision in any litigated case.

- For example, deciding whether an aunt’s promise to pay her niece a sum of money if she refrained from smoking is enforceable would involve a number of rules regarding such issues as offer, acceptance, and revocation. Linguistic vagueness in any one of these rules would affect the outcome of the case, making possible multiple points of indeterminacy, not just one or two, in any legal case.
- (15)
- (20)

For the realists, an even more damaging kind of indeterminacy stems from the fact that in a common-law system based on precedent, a judge’s

- (25) decision is held to be binding on judges in subsequent similar cases. Judicial decisions are expressed in written opinions, commonly held to consist of two parts: the holding (the decision for or against the plaintiff and the essential grounds or legal reasons for it, that is, what subsequent judges are bound by), and the dicta (everything in an opinion not essential to the decision, for example, comments about points of law not treated as the basis of the outcome). The realists argued that in practice the common-law system treats the “holding/dicta” distinction loosely. They pointed out that even when the judge writing an opinion characterizes part of it as “the holding,” judges writing subsequent opinions, although unlikely to dispute the decision itself, are not bound by the original judge’s perception of what was essential to the decision. Later judges have tremendous leeway in being able to redefine the holding and the dicta in a precedential case. This leeway enables judges to choose which rules of law formed the basis of the decision in the earlier case. When judging almost any case, then, a judge can find a relevant precedential case which, in subsequent opinions, has been read by one judge as stating one legal rule, and by another judge as stating another, possibly contradictory one. A judge thus faces an indeterminate legal situation in which he or she has to choose which rules are to govern the case at hand.
- (30)
- (35)
- (40)
- (45)
- (50)

15. According to the passage, the realists argued that which one of the following is true of a common-law system?

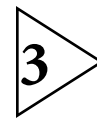
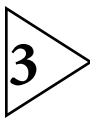
- (A) It gives rise to numerous situations in which the decisions of earlier judges are found to be in error by later judges.
- (B) It possesses a clear set of legal rules in theory, but in practice most judges are unaware of the strict meaning of those rules.
- (C) Its strength lies in the requirement that judges decide cases according to precedent rather than according to a set of abstract principles.
- (D) It would be improved if judges refrained from willfully misinterpreting the written opinions of prior judges.
- (E) It treats the difference between the holding and the dicta in a written opinion rather loosely in practice.

16. According to the passage, which one of the following best describes the relationship between a judicial holding and a judicial decision?

- (A) The holding is not commonly considered binding on subsequent judges, but the decision is.
- (B) The holding formally states the outcome of the case, while the decision explains it.
- (C) The holding explains the decision but does not include it.
- (D) The holding consists of the decision and the dicta.
- (E) The holding sets forth and justifies a decision.

17. The information in the passage suggests that the realists would most likely have agreed with which one of the following statements about the reaction of judges to past interpretations of a precedential case, each of which states a different legal rule?

- (A) The judges would most likely disagree with one or more of the interpretations and overturn the earlier judges’ decisions.
- (B) The judges might differ from each other concerning which of the interpretations would apply in a given case.
- (C) The judges probably would consider themselves bound by all the legal rules stated in the interpretations.
- (D) The judges would regard the lack of unanimity among interpretations as evidence that no precedents existed.
- (E) The judges would point out in their holdings the inherent contradictions arising from the earlier judges’ differing interpretations.



18. It can be inferred from the passage that most legal scholars today would agree with the realists that
- (A) linguistic vagueness can cause indeterminacy regarding the outcome of a litigated case
  - (B) in any litigated case, several different and possibly contradictory legal rules are relevant to the decision of the case
  - (C) the distinction between holding and dicta in a written opinion is usually difficult to determine in practice
  - (D) the boundaries of applicability of terms may sometimes be difficult to determine, but the core meanings of the terms are well established
  - (E) a common-law system gives judges tremendous leeway in interpreting precedents, and contradictory readings of precedential cases can usually be found
19. The passage suggests that the realists believed which one of the following to be true of the dicta in a judge's written opinion?
- (A) The judge writing the opinion is usually careful to specify those parts of the opinion he or she considers part of the dicta.
  - (B) The appropriateness of the judge's decision would be disputed by subsequent judges on the basis of legal rules expressed in the dicta.
  - (C) A consensus concerning what constitutes the dicta in a judge's opinion comes to be fixed over time as subsequent similar cases are decided.
  - (D) Subsequent judges can consider parts of what the original judge saw as the dicta to be essential to the original opinion.
  - (E) The judge's decision and the grounds for it are usually easily distinguishable from the dicta.
20. Which one of the following best describes the overall organization of the passage?
- (A) A traditional point of view is explained and problems arising from it are described.
  - (B) Two conflicting systems of thought are compared point for point and then evaluated.
  - (C) A legal concept is defined and arguments justifying that definition are refuted.
  - (D) Two viewpoints on an issue are briefly described and one of those viewpoints is discussed at greater length.
  - (E) A theoretical description of how a system develops is contrasted with the actual practices characterizing the system.
21. Which one of the following titles best reflects the content of the passage?
- (A) Legal Indeterminacy: The Debate Continues
  - (B) Holding Versus Dicta: A Distinction Without a Difference
  - (C) Linguistic Vagueness: Is It Circumscribed in Legal Terminology?
  - (D) Legal Indeterminacy: The Realist's View of Its Scope
  - (E) Legal Rules and the Precedential System: How Judges Interpret the Precedents

GO ON TO THE NEXT PAGE.



Years after the movement to obtain civil rights for black people in the United States made its most important gains, scholars are reaching for a theoretical perspective capable of clarifying its momentous developments. New theories of social movements are being discussed, not just among social psychologists, but also among political theorists.

- (10) Of the many competing formulations of the “classical” social psychological theory of social movement, three are prominent in the literature on the civil rights movement: “rising expectations,” “relative deprivation,” and “J-curve.” Each conforms to a causal sequence characteristic of classical social movement theory, linking some unusual condition, or “system strain,” to the generation of unrest. When these versions of the classical theory are applied to the civil rights movement, the source of strain is identified as a change in black socioeconomic status that occurred shortly before the widespread protest activity of the movement.

- (25) For example, the theory of rising expectations asserts that protest activity was a response to psychological tensions generated by gains experienced immediately prior to the civil rights movement. Advancement did not satisfy ambition, but created the desire for further advancement. Only slightly different is the theory of relative deprivation. Here the impetus to protest is identified as gains achieved during the premovement period, coupled with simultaneous failure to make any appreciable headway relative to the dominant group. The J-curve theory argues that the movement occurred because a prolonged period of rising expectations and gratification was followed by a sharp reversal.

- (40) Political theorists have been dismissive of these applications of classical theory to the civil rights movement. Their arguments rest on the conviction that, implicitly, the classical theory trivializes the political ends of movement participants, focusing rather on presumed psychological dysfunctions; reduction of complex social situations to simple paradigms of stimulus and response obviates the relevance of all but the shortest-term analysis. Furthermore, the theories lack predictive value: “strain” is always present to some degree, but social movement is not. How can we know which strain will provoke upheaval?

- (50) These very legitimate complaints having frequently been made, it remains to find a means of testing the strength of the theories. Problematically, while proponents of the various theories have contradictory interpretations of socioeconomic conditions leading to the civil rights movement, examination of various statistical records regarding the material status of black Americans yields ample evidence to support any of the three theories. The steady rise in median black family income supports

the rising expectations hypothesis; the stability of the economic position of black vis-à-vis white Americans lends credence to the relative deprivation interpretation; unemployment data are consistent with the J-curve theory. A better test is the comparison of each of these economic indicators with the frequency of movement-initiated events reported in the press; unsurprisingly, none correlates significantly with the pace of reports about movement activity.

- (65) 22. It can be inferred from the passage that the classical theory of social movement would not be appropriately applied to an annual general election because such an election
- (A) may focus on personalities rather than on political issues
  - (B) is not provoked primarily by an unusual condition
  - (C) may be decided according to the psychological needs of voters
  - (D) may not entail momentous developments
  - (E) actually entails two or more distinct social movements
- (70) 23. According to the passage, the “rising expectations” and “relative deprivation” models differ in which one of the following ways?
- (A) They predict different responses to the same socioeconomic conditions.
  - (B) They disagree about the relevance of psychological explanations for protest movements.
  - (C) They are meant to explain different kinds of social change.
  - (D) They describe the motivation of protesters in slightly different ways.
  - (E) They disagree about the relevance of socioeconomic status to system strain.
24. The author implies that political theorists attribute which one of the following assumptions to social psychologists who apply the classical theory of social movements to the civil rights movement?
- (A) Participants in any given social movement have conflicting motivations.
  - (B) Social movements are ultimately beneficial to society.
  - (C) Only strain of a socioeconomic nature can provoke a social movement.
  - (D) The political ends of movement participants are best analyzed in terms of participants’ psychological motivations.
  - (E) Psychological motivations of movement participants better illuminate the causes of social movements than do participants’ political motivations.



25. Which one of the following statements is supported by the results of the “better test” discussed in the last paragraph of the passage?
- (A) The test confirms the three classical theories discussed in the passage.
  - (B) The test provides no basis for deciding among the three classical theories discussed in the passage.
  - (C) The test shows that it is impossible to apply any theory of social movements to the civil rights movement.
  - (D) The test indicates that press coverage of the civil rights movement was biased.
  - (E) The test verifies that the civil rights movement generated socioeconomic progress.
26. The validity of the “better test” (line 65) as proposed by the author might be undermined by the fact that
- (A) the press is selective about the movement activities it chooses to cover
  - (B) not all economic indicators receive the same amount of press coverage
  - (C) economic indicators often contradict one another
  - (D) a movement-initiated event may not correlate significantly with any of the three economic indicators
  - (E) the pace of movement-initiated events is difficult to anticipate
27. The main purpose of the passage is to
- (A) persuade historians of the indispensability of a theoretical framework for understanding recent history
  - (B) present a new model of social movement
  - (C) account for a shift in a theoretical debate
  - (D) show the unity underlying the diverse classical models of social movement
  - (E) discuss the reasoning behind and shortcomings of certain social psychological theories

## S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.  
DO NOT WORK ON ANY OTHER SECTION IN THE TEST.