

## Test 11

## SECTION 1

Time—30 minutes

38 Questions

Directions: Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five lettered words or sets of words. Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole..

1. A good doctor knows that knowledge about medicine will continue to ----- and that, therefore, formal professional training can never be an ----- guide to good practice.
  - (A) vary. .adaptable
  - (B) change. .absolute
  - (C) ossify. .inflexible
  - (D) pertain. .invaluable
  - (E) intensify. .obsolescent
2. Foucault's rejection of the concept of continuity in Western thought, though radical, was not unique; he had ----- in the United States who, without knowledge of his work, developed parallel ideas.
  - (A) critics
  - (B) counterparts
  - (C) disciples
  - (D) readers
  - (E) publishers
3. In retrospect, Gordon's students appreciated her ----- assignments, realizing that such assignments were specifically designed to ----- original thought rather than to review the content of her course.
  - (A) didactic. .ingrain
  - (B) intimidating. .thwart
  - (C) difficult. .discourage
  - (D) conventional. .explicate
  - (E) enigmatic. .stimulate
4. In sharp contrast to the intense ----- of the young republic, with its utopian faith in democracy and hopes for eternal human progress, recent developments suggest a mood of almost unrelieved ----- .
  - (A) idealism. .cynicism
  - (B) individualism. .escapism
  - (C) sectarianism. .recklessness
  - (D) assertiveness. .ambition
  - (E) righteousness. .egalitarianism
5. Old age, even in cultures where it is -----, is often viewed with ----- .
  - (A) venerated. .ambivalence
  - (B) rare. .surprise
  - (C) ignored. .condescension
  - (D) feared. .dismay
  - (E) honored. .respect
6. Unlike the easily studied neutral and ionized ----- that compose the primary disk of the Milky Way itself, the components of the ----- surrounding our galaxy have proved more resistant to study.
  - (A) figments. .envelope
  - (B) essences. .fluctuations
  - (C) elements. .problems
  - (D) calculations. .perimeter
  - (E) materials. .region
7. Although normally -----, Alison felt so strongly about the issue that she put aside her reserve and spoke up at the committee meeting.
  - (A) diffident
  - (B) contentious
  - (C) facetious
  - (D) presumptuous
  - (E) intrepid

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Directions: In each of the following questions, a related pair of words or phrases is followed by five lettered pairs of words or phrases. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair.

8. SLIPPERY : ELUDE ::  
(A) dangerous : distract  
(B) hidden : alarm  
(C) temporary : erase  
(D) alluring : entice  
(E) overwrought : exclaim
9. RAINCOAT : RAIN ::  
(A) wages : inflation  
(B) prevention : cure  
(C) prediction : weather  
(D) insurance : loss  
(E) work : unemployment
10. DECIPHER : HIEROGLYPH ::  
(A) transcribe : recording  
(B) separate : component  
(C) transmute : metal  
(D) break : code  
(E) edit : text
11. FROND : FERN ::  
(A) pod : weed  
(B) needle : pine  
(C) thorn : rose  
(D) bulb : lily  
(E) root : potato
12. PILLORY : RIDICULE ::  
(A) badge : challenge  
(B) guillotine : execute  
(C) rope : chastise  
(D) knife : frighten  
(E) cell : blame
13. DITTY : ORATORIO ::  
(A) satire : parody  
(B) libretto : opera  
(C) anecdote : novel  
(D) fresco : panorama  
(E) sonnet : madrigal
14. OLFACTION : ODOR ::  
(A) classification : object  
(B) articulation : sound  
(C) predilection : observation  
(D) vision : detection  
(E) gustation : flavor
15. HUBRIS : PRIDE ::  
(A) flattery : praise  
(B) revenge : jealousy  
(C) whim : humor  
(D) awe : prestige  
(E) dread : courage
16. FRIEZE : BUILDING ::  
(A) illumination : manuscript  
(B) roof : foundation  
(C) shading : drawing  
(D) column : pillar  
(E) melody : rhythm

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**Directions:** Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.

Hank Morgan, the hero of Mark Twain's

*A Connecticut Yankee in King Arthur's Court*, is a nineteenth-century master mechanic who mysteriously awakens in

- (5) sixth-century Britain, launches what he hopes will be a peaceful revolution to transform Arthurian Britain into an industrialized modern democracy. The novel, written as a spoof of Thomas
- (10) Malory's *Morte d'Arthur*, a popular collection of fifteenth-century legends about sixth-century Britain, has been made into three upbeat movies and two musical comedies. None of these
- (15) translations to screen and stage, however, dramatize the anarchy at the conclusion of *A Connecticut Yankee*, which ends with the violent overthrow of Morgan's three-year-old progressive
- (20) order and his return to the nineteenth century, where he apparently commits suicide after being labeled a lunatic for his incoherent babblings about drawbridges and battlements. The
- (25) American public, although enjoying Twain's humor, evidently rejected his cynicism about technological advancement and change through peaceful revolution as antithetical
- (30) to the United States doctrine of progress.
17. According to the passage, which of the following is a true statement about the reception of *A Connecticut Yankee in King Arthur's Court* by the American public?
- (A) The public had too strong a belief in the doctrine of progress to accept the cynicism demonstrated at the conclusion of Twain's novel.
- (B) Twain's novel received little public recognition until the work was adapted for motion pictures and plays.
- (C) Although the public enjoyed Twain's humor, his use of both sixth-century and nineteenth-century characters confused many people.
- (D) The public has continued to enjoy Twain's story, but the last part of the novel seems too violent to American minds.
- (E) Because of the cynicism at the end of the book, the public rejected Twain's work in favor of the work of Thomas Malory.

18. The author of the passage characterizes Thomas Malory's *Morte d'Arthur* as which of the following?
- (A) The best-known and most authoritative collection of Arthurian tales written in the English language.
- (B) A collection of legends that have been used as the basis for three movies and two musical comedies.
- (C) A historical account of King Arthur, the sixth-century king of Britain.
- (D) A collection of legends about sixth-century Britain that have existed since at least the fifteenth century.
- (E) The novel about the life of King Arthur that inspired Twain's cynicism about nineteenth-century notions of progress.
19. The author uses the examples of "three upbeat movies and two musical comedies" primarily in order to demonstrate that well-written novels like *A Connecticut Yankee in King Arthur's Court*, regardless of their tone or theme, can be translated to the stage and screen.
- (B) the American public has traditionally been more interested in watching plays and movies than in reading novels like *A Connecticut Yankee in King Arthur's Court*
- (C) Twain's overall message in *A Connecticut Yankee in King Arthur's Court* is one that had a profound impact on the American public.
- (D) Twain's *A Connecticut Yankee in King Arthur's Court* has been a more popular version of the Arthurian legends than has Malory's *Morte d'Arthur*
- (E) *A Connecticut Yankee in King Arthur's Court* has been accepted as an enjoyable and humorous tale in versions that have omitted the anarchy at the novel's conclusion.
20. It can be inferred from the passage that Mark Twain would most probably have believed in which of the following statements about societal change?
- (A) Revolutions, in order to be successful in changing society, have to be carried out without violence.
- (B) Technological advancements are limited in their ability to change society and will likely bring liabilities along with any potential benefits.
- (C) The belief in the unmitigated benefits of societal change is antithetical to the American doctrine of progress.
- (D) The political system of sixth-century Britain was more conducive to societal change than was the political system of nineteenth-century America.
- (E) Technological advanced and peaceful revolutions, although sometimes accompanied by unintended violence and resistance to societal change, eventually lead to a more progressive order.

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The intensive work of materials scientists and solidstate physicists has given rise to a class of solids known as amorphous metallic alloys, (5) or glassy metals. There is a growing interest among theoretical and applied researchers alike in the structural properties of these materials.

When a molten metal or metallic alloy (10) is cooled to a solid, a crystalline structure is formed that depends on the particular alloy composition. In contrast, molten nonmetallic glass-forming materials, when cooled do not (15) assume a crystalline structure, but instead retain a structure somewhat like that of the liquid—an amorphous structure. At room temperature, the natural long-term tendency for both (20) types of materials is to assume the crystalline structure. The difference between the two is in the kinetics or rate of formation of the crystalline structure, which is controlled by (25) factors such as the nature of the chemical bonding and the ease with which atoms move relative to each other. Thus, in metals, the kinetics favors rapid formation of a crystalline structure, whereas in nonmetallic (30) glasses the rate of formation is so slow that almost any cooling rate is sufficient to result in an amorphous structure. For glassy metals to be (35) formed, the molten metal must be cooled extremely rapidly so that crystallization is suppressed. The structure of glassy metals is thought to be similar to that (40) of liquid metals. One of the first attempts to model the structure of a liquid was that by the late J. D. Bernal of the University of London, who packed hard spheres into a rubber (45) vessel in such a way as to obtain the maximum possible density. The resulting dense, random-packed structure was the basis for many attempts to model the structure of glassy metals.

(50) Calculations of the density of alloys based on Bernal-type models of the alloys metal component agreed fairly well with the experimentally determined values from measurements on alloys

(55) consisting of a noble metal together with a metalloid, such as alloys of palladium and silicon, or alloys consisting of iron, phosphorus, and carbon, although small discrepancies remained.

(60) One difference between real alloys and the hard spheres used in Bernal models is that the components of an alloy have different sizes, so that mode, based on two sizes of spheres are more (65) appropriate for a binary alloy, for example. The smaller metalloid atoms of the alloy might fit into holes in the dense, random-packed structure of the larger metal atoms.

(70) One of the most promising properties of glassy metals is their high strength combined with high malleability. In usual crystalline materials, one finds an inverse relation between the two (75) properties, whereas for many practical applications simultaneous presence of both properties is desirable. One residual obstacle to practical applications that is likely to be overcome (80) is the fact that glassy metals will crystallize at relatively low temperatures when heated slightly.

21. The author is primarily concerned with discussing

- (A) crystalline solids and their behavior at different temperatures
- (B) molten materials and the kinetics of the formation of their crystalline structure
- (C) glassy metals and their structural characteristics
- (D) metallic alloys and problems in determining their density
- (E) amorphous materials and their practical utilization

22. The author implies that the rate at which the molten materials discussed in the passage are cooled is a determinant of the

(A) chemical composition of the resulting solids  
 (B) strength of the chemical bonds that are formed  
 (C) kinetics of the materials' crystalline structure  
 (D) structure the materials assume  
 (E) stability of the materials' crystalline structure

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23. The author's speculation about the appropriateness of models using spheres of two sizes for binary alloys would be strongly supported if models using spheres of two sizes yielded values for density identical to

(A) values yielded by one-sphere models using the smaller spheres only  
 (B) values for density agreeing nearly perfectly with experimentally determined values  
 (C) values for density agreeing nearly perfectly with values yielded by models using spheres of three sizes  
 (D) significantly different values for density depending on the size ratio between the two kinds of spheres used  
 (E) the same values for density as the values for appropriately chosen models that use only medium-sized spheres

24. The author's attitude toward the prospects for the economic utilization of glassy metals is one of

(A) disinterest  
 (B) impatience  
 (C) optimism  
 (D) apprehension  
 (E) skepticism

25. According to the passage, which of the following determines the crystalline structure of a metallic alloy?

(A) At what rate the molten alloy is

cooled

(B) How rapid the rate of formation of the crystalline phase is  
 (C) How the different-sized atoms fit into a dense, random-packed structure  
 (D) What the alloy consists of and in what ratios  
 (E) At what temperature the molten alloy becomes solid

26. Which of the following best describes the relationship between the structure of liquid metals and the structure of glassy metals, as it is presented in the passage?

(A) The latter is an illustrative example of the former.  
 (B) The latter is a large-scale version of the former.  
 (C) The former is a structural elaboration of the latter.  
 (D) The former provides an instructive contrast to the latter.  
 (E) The former is a fair approximation of the latter.

27. It can be inferred from the passage that, theoretically, molten nonmetallic glasses assume a crystalline structure rather than an amorphous structure only if they are cooled

(A) very evenly, regardless of the rate  
 (B) rapidly, followed by gentle heating  
 (C) extremely slowly  
 (D) to room temperature  
 (E) to extremely low temperatures

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Directions: Each question below consists of a word printed in capital letters, followed by five lettered words or phrases. Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capital letters.

Since some of the questions require you to distinguish fine shades of meaning, be sure to consider all the choices before deciding which one is best.

28. EXACTITUDE :  
(A) terseness  
(B) dishonesty  
(C) imprecision  
(D) tendency to concede  
(E) lack of relevance
29. STYMIE :  
(A) capture  
(B) organize  
(C) reveal  
(D) gain  
(E) promote
30. DERIVATIVE :  
(A) polished  
(B) magnetic  
(C) creditable  
(D) recent  
(E) innovative
31. DISGORGE :  
(A) imprint  
(B) suture  
(C) convulse  
(D) ingest  
(E) enlarge
32. OBDURATE :  
(A) candid  
(B) amenable  
(C) talkative  
(D) optimistic  
(E) carefree
33. TOUT :  
(A) denounce  
(B) modify  
(C) restrain  
(D) adhere to  
(E) retreat from
34. LUCUBRATION :  
(A) cursory consideration  
(B) lengthy explanation  
(C) lucidity  
(D) rejection  
(E) inquisition
35. TRUCULENCE :  
(A) general competence  
(B) sporadic quirkiness  
(C) brittleness  
(D) kindness  
(E) fragility
36. ARREST :  
(A) inoculate  
(B) vitalize  
(C) reproduce  
(D) engage  
(E) retrieve
37. JUDICIOUSNESS :  
(A) deceptiveness  
(B) aloofness  
(C) unorthodoxy  
(D) uncertainty  
(E) indiscretion
38. BELLICOSE :  
(A) abashed  
(B) pacific  
(C) exemplary  
(D) ingenuous  
(E) platonic

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