

## Test 5

## SECTION 2

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. Having sufficient income of her own constituted for Alice ----- independence that made possible a degree of ----- in her emotional life as well.
  - (A) a material. .security
  - (B) a profound. .conformity
  - (C) a financial. .economy
  - (D) a psychological. .extravagance
  - (E) an unexpected. .uncertainty
2. Copyright and patent laws attempt to encourage innovation by ensuring that inventors are paid for creative work, so it would be ----- if expanded protection under these laws discouraged entrepreneurial innovation by increasing fears of lawsuits.
  - (A) desirable
  - (B) coincidental
  - (C) ironic
  - (D) natural
  - (E) sensible
3. Unfortunately, since courses in nutrition are often ----- medical school curriculums, a family physician is ----- to be an enlightening source of general information about diet.
  - (A) questioned by. .encouraged
  - (B) encountered among. .unable
  - (C) unappreciated by. .expected
  - (D) neglected in. .unlikely
  - (E) squeezed into. .intended
4. The success of science is due in great part to its emphasis on -----: the reliance on evidence rather than ----- and the willingness to draw conclusions even when they conflict with traditional beliefs.
  - (A) causality. .experimentation
  - (B) empiricism. .facts
  - (C) objectivity. .preconceptions
  - (D) creativity. .observation
  - (E) conservatism. .assumptions
5. James had idolized the professor so much for so long that even after lunching with her several times he remained quite ----- in her presence, and as a result, he could not really be himself
  - (A) pleased
  - (B) disregarded
  - (C) heartened
  - (D) relaxed
  - (E) inhibited
6. However ----- they might be, Roman poets were bound to have some favorite earlier author whom they would ----- .
  - (A) subservient. .imitate
  - (B) independent. .inspire
  - (C) original. .emulate
  - (D) creative. .admire
  - (E) talented. .neglect
7. Human nature and long distances have made exceeding the speed limit a ----- tradition in the state, so the legislators surprised no one when, acceding to public practice, they ----- increased penalties for speeding.
  - (A) disquieting. .endorsed
  - (B) long-standing. .considered
  - (C) controversial. .suggested
  - (D) cherished. .rejected
  - (E) hallowed. .investigated

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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. INSECT : PESTICIDE ::  
(A) antiseptic : germicide  
(B) preservative : fungicide  
(C) plant : herbicide  
(D) blood : coagulant  
(E) skin : astringent
9. FASCINATION : INTEREST ::  
(A) laughter : humor  
(B) adoration : fondness  
(C) loyalty : admiration  
(D) innocence : ignorance  
(E) violence : disaffection
10. MOSAIC : CERAMIC ::  
(A) sculpture : gallery  
(B) song : note  
(C) painting : brush  
(D) patchwork : cloth  
(E) seam : stitch
11. FOOT : PERAMBULATE ::  
(A) nose : pry  
(B) archive : accumulate  
(C) text : cite  
(D) door : shut  
(E) eye : observe
12. AGRARIAN : FARMING ::  
(A) urban : society  
(B) mercantile : trade  
(C) nautical : sailor  
(D) pastoral : pasture  
(E) global : region
13. GULLIBLE : CHICANERY ::  
(A) servile : domination  
(B) provincial : cosmopolitanism  
(C) adventurous : timidity  
(D) hypochondriacal : infection  
(E) placid : deliberation
14. LIST : DISCOGRAPHY ::  
(A) payment : receipt  
(B) blood : corpuscle  
(C) tool : hoe  
(D) music : note  
(E) amphibian : mammal
15. ALLOY : PURITY ::  
(A) standardize : conformity  
(B) compute : accuracy  
(C) variegate : diversity  
(D) thin : density  
(E) experiment : superiority
16. GRAMMAR : LANGUAGE ::  
(A) pitch : music  
(B) protocol : conduct  
(C) stanza : poetry  
(D) revision : speech  
(E) oratory : ceremony

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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.

It is their sensitive response to human circumstance that accounts for the persistence of certain universal ideas. Rabbi Meir, a second-century  
*Lines* scholar, admonished his disciples to look not at the  
 (5) pitcher but at its contents because, he stated, "Many a new pitcher has been found to be full of old wine."  
 This was his way of emphasizing the importance of the distinction between form and idea and of stressing that the integrity of an idea is more important than the  
 (10) form of its expression.

Creative ideas not only produce their own instruments of survival as time and circumstances demand, but permit the substitution of new forms for old under the pressure of changed circumstances.  
 (15) For example democracy, as an idea originated in ancient Greece and was carried from there to Western Europe and the Americas. But it did not retain the ancient Greek form: it passed through several reforming processes and exists today in many  
 (20) countries. Democratic governments differ in form because democracy is in principle dynamic and has therefore responded to local needs.

17. The author is primarily concerned with

- (A) illustrating the importance of a historical figure
- (B) discussing an important characteristic of human ideas
- (C) describing the history of the growth of democracy
- (D) contrasting ancient and modern views of the importance of creative ideas
- (E) evaluating the contribution of ancient Greece to modern government

18. According to the passage, democracy is an example of

- (A) a human circumstance that has molded creative ideas
- (B) an instrument of survival that has altered its original form
- (C) an attribute of a creative idea that has allowed that idea to persist
- (D) a creative idea that has persisted because of its adaptability
- (E) a reforming process that has culminated in the creation of modern governments

19. The "new pitcher" mentioned in line 6 is the equivalent of which of the following elements in the author's discussion of democracy (lines 15-22)?

- (A) Ancient Greece
- (B) The idea of democracy
- (C) A modern democratic government
- (D) A dynamic principles
- (E) The Greek form of democracy

20. It can be inferred from the passage that the author would disagree most with which of the following assertions?

- (A) Changing circumstances sometimes give rise to original ideas.
- (B) Creative ideas have universal applications.
- (C) Changing human needs influence universal ideas.
- (D) Democratic institutions are appropriate in the modern world.
- (E) An idea must be expressed in a traditional way.

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Before 1965 many scientists pictured the circulation of the ocean's water mass as consisting of large, slow-moving currents, such as the Gulf Stream. That view  
 Line based on 100 years of observations made around the  
 (5) globe produced only a rough approximation of the true circulation. But in the 1950's and the 1960's, researchers began to employ newly developed techniques and equipment including subsurface floats that move with ocean currents and emit identification signals, and  
 (10) ocean-current meters that record data for months at fixed locations in the ocean. These instruments disclosed an unexpected level of variability in the deep ocean. Rather than being characterized by smooth large-scale currents that change seasonally (if at all), the seas are dominated  
 (15) by what oceanographers call mesoscale fields: fluctuating energetic flows whose velocity can reach ten times the mean velocity of the major currents.

Mesoscale phenomena—the oceanic analogue of weather systems—open extend to distances of 100  
 (20) kilometers and persist for 100 days (weather systems generally extend about 1,000 kilometers and last 3 to 5 days in any given area). More than 90 percent of the kinetic energy of the entire ocean may be accounted for by mesoscale variability rather than by large-scale  
 (25) current's Mesoscale phenomena may, in fact, play a significant role in oceanic mixing air-sea interactions and but far-reaching climatic events such as El Niño, the atmospheric-oceanic disturbance in the equatorial Pacific that affects global weather patterns.

Unfortunately, it is not feasible to use conventional techniques to measure mesoscale fields. To measure them properly monitoring equipment would have to be laid out on a grid at intervals of at most 50 kilometers with sensors at each grid point lowered deep in the  
 (30) ocean and kept there for many months. Because using these techniques would be prohibitively expensive and time-consuming, it was proposed in 1979 that tomography be adapted to measuring the physical properties of the ocean. In medical tomography x-rays map the  
 (40) human body's density variations (and hence internal organs); the information from the x-rays, transmitted through the body along many different paths, is recombined to forth three-dimensional images of the body's interior. It is primarily this multiplicative increa-  
 (45) se in data obtained from the multipath transmission of signals that accounts for ocean-graphers' attraction to tomography; it allows the measurement of vast areas with relatively few instruments. Researchers reasoned that low-frequency sound waves because they are so  
 (50) well described mathematically and because even small perturbations in emitted sound waves can be detected, could be transmitted through the ocean over many different paths and that the properties of the ocean's interior—its temperature salinity, density, and speed of currents—could be deduced on the basis of how the ocean altered the signals. Their initial trials were highly successful, and ocean acoustic tomography was born.

21. According to the passage, scientists are able to use ocean acoustic tomography to deduce the properties of the ocean's interior in part because
  - (A) low-frequency sound waves are well described mathematically
  - (B) mesoscale phenomena are so large as to be easily detectable
  - (C) information from sound waves can be recombined more easily than information from x-ray
  - (D) tomography is better suited to measuring mesoscale phenomena than to measuring small-scale systems
  - (E) density variations in the ocean are mathematically predictable
22. The passage suggests that medical tomography operates on the principle that
  - (A) x-rays are superior to sound waves for producing three-dimensional images
  - (B) sound waves are altered as they pass through regions of varying density
  - (C) images of the body's interior can be produced by analyzing a single x-ray transmission through the body
  - (D) the varying densities within the human body allow x-rays to map the internal organs
  - (E) information from x-rays and sound waves can be combined to produce a highly detailed image of the body's interior
23. Which of the following is most similar to medical tomography as it is described in the passage?
  - (A) The use of ocean-current meters to determine the direction and velocity of the ocean's mesoscale fields
  - (B) The use of earthquake shock-wave data collected at several different locations and combined to create a three-dimensional image of the Earth's interior
  - (C) The use of a grid-point sensory system to map global weather patterns
  - (D) The use of subsurface floats to map large-scale circulation in the ocean
  - (E) The use of computer technology to halt the progress of a particular disease within the human body's internal organs

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24. The author mentions El Niño primarily in order to emphasize which of the following points?
- (A) The brief duration of weather patterns
  - (B) The variability of mesoscale phenomena
  - (C) The difficulty of measuring the ocean's large-scale currents
  - (D) The effectiveness of low-frequency sound waves in mapping the ocean
  - (E) The possible impact of mesoscale fields on weather conditions
25. Which of the following best describes the organization of the third paragraph of the passage?
- (A) A theory is proposed considered and then amended
  - (B) Opposing views are presented elaborated and then reconciled
  - (C) A problem is described, then a solution is discussed and its effectiveness is affirmed
  - (D) An argument is advanced, then refuted, and an alternative is suggested
  - (E) A hypothesis is presented, qualified, and then reaffirmed
26. The passage suggests that which of the following would be true if the ocean's circulation consisted primarily of large, slow-moving currents?
- (A) The influence of mesoscale fields on global weather patterns would remain the same.
  - (B) Large-scale currents would exhibit more variability than is actually observed.
  - (C) The majority of the ocean's kinetic energy would be derived from mesoscale fields.
  - (D) Atmospheric-oceanic disturbances such as El Niño would occur more often.
  - (E) Conventional measuring techniques would be a feasible method of studying the physical properties of the ocean
27. Which of the following, if presented as the first sentence of a succeeding paragraph, would most logically continue the discussion presented in the passage?
- (A) Timekeeping in medical tomography must be precise because the changes in travel time caused by density fluctuations are slight.
  - (B) To understand how ocean acoustic tomography works, it is necessary to know how sound travels in the ocean.
  - (C) Ships are another possibility, but they would need to stop every 50 kilometers to lower measuring instruments.
  - (D) These variations amount to only about 2 to 3 percent of the average speed of sound in water which is about 1,500 meters per second.
  - (E) The device used in medical tomography emits a specially coded signal easily distinguishable from background noise.

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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. DISDAIN :  
(A) draw out  
(B) refer to  
(C) confer about  
(D) treat favorably  
(E) work diligently
29. INDUBITABLE :  
(A) skeptical  
(B) questionable  
(C) anticipated  
(D) optional  
(E) undisclosed
30. CURMUDGEON :  
(A) talented professional  
(B) agreeable person  
(C) useful artifact  
(D) recent acquaintance  
(E) festival occasion
31. MOGUL :  
(A) iota  
(B) outlaw  
(C) nonentity  
(D) city dweller  
(E) conscientious worker
32. CONCATENATE :  
(A) liquidate  
(B) vacillate  
(C) initiate  
(D) moderate  
(E) separate
33. PROMULGATE :  
(A) keep secret  
(B) render difficult  
(C) lose control  
(D) make worse  
(E) single out
34. GOAD :  
(A) ameliorate  
(B) lull  
(C) exonerate  
(D) welcome  
(E) compliment
35. PROLIXITY :  
(A) allusiveness  
(B) legibility  
(C) inanity  
(D) conciseness  
(E) equivocation
36. SYNCHRONOUS :  
(A) involuntary  
(B) noncontemporaneous  
(C) hereditary  
(D) disintegrating  
(E) aberrant
37. SPURIOUS :  
(A) tentative  
(B) severe  
(C) conventional  
(D) understated  
(E) genuine
38. DESULTORY :  
(A) carefully planned  
(B) cheerfully stated  
(C) flattering  
(D) docile  
(E) correct

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.