

TEST 1

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. Nonviolent demonstrations often create such tensions that a community that has constantly refused to _____ its injustices is forced to correct them: the injustices can no longer be _____.

(A) acknowledge..ignored
(B) decrease..verified
(C) tolerate..accepted
(D) address..eliminated
(E) explain..discussed

2. Since 1813 reaction to Jane Austen's novels has oscillated between _____ and condescension; but in general later writers have esteemed her works more highly than did most of her literary _____.

(A) dismissal..admirers
(B) adoration..contemporaries
(C) disapproval..readers
(D) indifference..followers
(E) approbation..precursors

3. There are, as yet, no vegetation types or ecosystems whose study has been _____ to the extent that they no longer _____ ecologists.

(A) perfected..hinder
(B) exhausted..interest
(C) prolonged..require
(D) prevented..challenge
(E) delayed..benefit

4. Under ethical guidelines recently adopted by the National Institutes of Health, human genes are to be manipulated only to correct diseases for which _____ treatments are unsatisfactory.

(A) similar (B) most (C) dangerous
(D) uncommon (E) alternative

5. It was her view that the country's problems had been _____ by foreign technocrats, so that to invite them to come back would be counterproductive.

(A) foreseen (B) attacked (C) ascertained
(D) exacerbated (E) analyzed

6. Winsor McCay, the cartoonist, could draw with incredible _____: his comic strip about Little Nemo was characterized by marvelous draftsmanship and sequencing.

(A) sincerity (B) efficiency (C) virtuosity
(D) rapidity (E) energy

7. The actual _____ of Wilson's position was always _____ by his refusal to compromise after having initially agreed to negotiate a settlement.

(A) outcome..foreshadowed
(B) logic..enhanced
(C) rigidity..betrayed
(D) uncertainty..alleviated
(E) cowardice..highlighted

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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. SEDATIVE : DROWSINESS ::

- (A) epidemic : contagiousness
- (B) vaccine : virus
- (C) laxative : drug
- (D) anesthetic : numbness
- (E) therapy : psychosis

9. LAWYER : COURTROOM ::

- (A) participant : team
- (B) commuter : train
- (C) gladiator : arena
- (D) senator : caucus
- (E) patient : ward

10. CURIOSITY : KNOW ::

- (A) temptation : conquer
- (B) starvation : eat
- (C) wanderlust : travel
- (D) humor : laugh
- (E) survival : live

11. FRUGAL : MISERLY ::

- (A) confident : arrogant
- (B) courageous : pugnacious
- (C) famous : aggressive
- (D) rash : foolhardy
- (E) quiet : timid

12. ANTIDOTE : POISON ::

- (A) cure : recovery
- (B) narcotic : sleep
- (C) stimulant : relapse
- (D) tonic : lethargy
- (E) resuscitation : breathing

13. STYGIAN : DARK ::

- (A) abysmal : low
- (B) cogent : contentious
- (C) fortuitous : accidental
- (D) reckless : threatening
- (E) cataclysmic : doomed

14. WORSHIP : SACRIFICE ::

- (A) generation : pyre
- (B) burial : mortuary
- (C) weapon : centurion
- (D) massacre : invasion
- (E) prediction : augury

15. EVANESCENT : DISAPPEAR ::

- (A) transparent : penetrate
- (B) onerous : struggle
- (C) feckless : succeed
- (D) illusory : exist
- (E) pliant : yield

16. UPBRAID : REPROACH ::

- (A) dote : like
- (B) lag : stray
- (C) vex : please
- (D) earn : desire
- (E) recast : explain

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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.

Line
(5) It has been known for many decades that the appearance of sunspots is roughly periodic, with an average cycle of eleven years. Moreover, the incidence of solar flares and the flux of solar cosmic rays, ultraviolet radiation, and x-radiation all vary directly with the sunspot cycle. But after more than a century of investigation, the relation of these and other phenomena, known collectively as the solar-activity cycle, to terrestrial weather and climate remains unclear. For example, the sunspot cycle and the allied magnetic-polarity cycle have been linked to periodicities discerned in records of such variables as rainfall, temperature, and winds. Invariably, however, the relation is weak, and commonly of dubious statistical significance.

15) Effects of solar variability over longer terms have also been sought. The absence of recorded sunspot activity in the notes kept by European observers in the late seventeenth and early eighteenth centuries has led some scholars to postulate a brief cessation of sunspot activity at that time (a period called the Maunder minimum). The Maunder minimum has been linked to a span of unusual cold in Europe extending from the sixteenth to the early nineteenth centuries. The reality of the Maunder minimum has yet to be established, however, especially since the records that Chinese naked-eye observers of solar activity made at that time appear to contradict it. Scientists have also sought evidence of long-term solar periodicities by examining indirect climatological data, such as fossil records of the thickness of ancient tree rings. These studies, however, failed to link unequivocally terrestrial climate and the solar-activity cycle, or even to confirm the cycle's past existence.

35) If consistent and reliable geological or archaeological evidence tracing the solar-activity cycle in the distant past could be found, it might also resolve an important issue in solar physics: how to model solar activity. Currently, there are two models of solar activity. The first supposes that the Sun's internal motions (caused by rotation and convection) interact with its large-scale magnetic field to produce a dynamo, a device in which mechanical energy is converted into the energy of a magnetic field. In short, the Sun's large-scale magnetic field is taken to be self-sustaining, so that the solar-activity cycle it drives would be maintained with little overall change for perhaps billions of years. The alternative explanation supposes that the Sun's large-scale magnetic field is a remnant of the field the Sun acquired when it formed, and is not sustained against decay. In this model, the solar mechanism dependent on the Sun's magnetic field runs down more quickly. Thus, the characteristics of the solar-activity cycle could be expected to change over a long period of time. Modern solar observations span too short a time to reveal whether present cyclical solar activity is a long-lived feature of the Sun, or merely a transient phenomenon.

17. The author focuses primarily on

- (A) presenting two competing scientific theories concerning solar activity and evaluating geological evidence often cited to support them
- (B) giving a brief overview of some recent scientific developments in solar physics and assessing their impact on future climatological research
- (C) discussing the difficulties involved in linking terrestrial phenomena with solar activity and indicating how resolving that issue could have an impact on our understanding of solar physics
- (D) pointing out the futility of a certain line of scientific inquiry into the terrestrial effects of solar activity and recommending its abandonment in favor of purely physics-oriented research
- (E) outlining the specific reasons why a problem in solar physics has not yet been solved and faulting the overly theoretical approach of modern physicists

18. Which of the following statements about the two models of solar activity, as they are described in lines 37-55, is accurate?

- (A) In both models cyclical solar activity is regarded as a long-lived feature of the Sun, persisting with little change over billions of years.
- (B) In both models the solar-activity cycle is hypothesized as being dependent on the large-scale solar magnetic field.
- (C) In one model the Sun's magnetic field is thought to play a role in causing solar activity, whereas in the other model it is not.
- (D) In one model solar activity is presumed to be unrelated to terrestrial phenomena, whereas in the other model solar activity is thought to have observable effects on the Earth.
- (E) In one model cycles of solar activity with periodicities longer than a few decades are considered to be impossible, whereas in the other model such cycles are predicted.

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19. According to the passage, late seventeenth- and early eighteenth-century Chinese records are important for which of the following reasons?
- (A) They suggest that the data on which the Maunder minimum was predicated were incorrect.
 - (B) They suggest that the Maunder minimum cannot be related to climate.
 - (C) They suggest that the Maunder minimum might be valid only for Europe.
 - (D) They establish the existence of a span of unusually cold weather worldwide at the time of the Maunder minimum.
 - (E) They establish that solar activity at the time of the Maunder minimum did not significantly vary from its present pattern.
20. The author implies which of the following about currently available geological and archaeological evidence concerning the solar-activity cycle?
- (A) It best supports the model of solar activity described in lines 37-45.
 - (B) It best supports the model of solar activity described in lines 45-52.
 - (C) It is insufficient to confirm either model of solar activity described in the third paragraph.
 - (D) It contradicts both models of solar activity as they are presented in the third paragraph.
 - (E) It disproves the theory that terrestrial weather and solar activity are linked in some way.
21. It can be inferred from the passage that the argument in favor of the model described in lines 37-45 would be strengthened if which of the following were found to be true?
- (A) Episodes of intense volcanic eruptions in the distant past occurred in cycles having very long periodicities.
 - (B) At the present time the global level of thunderstorm activity increases and decreases in cycles with periodicities of approximately 11 years.
 - (C) In the distant past cyclical climatic changes had periodicities of longer than 200 years.
 - (D) In the last century the length of the sunspot cycle has been known to vary by as much as 2 years from its average periodicity of 11 years.
 - (E) Hundreds of millions of years ago, solar-activity cycles displayed the same periodicities as do present-day solar-activity cycles.
22. It can be inferred from the passage that Chinese observations of the Sun during the late seventeenth and early eighteenth centuries
- (A) are ambiguous because most sunspots cannot be seen with the naked eye
 - (B) probably were made under the same weather conditions as those made in Europe
 - (C) are more reliable than European observations made during this period
 - (D) record some sunspot activity during this period
 - (E) have been employed by scientists seeking to argue that a change in solar activity occurred during this period
23. It can be inferred from the passage that studies attempting to use tree-ring thickness to locate possible links between solar periodicity and terrestrial climate are based on which of the following assumptions?
- (A) The solar-activity cycle existed in its present form during the time period in which the tree rings grew.
 - (B) The biological mechanisms causing tree growth are unaffected by short-term weather patterns.
 - (C) Average tree-ring thickness varies from species to species.
 - (D) Tree-ring thicknesses reflect changes in terrestrial climate.
 - (E) Both terrestrial climate and the solar-activity cycle randomly affect tree-ring thickness.

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Line
15) The common belief of some linguists that each language is a perfect vehicle for the thoughts of the nation speaking it is in some ways the exact counterpart of the conviction of the Manchester school of economics that supply and demand will regulate everything for the best. Just as economists were blind to the numerous cases in which the law of supply and demand left actual wants unsatisfied, so also many linguists are deaf to those instances in which the very nature of a language calls forth misunderstandings in everyday conversation, and in which, consequently, a word has to be modified or defined in order to present the idea intended by the speaker: "He took his stick—no, not John's, but his own." No language is perfect, and if we admit this truth, we must also admit that it is not unreasonable to investigate the relative merits of different languages or of different details in languages.

24. The primary purpose of the passage is to
- (A) analyze an interesting feature of the English language
 - (B) refute a belief held by some linguists
 - (C) show that economic theory is relevant to linguistic study
 - (D) illustrate the confusion that can result from the improper use of language
 - (E) suggest a way in which languages can be made more nearly perfect

25. The misunderstanding presented by the author in lines 13-14 is similar to which of the following?
- I. X uses the word "you" to refer to a group, but Y thinks that X is referring to one person only.
 - II. X mistakenly uses the word "anomaly" to refer to a typical example, but Y knows that "anomaly" means "exception."
 - III. X uses the word "bachelor" to mean "unmarried man," but Y mistakenly thinks that bachelor means "unmarried woman."
- (A) I only
 - (B) II only
 - (C) III only
 - (D) I and II only
 - (E) II and III only

26. In presenting the argument, the author does all of the following EXCEPT
- (A) give an example
 - (B) draw a conclusion
 - (C) make a generalization
 - (D) make a comparison
 - (E) present a paradox
27. Which of the following contributes to the misunderstanding described by the author in lines 13-14?
- (A) It is unclear whom the speaker of the sentence is addressing.
 - (B) It is unclear to whom the word "his" refers the first time it is used.
 - (C) It is unclear to whom the word "his" refers the second time it is used.
 - (D) The meaning of "took" is ambiguous.
 - (E) It is unclear to whom "He" refers.

GO ON TO THE NEXT PAGE.

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. FALLACY: (A) personal philosophy
(B) imaginative idea (C) unconfirmed theory
(D) tentative opinion (E) valid argument
29. DIVULGE: (A) keep secret
(B) evaluate by oneself (C) refine
(D) restore (E) copy
30. BOYCOTT: (A) extort (B) underwrite
(C) underbid (D) stipulate (E) patronize
31. ADULTERATION: (A) consternation
(B) purification (C) normalization
(D) approximation (E) rejuvenation

32. DEPOSITION: (A) process of congealing
(B) process of distilling (C) process of eroding
(D) process of evolving (E) process of condensing
33. ENERVATE: (A) recuperate (B) resurrect
(C) renovate (D) gather (E) strengthen
34. LOQUACIOUS: (A) tranquil (B) skeptical
(C) morose (D) taciturn (E) witty
35. REPINE: (A) intensify (B) excuse
(C) express joy (D) feel sure (E) rush forward
36. VENERATION: (A) derision (B) blame
(C) avoidance (D) ostracism (E) defiance
37. INVETERATE: (A) casual (B) public
(C) satisfactory (D) trustworthy
(E) sophisticated
38. UNDERMINE: (A) submerge (B) supersede
(C) overhaul (D) undergird (E) intersperse

SECTION 4

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. The senator's reputation, though _____ by false allegations of misconduct, emerged from the ordeal _____.
(A) shaken..unscathed
(B) destroyed..intact
(C) damaged..impaired
(D) impugned..unclear
(E) tarnished..sullied
2. This poetry is not _____; it is more likely to appeal to an international audience than is poetry with strictly regional themes.
(A) familiar (B) democratic (C) technical
(D) complex (E) provincial
3. Experienced employers recognize that business students who can _____ different points of view are ultimately more effective as managers than are the brilliant and original students who _____ dogmatically to their own formulations.
(A) discredit..revert (B) assimilate..adhere
(C) impose..refer (D) disregard..incline
(E) advocate..relate
4. Poe's _____ reviews of contemporary fiction, which often find great merit in otherwise _____ literary gems, must make us respect his critical judgment in addition to his well-known literary talent.
(A) thorough..completed
(B) petulant..unpopular
(C) insightful..unappreciated
(D) enthusiastic..acclaimed
(E) harsh..undeserving
5. The significance of the Magna Carta lies not in its _____ provisions, but in its broader impact: it made the king subject to the law.
(A) specific (B) revolutionary (C) implicit
(D) controversial (E) finite
6. The theory of cosmic evolution states that the universe, having begun in a state of simplicity and _____, has _____ into great variety.
(A) equilibrium..modulated
(B) homogeneity..differentiated
(C) contrast..metamorphosed
(D) proportion..accelerated
(E) intelligibility..developed
7. Not wishing to appear _____, the junior member of the research group refrained from _____ any criticism of the senior members' plan for dividing up responsibility for the entire project.
(A) reluctant..evaluating
(B) inquisitive..offering
(C) presumptuous..venturing
(D) censorious..undercutting
(E) moralistic..observing

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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. FRAGILE : BREAK ::

- (A) invisible : see
- (B) erratic : control
- (C) flammable : burn
- (D) noxious : escape
- (E) industrial : manufacture

9. MUTTER : INDISTINCT ::

- (A) demand : obedient
- (B) plead : obligatory
- (C) flatter : commendable
- (D) drone : monotonous
- (E) confirm : proven

10. FAULTFINDER : CRITICIZE ::

- (A) luminary : recognize
- (B) athlete : cheer
- (C) arbitrator : mediate
- (D) pharmacist : prescribe
- (E) dawdler : toil

11. PEST : IRKSOME ::

- (A) salesclerk : courteous
- (B) expert : proficient
- (C) enigma : unexpected
- (D) leader : nondescript
- (E) accuser : indicted

12. PROLOGUE : NOVEL ::

- (A) preamble : statute
- (B) sketch : drawing
- (C) movement : symphony
- (D) index : book
- (E) blueprint : building

13. EXPAND : VOLUME ::

- (A) ascend : flight
- (B) proliferate : number
- (C) bend : flexibility
- (D) cool : temperature
- (E) deflect : heading

14. CONTIGUOUS : ABUT ::

- (A) possible : occur
- (B) simultaneous : coincide
- (C) comprehensive : except
- (D) synthetic : create
- (E) constant : stabilize

15. SUITCASE : LUGGAGE ::

- (A) gift : package
- (B) necklace : garment
- (C) room : house
- (D) hat : millinery
- (E) faucet : sink

16. PROHIBITIVE : PURCHASE ::

- (A) preventive : heal
- (B) laudatory : praise
- (C) admonitory : fear
- (D) peremptory : dispute
- (E) imperative : comply

GO ON TO THE NEXT PAGE.

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.

Line
(5) It is frequently assumed that the mechanization of work has a revolutionary effect on the lives of the people who operate the new machines and on the society into which the machines have been introduced. For example, it has been suggested that the employment of women in industry took them out of the household, their traditional sphere, and fundamentally altered their position in society. In the nineteenth century, when women began to enter factories, Jules Simon, a French politician, warned that by doing so, women would give up their femininity. Friedrich Engels, however, predicted that women would be liberated from the "social, legal, and economic subordination" of the family by technological developments that made possible the recruitment of "the whole female sex . . . into public industry." Observers thus differed concerning the social desirability of mechanization's effects, but they agreed that it would transform women's lives.

(10) Historians, particularly those investigating the history of women, now seriously question this assumption of transforming power. They conclude that such dramatic technological innovations as the spinning jenny, the sewing machine, the typewriter, and the vacuum cleaner have not resulted in equally dramatic social changes in (15) women's economic position or in the prevailing evaluation of women's work. The employment of young women in textile mills during the Industrial Revolution was largely an extension of an older pattern of employment of young, single women as domestics. It was not (20) the change in office technology, but rather the separation of secretarial work; previously seen as an apprenticeship for beginning managers, from administrative work that in the 1880's created a new class of "dead-end" jobs, thenceforth considered "women's work." The (25) increase in the numbers of married women employed outside the home in the twentieth century had less to do with the mechanization of housework and an increase in leisure time for these women than it did with their own economic necessity and with high marriage rates that (30) shrank the available pool of single women workers, previously, in many cases, the only women employers would hire.

(35) Women's work has changed considerably in the past 200 years, moving from the household to the office or (40) the factory, and later becoming mostly white-collar instead of blue-collar work. Fundamentally, however, the conditions under which women work have changed little since before the Industrial Revolution: the segregation of occupations by gender, lower pay for women (45) as a group, jobs that require relatively low levels of skill and offer women little opportunity for advancement all persist, while women's household labor remains demanding. Recent historical investigation has led to a (50) major revision of the notion that technology is always inherently revolutionary in its effects on society. Mechanization may even have slowed any change in the traditional position of women both in the labor market and in the home.

17. Which of the following statements best summarizes the main idea of the passage?
- (A) The effects of the mechanization of women's work have not borne out the frequently held assumption that new technology is inherently revolutionary.
- (B) Recent studies have shown that mechanization revolutionizes a society's traditional values and the customary roles of its members.
- (C) Mechanization has caused the nature of women's work to change since the Industrial Revolution.
- (D) The mechanization of work creates whole new classes of jobs that did not previously exist.
- (E) The mechanization of women's work, while extremely revolutionary in its effects, has not, on the whole, had the deleterious effects that some critics had feared.
18. The author mentions all of the following inventions as examples of dramatic technological innovations EXCEPT the
- (A) sewing machine (B) vacuum cleaner
(C) typewriter (D) telephone
(E) spinning jenny
19. It can be inferred from the passage that, before the Industrial Revolution, the majority of women's work was done in which of the following settings?
- (A) Textile mills (B) Private households
(C) Offices (D) Factories (E) Small shops

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20. It can be inferred from the passage that the author would consider which of the following to be an indication of a fundamental alteration in the conditions of women's work?
- (A) Statistics showing that the majority of women now occupy white-collar positions
(B) Interviews with married men indicating that they are now doing some household tasks
(C) Surveys of the labor market documenting the recent creation of a new class of jobs in electronics in which women workers outnumber men four to one
(D) Census results showing that working women's wages and salaries are, on the average, as high as those of working men
(E) Enrollment figures from universities demonstrating that increasing numbers of young women are choosing to continue their education beyond the undergraduate level
21. The passage states that, before the twentieth century, which of the following was true of many employers?
- (A) They did not employ women in factories.
(B) They tended to employ single rather than married women.
(C) They employed women in only those jobs that were related to women's traditional household work.
(D) They resisted technological innovations that would radically change women's roles in the family.
(E) They hired women only when qualified men were not available to fill the open positions.
22. It can be inferred from the passage that the author most probably believes which of the following to be true concerning those historians who study the history of women?
- (A) Their work provides insights important to those examining social phenomena affecting the lives of both sexes.
(B) Their work can only be used cautiously by scholars in other disciplines.
(C) Because they concentrate only on the role of women in the workplace, they draw more reliable conclusions than do other historians.
(D) While highly interesting, their work has not had an impact on most historians' current assumptions concerning the revolutionary effect of technology in the workplace.
(E) They oppose the further mechanization of work, which, according to their findings, tends to perpetuate existing inequalities in society.
23. Which of the following best describes the function of the concluding sentence of the passage?
- (A) It sums up the general points concerning the mechanization of work made in the passage as a whole.
(B) It draws a conclusion concerning the effects of the mechanization of work which goes beyond the evidence presented in the passage as a whole.
(C) It restates the point concerning technology made in the sentence immediately preceding it.
(D) It qualifies the author's agreement with scholars who argue for a major revision in the assessment of the impact of mechanization on society.
(E) It suggests a compromise between two seemingly contradictory views concerning the effects of mechanization on society.

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(This passage is excerpted from an article that was published in 1982.)

Line
(5) Warm-blooded animals have elaborate physiological controls to maintain constant body temperature (in humans, 37° C). Why then during sickness should temperature rise, apparently increasing stress on the infected organism? It has long been known that the level of serum iron in animals falls during infection. Garibaldi first suggested a relationship between fever and iron. He found that microbial synthesis of siderophores—
(10) substances that bind iron—in bacteria of the genus *Salmonella* declined at environmental temperatures above 37° C and stopped at 40.3° C. Thus, fever would make it more difficult for an infecting bacterium to acquire iron and thus to multiply. Cold-blooded animals were used to test this hypothesis because their body
(15) temperature can be controlled in the laboratory. Kluger reported that of iguanas infected with the potentially lethal bacterium *A. hydrophilia*, more survived at temperatures of 42° C than at 37° C, even though healthy animals prefer the lower temperature. When animals at 42° C were injected with an iron solution, however, mortality rates increased significantly.
(20) Research to determine whether similar phenomena occur in warm-blooded animals is sorely needed.

24. The passage is primarily concerned with attempts to determine
- (A) the role of siderophores in the synthesis of serum iron
 - (B) new treatments for infections that are caused by *A. hydrophilia*
 - (C) the function of fever in warm-blooded animals
 - (D) the mechanisms that ensure constant body temperature
 - (E) iron utilization in cold-blooded animals
25. According to the passage, Garibaldi determined which of the following?
- (A) That serum iron is produced through microbial synthesis
 - (B) That microbial synthesis of siderophores in warm-blooded animals is more efficient at higher temperatures
 - (C) That only iron bound to other substances can be used by bacteria
 - (D) That there is a relationship between the synthesis of siderophores in bacteria of the genus *Salmonella* and environmental temperature
 - (E) That bacteria of the genus *Salmonella* require iron as a nutrient

26. Which of the following can be inferred about warm-blooded animals solely on the basis of information in the passage?

- (A) The body temperatures of warm-blooded animals cannot be easily controlled in the laboratory.
- (B) Warm-blooded animals require more iron in periods of stress than they do at other times.
- (C) Warm-blooded animals are more comfortable at an environmental temperature of 37° C than they are at a temperature of 42° C.
- (D) In warm-blooded animals, bacteria are responsible for the production of siderophores, which, in turn, make iron available to the animal.
- (E) In warm-blooded animals, infections that lead to fever are usually traceable to bacteria.

27. If it were to be determined that "similar phenomena occur in warm-blooded animals" (lines 21-22), which of the following, assuming each is possible, is likely to be the most effective treatment for warm-blooded animals with bacterial infections?

- (A) Administering a medication that lowers the animals' body temperature
- (B) Injecting the animals with an iron solution
- (C) Administering a medication that makes serum iron unavailable to bacteria
- (D) Providing the animals with reduced-iron diets
- (E) Keeping the animals in an environment with temperatures higher than 37° C

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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. PERTAIN: (A) be apathetic (B) be illegitimate
(C) be irrevocable (D) be incongruous
(E) be irrelevant
29. FREQUENCY: (A) unity (B) rarity
(C) gradualness (D) persistency
(E) moderation
30. AMALGAMATE: (A) study (B) circulate
(C) reduce (D) endure (E) separate
31. ARRHYTHMIC: (A) timely (B) subordinate
(C) terminal (D) lacking precision
(E) exhibiting regularity
32. BLITHE: (A) conceited (B) dim (C) sturdy
(D) laconic (E) grave
33. POLEMICAL: (A) imitative (B) lavish
(C) conciliatory (D) attractive (E) modest
34. PRECIPITATE: (A) deliberate (B) determined
(C) dissident (D) desperate (E) divided
35. DEFERENCE: (A) aversion (B) resignation
(C) suspicion (D) inattention (E) contempt
36. UNTOWARD: (A) direct (B) decisive
(C) necessary (D) favorable and anticipated
(E) confident and prepared
37. OPPROBRIOS: (A) meretricious
(B) innocuous (C) invulnerable
(D) irreproachable (E) ambitious
38. VERITABLE: (A) impetuous (B) pernicious
(C) inefficacious (D) disastrous (E) specious

FOR GENERAL TEST 1 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P +	Number	Answer	P +
1	A	90	1	A	84
2	B	82	2	E	86
3	B	81	3	B	87
4	E	77	4	C	80
5	D	70	5	A	74
6	C	62	6	B	71
7	C	28	7	C	68
8	D	96	8	C	98
9	C	85	9	D	76
10	C	46	10	C	70
11	A	46	11	B	63
12	D	46	12	A	60
13	A	39	13	B	48
14	E	36	14	B	48
15	E	35	15	D	26
16	A	26	16	D	35
17	C	63	17	A	58
18	B	63	18	D	97
19	A	64	19	B	89
20	C	75	20	D	51
21	E	64	21	B	66
22	D	46	22	A	33
23	D	51	23	C	48
24	B	62	24	C	74
25	A	59	25	D	70
26	E	52	26	A	51
27	B	66	27	C	48
28	E	89	28	E	89
29	A	86	29	B	87
30	E	76	30	E	69
31	B	78	31	E	58
32	C	41	32	E	30
33	E	37	33	C	44
34	D	36	34	A	25
35	C	35	35	E	31
36	A	29	36	D	36
37	A	18	37	D	25
38	D	21	38	E	19

QUANTITATIVE ABILITY					
Section 3			Section 7		
Number	Answer	P +	Number	Answer	P +
1	A	85	1	C	94
2	C	84	2	A	80
3	B	79	3	C	85
4	D	76	4	B	76
5	C	57	5	A	64
6	D	70	6	B	67
7	B	69	7	B	72
8	D	52	8	D	69
9	B	52	9	A	34
10	A	50	10	C	38
11	A	42	11	D	19
12	D	26	12	D	59
13	C	57	13	C	42
14	B	52	14	D	28
15	A	35	15	B	40
16	E	75	16	B	88
17	E	86	17	E	80
18	D	81	18	B	77
19	A	83	19	A	74
20	B	63	20	C	71
21	B	92	21	B	84
22	C	90	22	D	58
23	C	71	23	D	54
24	E	58	24	E	63
25	D	71	25	A	34
26	C	47	26	D	51
27	C	32	27	B	52
28	D	44	28	B	32
29	A	19	29	E	49
30	E	47	30	D	57

ANALYTICAL ABILITY					
Section 2			Section 6		
Number	Answer	P +	Number	Answer	P +
1	C	88	1	A	91
2	C	87	2	D	81
3	E	92	3	D	72
4	E	86	4	C	83
5	C	81	5	D	79
6	A	65	6	E	75
7	A	45	7	B	76
8	B	89	8	B	76
9	B	66	9	A	70
10	E	52	10	C	59
11	C	81	11	E	56
12	D	89	12	D	48
13	D	68	13	C	34
14	A	47	14	A	67
15	A	44	15	B	78
16	B	62	16	E	58
17	A	45	17	A	25
18	B	50	18	D	60
19	D	37	19	B	54
20	D	60	20	C	54
21	D	23	21	C	55
22	E	30	22	C	40
23	B	54	23	D	69
24	E	51	24	B	56
25	E	30	25	C	60

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 2

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. In the British theater young people under thirty-five have not had much ----- getting recognition onstage, but offstage—in the ranks of playwrights, directors, designers, administrators—they have mostly been relegated to relative obscurity.
(A) trouble (B) satisfaction (C) curiosity about
(D) success at (E) fear of
2. An institution concerned about its reputation is at the mercy of the actions of its members, because the misdeeds of individuals are often used to ----- the institutions of which they are a part.
(A) reform (B) coerce (C) honor
(D) discredit (E) intimidate
3. Since many casual smokers develop lung cancer and many ----- smokers do not, scientists believe that individuals differ in their ----- the cancer-causing agents known to be present in cigarette smoke.
(A) heavy. .susceptibility to
(B) chronic. .concern about
(C) habitual. .proximity to
(D) devoted. .reliance upon
(E) regular. .exposure to
4. We accepted the theory that as people become more independent of one another, they begin to feel so isolated and lonely that freedom becomes ----- condition that most will seek to -----.
(A) a permanent. .postpone
(B) a common. .enter
(C) a negative. .escape
(D) a political. .impose
(E) an irreparable. .avoid
5. If animal parents were judged by human standards, the cuckoo would be one of nature's more ----- creatures, blithely laying its eggs in the nests of other birds, and leaving the incubating and nurturing to them.
(A) mettlesome (B) industrious (C) domestic
(D) lackluster (E) feckless
6. The current penchant for ----- a product by denigrating a rival, named in the advertisement by brand name, seems somewhat -----: suppose the consumer remembers only the rival's name?
(A) criticizing. .inefficient
(B) touting. .foolhardy
(C) enhancing. .insipid
(D) evaluating. .cumbersome
(E) flaunting. .gullible ~ *credulous, deceivable, trusting*
7. His imperturbability in the face of evidence indicating his deliberate fraud failed to reassure supporters of his essential -----; instead, it suggested a talent for ----- that they had never suspected.
(A) culpability. .intrigue (B) wisdom. .reproof
(C) remorse. .loquacity (D) probity. .guile
(E) combativeness. .compromise

GO ON TO THE NEXT PAGE.

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. JUDGE : GAVEL ::
(A) detective : uniform
(B) doctor : stethoscope
(C) referee : whistle
(D) soldier : insignia
(E) lecturer : podium
9. ORGAN : KIDNEY ::
(A) skeleton : kneecap
(B) bone : rib
(C) neuron : synapse
(D) abdomen : stomach
(E) blood : aorta
10. SOOT : COMBUSTION ::
(A) lint : brushing
(B) gravel : crushing
(C) gristle : tenderizing
(D) rubbish : housecleaning
(E) sawdust : woodcutting
11. PURIFY : IMPERFECTION ::
(A) align : adjustment
(B) weary : boredom
(C) disagree : controversy
(D) verify : doubtfulness
(E) hone : sharpness
12. CENTRIFUGE : SEPARATE ::
(A) thermometer : calibrate
(B) statue : chisel
(C) floodgate : overflow
(D) colander : drain
(E) television : transmit
13. MOCK : IMITATE
(A) satirize : charm
(B) condense : summarize
(C) placate : assuage
(D) adapt : duplicate
(E) taunt : challenge
14. MALADROIT : SKILL ::
(A) intemperate : anger
(B) unreasonable : intuition
(C) sluggish : fatigue
(D) glib : profundity
(E) morose : depression
15. EQUIVOCATION : AMBIGUOUS ::
(A) mitigation : severe
(B) contradiction : peremptory
(C) platitude : banal
(D) precept : obedient
(E) explanation : unintelligible
16. VOLATILE : TEMPER ::
(A) prominent : notoriety
(B) ready : wit
(C) catastrophic : disaster
(D) gentle : heart
(E) expressive : song

GO ON TO THE NEXT PAGE.

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.

(This passage is from an article published in 1973)

The recent change to all-volunteer armed forces in the United States will eventually produce a gradual increase in the proportion of women in the armed forces and in the variety of women's assignments, but probably not the dramatic gains for women that might have been expected. This is so even though the armed forces operate in an ethos of institutional change oriented toward occupational equality and under the federal sanction of equal pay for equal work. The difficulty is that women are unlikely to be trained for any direct combat operations.

A significant portion of the larger society remains uncomfortable as yet with extending equality in this direction. Therefore, for women in the military, the search for equality will still be based on functional equivalence, not identity or even similarity of task. Opportunities seem certain to arise. The growing emphasis on deterrence is bound to offer increasing scope for women to become involved in novel types of noncombat military assignments.

17. The primary purpose of the passage is to
- (A) present an overview of the different types of assignments available to women in the new United States all-volunteer armed forces
 - (B) present a reasoned prognosis of the status of women in the new United States all-volunteer armed forces
 - (C) present the new United States all-volunteer armed forces as a model case of equal employment policies in action
 - (D) analyze reforms in the new United States all-volunteer armed forces necessitated by the increasing number of women in the military
 - (E) analyze the use of functional equivalence as a substitute for occupational equality in the new United States all-volunteer armed forces

18. According to the passage, despite the United States armed forces' commitment to occupational equality for women in the military, certain other factors preclude women's
- (A) receiving equal pay for equal work
 - (B) having access to positions of responsibility at most levels
 - (C) drawing assignments from a wider range of assignments than before
 - (D) benefiting from opportunities arising from new noncombat functions
 - (E) being assigned all of the military tasks that are assigned to men
19. The passage implies that which of the following is a factor conducive to a more equitable representation of women in the United States armed forces than has existed in the past?
- (A) The all-volunteer character of the present armed forces
 - (B) The past service records of women who had assignments functionally equivalent to men's assignments
 - (C) The level of awareness on the part of the larger society of military issues
 - (D) A decline in the proportion of deterrence-oriented noncombat assignments
 - (E) Restrictive past policies governing the military assignments open to women
20. The "dramatic gains for women" (line 5) and the attitude, as described in lines 11-12, of a "significant portion of the larger society" are logically related to each other inasmuch as the author puts forward the latter as
- (A) a public response to achievement of the former
 - (B) the major reason for absence of the former
 - (C) a precondition for any prospect of achieving the former
 - (D) a catalyst for a further extension of the former
 - (E) a reason for some of the former being lost again

GO ON TO THE NEXT PAGE.

Line
(5) Of the thousands of specimens of meteorites found on Earth and known to science, only about 100 are igneous; that is, they have undergone melting by volcanic action at some time since the planets were first formed. These igneous meteorites are known as achondrites because they lack chondrules— small stony spherules found in the thousands of meteorites (called “chondrites”) composed primarily of unaltered minerals that condensed from dust and gas at the origin of the
(10) solar system. Achondrites are the only known samples of volcanic rocks originating outside the Earth-Moon system. Most are thought to have been dislodged by interbody impact from asteroids, with diameters of from 10 to 500 kilometers, in solar orbit between Mars and
(15) Jupiter.

Shergottites, the name given to three anomalous achondrites so far discovered on Earth, present scientists with a genuine enigma. Shergottites crystallized from molten rock less than 1.1 billion years ago (some
(20) 3.5 billion years later than typical achondrites) and were presumably ejected into space when an object impacted on a body similar in chemical composition to Earth.

While most meteorites appear to derive from comparatively small bodies, shergottites exhibit properties that indicate that their source was a large planet, conceivably Mars. In order to account for such an unlikely source,
(25) some unusual factor must be invoked, because the impact needed to accelerate a fragment of rock to escape the gravitational field of a body even as small as the Moon is so great that no meteorites of lunar origin have been discovered.

While some scientists speculate that shergottites derive from Io (a volcanically active moon of Jupiter), recent measurements suggest that since Io's surface is rich in sulfur and sodium, the chemical composition of its volcanic products would probably be unlike that of the shergottites. Moreover, any fragments dislodged from Io by interbody impact would be unlikely to escape the gravitational pull of Jupiter.
(30)

The only other logical source of shergottites is Mars. Space-probe photographs indicate the existence of giant volcanoes on the Martian surface. From the small number of impact craters that appear on Martian lava flows, one can estimate that the planet was volcanically active as recently as a half-billion years ago—and may be active today. The great objection to the Martian origin of shergottites is the absence of lunar meteorites on Earth. An impact capable of ejecting a fragment of the Martian surface into an Earth-intersecting orbit is even less probable than such an event on the Moon, in view of the Moon's smaller size and closer proximity to Earth. A recent study suggests, however, that permafrost ices below the surface of Mars may have altered the effects of impact on it. If the ices had been rapidly vaporized by an impacting object, the expanding gases might have helped the ejected fragments reach escape velocity. Finally, analyses performed by space probes show a remarkable chemical similarity between Martian soil and the shergottites.
(35)

21. The passage implies which of the following about shergottites?
- They are products of volcanic activity.
 - They derive from a planet larger than Earth.
 - They come from a planetary body with a chemical composition similar to that of Io.
- (A) I only
(B) II only
(C) I and II only
(D) II and III only
(E) I, II, and III
22. According to the passage, a meteorite discovered on Earth is unlikely to have come from a large planet for which of the following reasons?
- (A) There are fewer large planets in the solar system than there are asteroids.
(B) Most large planets have been volcanically inactive for more than a billion years.
(C) The gravitational pull of a large planet would probably prohibit fragments from escaping its orbit.
(D) There are no chondrites occurring naturally on Earth and probably none on other large planets.
(E) Interbody impact is much rarer on large than on small planets because of the density of the atmosphere on large planets.
23. The passage suggests that the age of shergottites is probably
- (A) still entirely undetermined
(B) less than that of most other achondrites
(C) about 3.5 billion years
(D) the same as that of typical achondrites
(E) greater than that of the Earth

GO ON TO THE NEXT PAGE.

24. According to the passage, the presence of chondrules in a meteorite indicates that the meteorite
- (A) has probably come from Mars
 - (B) is older than the solar system itself
 - (C) has not been melted since the solar system formed
 - (D) is certainly less than 4 billion years old
 - (E) is a small fragment of an asteroid
25. The passage provides information to answer which of the following questions?
- (A) What is the precise age of the solar system?
 - (B) How did shergottites get their name?
 - (C) What are the chemical properties shared by shergottites and Martian soils?
 - (D) How volcanically active is the planet Jupiter?
 - (E) What is a major feature of the Martian surface?
26. It can be inferred from the passage that each of the following is a consideration in determining whether a particular planet is a possible source of shergottites that have been discovered on Earth EXCEPT the
- (A) planet's size
 - (B) planet's distance from Earth
 - (C) strength of the planet's field of gravity
 - (D) proximity of the planet to its moons
 - (E) chemical composition of the planet's surface
27. It can be inferred from the passage that most meteorites found on Earth contain which of the following?
- (A) Crystals
 - (B) Chondrules
 - (C) Metals
 - (D) Sodium
 - (E) Sulfur

GO ON TO THE NEXT PAGE.

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. LIMP: (A) true (B) firm (C) clear
(D) stark (E) endless
29. GLOBAL: (A) local (B) unusual
(C) unpredictable (D) hot-headed
(E) single-minded
30. STABILITY: (A) disparity (B) inconstancy
(C) opposition (D) carelessness (E) weariness
31. DILATE: (A) narrow (B) strengthen
(C) bend (D) push (E) soften
32. CONSOLE: (A) pretend sympathy
(B) reveal suffering (C) aggravate grief
(D) betray (E) vilify

33. EXCULPATE: (A) attribute guilt
(B) avoid responsibility (C) establish facts
(D) control hostilities (E) show anxiety
34. ACCRETION: (A) ingestion of a nutrient
(B) loss of the security on a loan
(C) discernment of subtle differences
(D) reduction in substance caused by erosion
(E) sudden repulsion from an entity
35. CADGE: (A) conceal (B) influence
(C) reserve (D) earn (E) favor
36. ABJURE: (A) commingle (B) arbitrate
(C) espouse (D) appease (E) pardon
37. SPECIOUS: (A) unfeigned (B) significant
(C) valid (D) agreeable (E) restricted
38. QUOTIDIAN: (A) extraordinary (B) certain
(C) wishful (D) secret (E) premature

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. Although providing wild chimpanzees with food makes them less ----- and easier to study, it is also known to ----- their normal social patterns.

(A) interesting..reinforce (B) manageable..upset
(C) shy..disrupt (D) poised..inhibit
(E) accessible..retard

2. There is something ----- about the way the building of monasteries proliferated in eighteenth-century Bavaria, while in the rest of the Western world religious ardor was ----- and church building was consequently declining.

(A) enigmatic..coalescing
(B) destructive..changing
(C) immutable..dissipating
(D) incongruous..diminishing
(E) momentous..diversifying

3. Because they had various meanings in nineteenth-century biological thought, "mechanism" and "vitalism" ought not to be considered ----- terms; thus, I find the recent insistence that the terms had single definitions to be entirely -----.

(A) univocal..erroneous
(B) problematic..anachronistic
(C) intractable..obtuse
(D) congruent..suspect
(E) multifaceted..vapid

4. Many Americans believe that individual initiative epitomized the 1890's and see the entrepreneur as the ----- of that age.

(A) caricature (B) salvation (C) throwback
(D) aberration (E) personification

5. Neither the ideas of philosophers nor the practices of ordinary people can, by themselves, ----- reality; what in fact changes reality and kindles revolution is the ----- of the two.

(A) constitute..divergence
(B) affect..aim
(C) transform..interplay
(D) preserve..conjunction
(E) alter..intervention

6. There has been a tendency among art historians not so much to revise as to eliminate the concept of the Renaissance—to ----- not only its uniqueness, but its very existence.

(A) explain (B) extol (C) transmute
(D) regret (E) contest

7. Employees had become so inured to the caprices of top management's personnel policies that they greeted the announcement of a company-wide dress code with-----.

(A) astonishment (B) impassivity
(C) resentment (D) apprehension (E) confusion

GO ON TO THE NEXT PAGE.

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. SURGEON : DEXTERITY ::

- (A) engineer : clarity
- (B) sailor : navigation
- (C) magistrate : precedent
- (D) industrialist : capital
- (E) acrobat : agility

9. PRUNE : HEDGE ::

- (A) shuck : corn
- (B) trim : hair
- (C) cut : bouquet
- (D) reap : crop
- (E) shave : mustache

10. PHOTOGRAPH : LIGHT ::

- (A) script : scene
- (B) film : negative
- (C) recording : sound
- (D) rehearsal : practice
- (E) concert : song

11. ANTIBIOTIC : INFECTION ::

- (A) hormone : modification
- (B) enzyme : digestion
- (C) narcotic : dependency
- (D) coagulant : bleeding
- (E) stimulant : relaxation

12. EULOGY : PRAISE ::

- (A) comedy : laughter
- (B) epic : contempt
- (C) tirade : awe
- (D) elegy : lament
- (E) parody : respect

13. DAMP : VIBRATION ::

- (A) drench : moisture
- (B) concentrate : extraction
- (C) boil : liquid
- (D) seal : perforation
- (E) stanch : flow

14. ABRASED : FRICTION ::

- (A) refined : distillate
- (B) anodized : metal
- (C) diluted : gas
- (D) strengthened : pressure
- (E) vaporized : heat

15. QUARRY : STONE ::

- (A) fell : timber
- (B) dredge : canal
- (C) assay : gold
- (D) bale : hay
- (E) mold : clay

16. CREDULOUS : DUPE ::

- (A) wealthy : monarch
- (B) insensitive : boor
- (C) argumentative : lawyer
- (D) spontaneous : extrovert
- (E) extravagant : miser

GO ON TO THE NEXT PAGE.

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.

Line
(5) The transplantation of organs from one individual to another normally involves two major problems: (1) organ rejection is likely unless the transplantation antigens of both individuals are nearly identical, and (2) the introduction of any unmatched transplantation antigens induces the development by the recipient of donor-specific lymphocytes that will produce violent rejection of further transplants from that donor. However, we have found that among many strains of rats these "normal" rules of transplantation are not obeyed by liver transplants. Not only are liver transplants never rejected, but they even induce a state of donor-specific unresponsiveness in which subsequent transplants of other organs, such as skin, from that donor are accepted permanently. Our hypothesis is that (1) many strains of rats simply cannot mount a sufficiently vigorous destructive immune-response (using lymphocytes) to outstrip the liver's relatively great capacity to protect itself from immune-response damage and that (2) the systemic unresponsiveness observed is due to concentration of the recipient's donor-specific lymphocytes at the site of the liver transplant.

(10)

(15)

(20)

17. The primary purpose of the passage is to treat the accepted generalizations about organ transplantation in which of the following ways?

- (A) Explicate their main features
- (B) Suggest an alternative to them
- (C) Examine their virtues and limitations
- (D) Criticize the major evidence used to support them
- (E) Present findings that qualify them

18. It can be inferred from the passage that the author believes that an important difference among strains of rats is the

- (A) size of their livers
- (B) constitution of their skin
- (C) strength of their immune-response reactions
- (D) sensitivity of their antigens
- (E) adaptability of their lymphocytes

19. According to the hypothesis of the author, after a successful liver transplant, the reason that rats do not reject further transplants of other organs from the same donor is that the

- (A) transplantation antigens of the donor and the recipient become matched
- (B) lymphocytes of the recipient are weakened by the activity of the transplanted liver
- (C) subsequently transplanted organ is able to repair the damage caused by the recipient's immune-response reaction
- (D) transplanted liver continues to be the primary locus for the recipient's immune-response reaction
- (E) recipient is unable to manufacture the lymphocytes necessary for the immune-response reaction

20. Which of the following new findings about strains of rats that do not normally reject liver transplants, if true, would support the authors' hypothesis?

- I. Stomach transplants are accepted by the recipients in all cases.
 - II. Increasing the strength of the recipient's immune-response reaction can induce liver-transplant rejection.
 - III. Organs from any other donor can be transplanted without rejection after liver transplantation.
 - IV. Preventing lymphocytes from being concentrated at the liver transplant produces acceptance of skin transplants.
- (A) II only
 - (B) I and III only
 - (C) II and IV only
 - (D) I, II, and III only
 - (E) I, III, and IV only

GO ON TO THE NEXT PAGE.

Practically speaking, the artistic maturing of the cinema was the single-handed achievement of David W. Griffith (1875-1948). Before Griffith, photography in dramatic films consisted of little more than placing the actors before a stationary camera and showing them in full length as they would have appeared on stage. From the beginning of his career as a director, however, Griffith, because of his love of Victorian painting, employed composition. He conceived of the camera image as having a foreground and a rear ground, as well as the middle distance preferred by most directors. By 1910 he was using close-ups to reveal significant details of the scene or of the acting and extreme long shots to achieve a sense of spectacle and distance. His appreciation of the camera's possibilities produced novel dramatic effects. By splitting an event into fragments and recording each from the most suitable camera position, he could significantly vary the emphasis from camera shot to camera shot.

Griffith also achieved dramatic effects by means of creative editing. By juxtaposing images and varying the speed and rhythm of their presentation, he could control the dramatic intensity of the events as the story progressed. Despite the reluctance of his producers, who feared that the public would not be able to follow a plot that was made up of such juxtaposed images, Griffith persisted, and experimented as well with other elements of cinematic syntax that have become standard ever since. These included the flashback, permitting broad psychological and emotional exploration as well as narrative that was not chronological, and the crosscut between two parallel actions to heighten suspense and excitement. In thus exploiting fully the possibilities of editing, Griffith transposed devices of the Victorian novel to film and gave film mastery of time as well as space.

Besides developing the cinema's language, Griffith immensely broadened its range and treatment of subjects. His early output was remarkably eclectic: it included not only the standard comedies, melodramas, westerns, and thrillers, but also such novelties as adaptations from Browning and Tennyson, and treatments of social issues. As his successes mounted, his ambitions grew, and with them the whole of American cinema. When he remade *Enoch Arden* in 1911, he insisted that a subject of such importance could not be treated in the then conventional length of one reel. Griffith's introduction of the American-made multireel picture began an immense revolution. Two years later, *Judith of Bethulia*, an elaborate historicophilosophical spectacle, reached the unprecedented length of four reels, or one hour's running time. From our contemporary viewpoint, the pretensions of this film may seem a trifle ludicrous, but at the time it provoked endless debate and discussion and gave a new intellectual respectability to the cinema.

21. The primary purpose of the passage is to
 - (A) discuss the importance of Griffith to the development of the cinema
 - (B) describe the impact on cinema of the flashback and other editing innovations
 - (C) deplore the state of American cinema before the advent of Griffith
 - (D) analyze the changes in the cinema wrought by the introduction of the multireel film
 - (E) document Griffith's impact on the choice of subject matter in American films
22. The author suggests that Griffith's film innovations had a direct effect on all of the following EXCEPT
 - (A) film editing
 - (B) camera work
 - (C) scene composing
 - (D) sound editing
 - (E) directing
23. It can be inferred from the passage that before 1910 the normal running time of a film was
 - (A) 15 minutes or less
 - (B) between 15 and 30 minutes
 - (C) between 30 and 45 minutes
 - (D) between 45 minutes and 1 hour
 - (E) 1 hour or more
24. The author asserts that Griffith introduced all of the following into American cinema EXCEPT
 - (A) consideration of social issues
 - (B) adaptations from Tennyson
 - (C) the flashback and other editing techniques
 - (D) photographic approaches inspired by Victorian painting
 - (E) dramatic plots suggested by Victorian theater

GO ON TO THE NEXT PAGE.

25. The author suggests that Griffith's contributions to the cinema had which of the following results?
- I. Literary works, especially Victorian novels, became popular sources for film subjects.
 - II. Audience appreciation of other film directors' experimentations with cinematic syntax was increased.
 - III. Many of the artistic limitations thought to be inherent in filmmaking were shown to be really nonexistent.
- (A) II only
(B) III only
(C) I and II only
(D) II and III only
(E) I, II, and III
26. It can be inferred from the passage that Griffith would be most likely to agree with which of the following statements?
- (A) The good director will attempt to explore new ideas as quickly as possible.
 - (B) The most important element contributing to a film's success is the ability of the actors.
 - (C) The camera must be considered an integral and active element in the creation of a film.
 - (D) The cinema should emphasize serious and sober examinations of fundamental human problems.
 - (E) The proper composition of scenes in a film is more important than the details of their editing.
27. The author's attitude toward photography in the cinema before Griffith can best be described as
- (A) sympathetic (B) nostalgic (C) amused
 - (D) condescending (E) hostile

GO ON TO THE NEXT PAGE.

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. ADHERE: (A) detach (B) cleanse (C) engulf
(D) incise (E) contain
29. UNCONVENTIONALITY: (A) perceptibility
(B) inscrutability (C) imperturbability
(D) fidelity to custom (E) formality of discourse
30. PINCH: (A) important accomplishment
(B) apt translation (C) abundant amount
(D) opportune acquisition (E) unfamiliar period
31. OUTSET: (A) regression (B) series (C) exit
(D) interruption (E) termination
32. RAREFY:
(A) make less humid
(B) make less opaque
(C) make more voluminous
(D) make more dense
(E) make more oily

33. EFFRONTERY: (A) charity (B) deference
(C) simplicity (D) deceitfulness (E) stupidity
34. SCURVY: (A) completely centered
(B) above reproach (C) imaginative
(D) valiant (E) carefree
35. OBDURATE: (A) complaisant (B) similar
(C) commensurate (D) uncommunicative
(E) transitory
36. AVER:
(A) resign indignantly (B) condemn unjustly
(C) refuse (D) deny (E) resent
37. PITH: (A) untimely action
(B) insufficient attention (C) routine treatment
(D) rigid formulation (E) superficial element
38. SUPINE: (A) vigilant (B) flustered
(C) distorted (D) brittle (E) awkward

FOR GENERAL TEST 2 ONLY
Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1		Section 4			
Number	Answer	P +	Number	Answer	P +
1	A	79	1	C	76
2	D	95	2	D	70
3	A	88	3	A	57
4	C	75	4	E	72
5	E	56	5	C	63
6	B	57	6	E	55
7	D	42	7	E	52
8	C	82	8	D	89
9	B	87	9	E	83
10	E	86	10	C	85
11	D	83	11	D	78
12	D	66	12	D	52
13	E	38	13	D	51
14	D	35	14	D	38
15	C	27	15	A	26
16	B	20	16	B	25
17	F	72	17	D	34
18	F	76	18	D	77
19	A	52	19	D	45
20	B	48	20	A	36
21	A	46	21	A	92
22	C	79	22	D	83
23	B	73	23	A	79
24	C	47	24	E	59
25	E	32	25	B	40
26	D	47	26	C	75
27	B	59	27	D	55
28	B	94	28	A	96
29	A	88	29	D	82
30	B	80	30	C	92
31	A	82	31	E	63
32	C	76	32	D	34
33	A	42	33	B	37
34	D	36	34	B	38
35	D	23	35	A	37
36	C	26	36	D	31
37	C	27	37	E	27
38	A	20	38	A	26

QUANTITATIVE ABILITY					
Section 2		Section 5			
Number	Answer	P +	Number	Answer	P +
1	B	80	1	A	82
2	D	82	2	C	89
3	A	78	3	B	77
4	D	80	4	A	86
5	B	81	5	C	79
6	A	76	6	B	70
7	B	72	7	B	66
8	A	62	8	D	72
9	D	59	9	A	65
10	A	56	10	B	77
11	C	36	11	C	61
12	B	38	12	D	47
13	D	34	13	A	61
14	B	27	14	D	39
15	C	22	15	C	30
16	D	94	16	E	92
17	D	79	17	C	88
18	C	78	18	A	80
19	B	74	19	E	71
20	D	72	20	B	53
21	A	82	21	C	78
22	D	75	22	B	81
23	B	69	23	D	62
24	E	52	24	A	21
25	B	40	25	C	42
26	C	61	26	C	52
27	A	52	27	E	52
28	E	48	28	A	27
29	A	40	29	D	35
30	E	39	30	C	20

ANALYTICAL ABILITY					
Section 3		Section 6			
Number	Answer	P +	Number	Answer	P +
1	D	73	1	B	90
2	E	65	2	D	79
3	C	52	3	E	36
4	C	82	4	D	58
5	C	42	5	D	79
6	E	50	6	C	75
7	A	92	7	E	66
8	A	78	8	D	77
9	B	68	9	B	71
10	D	81	10	D	50
11	B	77	11	E	61
12	D	62	12	C	52
13	E	61	13	B	76
14	A	48	14	A	35
15	A	53	15	A	51
16	D	48	16	A	58
17	A	40	17	C	43
18	C	34	18	B	38
19	E	62	19	C	61
20	E	46	20	C	45
21	A	27	21	B	58
22	E	46	22	C	60
23	B	58	23	B	68
24	E	46	24	C	44
25	E	28	25	B	45

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

SECTION 3

Time—30 minutes

37 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. Although the feeding activities of whales and walruses give the seafloor of the Bering Shelf a devastated appearance, these activities seem to be actually _____ to the area, _____ its productivity.
(A) destructive..counterbalancing
(B) rehabilitative..diminishing
(C) beneficial..enhancing
(D) detrimental..redirecting
(E) superfluous..encumbering
2. In an age without radio or recordings, an age _____ by print, fiction gained its greatest ascendancy.
(A) decimated
(B) denigrated
(C) dominated
(D) emphasized
(E) resurrected
3. Scientists' pristine reputation as devotees of the disinterested pursuit of truth has been _____ by recent evidence that some scientists have deliberately _____ experimental results to further their own careers.
(A) reinforced..published
(B) validated..suppressed
(C) exterminated..replicated
(D) compromised..fabricated
(E) resuscitated..challenged
4. Although Johnson's and Smith's initial fascination with the fortunes of those jockeying for power in the law firm _____ after a few months, the two paid sufficient attention to determine who their lunch partners should be.
(A) revived
(B) emerged
(C) intensified
(D) flagged
(E) persisted
5. A war, even if fought for individual liberty and democratic rights, usually requires that these principles be _____, for they are _____ the regimentation and discipline necessary for military efficiency.
(A) espoused..contrary to
(B) suppressed..fulfilled through
(C) suspended..incompatible with
(D) followed..disruptive of
(E) rejected..inherent in
6. To test the _____ of borrowing from one field of study to enrich another, simply investigate the extent to which terms from the one may, without forcing, be _____ the other.
(A) risk..confused with
(B) universality..applied to
(C) decorum..illuminated by
(D) rate..superseded by
(E) efficacy..utilized by
7. The English novelist William Thackeray considered the cult of the criminal so dangerous that he criticized Dickens' *Oliver Twist* for making the characters in the thieves' kitchen so _____.
(A) threatening
(B) riveting
(C) conniving
(D) fearsome
(E) irritating

GO ON TO THE NEXT PAGE.

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. ANIMAL : CAT ::

- (A) apple : pear
- (B) club : player
- (C) furniture : chair
- (D) landscape : tree
- (E) body : toe

9. CURTAIN : STAGE ::

- (A) footlight : orchestra
- (B) lid : jar
- (C) upholstery : sofa
- (D) veil : face
- (E) screen : film

10. INSOMNIA : SLEEP ::

- (A) dyslexia : read
- (B) hemophilia : bleed
- (C) hyperactivity : move
- (D) paranoia : hallucinate
- (E) malnutrition : eat

11. JEER : DERISION ::

- (A) fidget : restraint
- (B) cower : menace
- (C) slouch : vigilance
- (D) reprimand : censure
- (E) frown : adversity

12. HUMILITY : SUPPLICANT ::

- (A) espionage : felon
- (B) dilettantism : connoisseur
- (C) dogmatism : scholar
- (D) gregariousness : teammate
- (E) resistance : adversary

13. INTEREST : INVEIGLE ::

- (A) evaluate : suggest
- (B) foresee : predict
- (C) plan : scheme
- (D) interpret : examine
- (E) neglect : persecute

14. BARTER : COMMODITIES ::

- (A) arbitrate : disputes
- (B) invade : boundaries
- (C) debate : issues
- (D) correspond : letters
- (E) promote : ranks

15. PARRY : QUESTION ::

- (A) return : affection
- (B) shirk : duty
- (C) confront : dread
- (D) hurl : insult
- (E) surrender : temptation

GO ON TO THE NEXT PAGE.

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.

(This passage is excerpted from an article that was published in 1981.)

The deep sea typically has a sparse fauna dominated by tiny worms and crustaceans, with an even sparser distribution of larger animals. However, near hydrothermal vents, areas of the ocean where warm water emerges from subterranean sources, live remarkable densities of huge clams, blind crabs, and fish.

Most deep-sea faunas rely for food on particulate matter, ultimately derived from photosynthesis, falling from above. The food supplies necessary to sustain the large vent communities, however, must be many times the ordinary fallout. The first reports describing vent faunas proposed two possible sources of nutrition: bacterial chemosynthesis, production of food by bacteria using energy derived from chemical changes, and advection, the drifting of food materials from surrounding regions. Later, evidence in support of the idea of intense local chemosynthesis was accumulated: hydrogen sulfide was found in vent water; many vent-site bacteria were found to be capable of chemosynthesis; and extremely large concentrations of bacteria were found in samples of vent water thought to be pure. This final observation seemed decisive. If such astonishing concentrations of bacteria were typical of vent outflow, then food within the vent would dwarf any contribution from advection. Hence, the widely quoted conclusion was reached that bacterial chemosynthesis provides the foundation for hydrothermal-vent food chains—an exciting prospect because no other communities on Earth are independent of photosynthesis.

There are, however, certain difficulties with this interpretation. For example, some of the large sedentary organisms associated with vents are also found at ordinary deep-sea temperatures many meters from the nearest hydrothermal sources. This suggests that bacterial chemosynthesis is not a sufficient source of nutrition for these creatures. Another difficulty is that similarly dense populations of large deep-sea animals have been found in the proximity of "smokers"—vents where water emerges at temperatures up to 350° C. No bacteria can survive such heat, and no bacteria were found there.

Unless smokers are consistently located near more hospitable warm-water vents, chemosynthesis can account for only a fraction of the vent faunas. It is conceivable, however, that these large, sedentary organisms do in fact feed on bacteria that grow in warm-water vents, rise in the vent water, and then rain in peripheral areas to nourish animals living some distance from the warm-water vents.

Nonetheless, advection is a more likely alternative food source. Research has demonstrated that advective flow, which originates near the surface of the ocean where suspended particulate matter accumulates, transports some of that matter and water to the vents. Estimates suggest that for every cubic meter of vent discharge, 350 milligrams of particulate organic material would be advected into the vent area. Thus, for an average-sized vent, advection could provide more than 30 kilograms of potential food per day. In addition, it is likely that small live animals in the advected water might be killed or stunned by thermal and/or chemical shock, thereby contributing to the food supply of vents.

16. The passage provides information for answering which of the following questions?

- (A) What causes warm-water vents to form?
- (B) Do vent faunas consume more than do deep-sea faunas of similar size?
- (C) Do bacteria live in the vent water of smokers?
- (D) What role does hydrogen sulfide play in chemosynthesis?
- (E) What accounts for the locations of deep-sea smokers?

GO ON TO THE NEXT PAGE

17. The information in the passage suggests that the majority of deep-sea faunas that live in nonvent habitats have which of the following characteristics?
- (A) They do not normally feed on particles of food in the water.
 - (B) They are smaller than many vent faunas.
 - (C) They are predators.
 - (D) They derive nutrition from a chemosynthetic food source.
 - (E) They congregate around a single main food source.
18. The primary purpose of the passage is to
- (A) describe a previously unknown natural phenomenon
 - (B) reconstruct the evolution of a natural phenomenon
 - (C) establish unequivocally the accuracy of a hypothesis
 - (D) survey explanations for a natural phenomenon and determine which is best supported by evidence
 - (E) entertain criticism of the author's research and provide an effective response
19. Which of the following does the author cite as a weakness in the argument that bacterial chemosynthesis provides the foundation for the food chains at deep-sea vents?
- (A) Vents are colonized by some of the same animals found in other areas of the ocean floor.
 - (B) Vent water does not contain sufficient quantities of hydrogen sulfide.
 - (C) Bacteria cannot produce large quantities of food quickly enough.
 - (D) Large concentrations of minerals are found in vent water.
 - (E) Some bacteria found in the vents are incapable of chemosynthesis.
20. Which of the following is information supplied in the passage that would support the statement that the food supplies necessary to sustain vent communities must be many times that of ordinary fallout?
- I. Large vent faunas move from vent to vent in search of food.
 - II. Vent faunas are not able to consume food produced by photosynthesis.
 - III. Vents are more densely populated than are other deep-sea areas.
- (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
21. The author refers to "smokers" (line 38) most probably in order to
- (A) show how thermal shock can provide food for some vent faunas by stunning small animals
 - (B) prove that the habitat of most deep-sea animals is limited to warm-water vents
 - (C) explain how bacteria carry out chemosynthesis
 - (D) demonstrate how advection compensates for the lack of food sources on the seafloor
 - (E) present evidence that bacterial chemosynthesis may be an inadequate source of food for some vent faunas
22. Which of the following can be inferred from the passage about the particulate matter that is carried down from the surface of the ocean?
- (A) It is the basis of bacterial chemosynthesis in the vents.
 - (B) It may provide an important source of nutrition for vent faunas.
 - (C) It may cause the internal temperature of the vents to change significantly.
 - (D) It is transported as large aggregates of particles.
 - (E) It contains hydrogen sulfide.

GO ON TO THE NEXT PAGE.

Throughout human history there have been many stringent taboos concerning watching other people eat or eating in the presence of others. There have been attempts to explain these taboos in terms of inappropriate social relationships either between those who

are involved and those who are not simultaneously involved in the satisfaction of a bodily need, or between those already sated and those who appear to be shamelessly gorging. Undoubtedly such elements

(10) exist in the taboos, but there is an additional element with a much more fundamental importance. In prehistoric times, when food was so precious and the on-lookers so hungry, not to offer half of the little food one had was unthinkable, since every glance was a plea

(15) for life. Further, during those times, people existed in nuclear or extended family groups, and the sharing of food was quite literally supporting one's family or, by extension, preserving one's self.

23. If the argument in the passage is valid, taboos against eating in the presence of others who are not also eating would be LEAST likely in a society that

- (A) had always had a plentiful supply of food
- (B) emphasized the need to share worldly goods
- (C) had a nomadic rather than an agricultural way of life
- (D) emphasized the value of privacy
- (E) discouraged overindulgence

24. The author's hypothesis concerning the origin of taboos against watching other people eat emphasizes the

- (A) general palatability of food
- (B) religious significance of food
- (C) limited availability of food
- (D) various sources of food
- (E) nutritional value of food

25. According to the passage, the author believes that past attempts to explain some taboos concerning eating are

- (A) unimaginative
- (B) implausible
- (C) inelegant
- (D) incomplete
- (E) unclear

26. In developing the main idea of the passage, the author does which of the following?

- (A) Downplays earlier attempts to explain the origins of a social prohibition.
- (B) Adapts a scientific theory and applies it to a spiritual relationship.
- (C) Simplifies a complex biological phenomenon by explaining it in terms of social needs.
- (D) Reorganizes a system designed to guide personal behavior.
- (E) Codifies earlier, unsystematized conjectures about family life.

GO ON TO THE NEXT PAGE.

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.

27. CONSOLIDATION: (A) instigation
(B) fragmentation (C) restriction
(D) opposition (E) provocation
28. SECURE: (A) infest (B) unearth
(C) impart (D) implant (E) unfasten
29. FRACAS: (A) rapture (B) relic
(C) novel predicament (D) peaceful situation
(E) just reward
30. GRATE: (A) soothe (B) gather
(C) acknowledge (D) forgive (E) improve
31. HYPERBOLE: (A) equivocation (B) criticism
(C) understatement (D) pessimism
(E) skepticism
32. INERRANCY: (A) productivity
(B) generosity (C) volubility (D) fallibility
(E) plausibility
33. STEEP: (A) relax (B) repulse
(C) plummet (D) clarify (E) parch
34. RECUMBENT: (A) well fortified
(B) standing up (C) lacking flexibility
(D) constricted (E) alarmed
35. NATTY: (A) sloppy (B) quiet (C) loose
(D) common (E) difficult
36. EXIGENT: (A) unprepossessing (B) inquisitive
(C) devoted (D) absurd (E) deferrable
37. PLATITUDE:
(A) concise formulation
(B) original observation
(C) unsubstantiated claim
(D) relevant concern
(E) insincere remark

Center For Educational
Exchange With Vietnam
91 Tho Nhuom
Hanoi Vietnam

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. The discovery that, friction excluded, all bodies fall at the same rate is so simple to state and to grasp that there is a tendency to ----- its significance.
(A) underrate
(B) control
(C) reassess
(D) praise
(E) eliminate
2. Their mutual teasing seemed -----, but in fact it ----- a long-standing hostility.
(A) aimless..produced
(B) friendly..masked
(C) playful..contravened
(D) bitter..revealed
(E) clever..averted
3. Noting that few employees showed any ----- for complying with the corporation's new safety regulations, Peterson was forced to conclude that acceptance of the regulations would be -----, at best.
(A) aptitude..unavoidable
(B) regard..indeterminate
(C) respect..negotiable
(D) patience..imminent
(E) enthusiasm..grudging
4. It has been argued that politics as -----, whatever its transcendental claims, has always been the systematic organization of common hatreds.
(A) a theory
(B) an ideal
(C) a practice
(D) a contest
(E) an enigma
5. In many science fiction films, the opposition of good and evil is portrayed as a ----- between technology, which is -----, and the errant will of a depraved intellectual.
(A) fusion..useful
(B) struggle..dehumanizing
(C) parallel..unfettered
(D) conflict..beneficent
(E) similarity..malevolent
6. Although scientists claim that the seemingly ----- language of their reports is more precise than the figurative language of fiction, the language of science, like all language, is inherently -----.
(A) ornamental..subtle
(B) unidimensional..unintelligible
(C) symbolic..complex
(D) literal..allusive
(E) subjective..metaphorical
7. In recent decades the idea that Cézanne influenced Cubism has been caught in the ----- between art historians who credit Braque with its invention and those who ----- Picasso.
(A) crossfire..tout
(B) interplay..advocate
(C) paradox..prefer
(D) deliberation..attribute
(E) tussle..substitute

GO ON TO THE NEXT PAGE.

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. DISGUISE : IDENTIFICATION ::

- (A) equivocation : ambiguity
- (B) facade : decoration
- (C) forgery : wealth
- (D) camouflage : detection
- (E) manipulation : advantage

9. BIRD : FEATHERS ::

- (A) mammal : spine
- (B) hand : fingers
- (C) branch : fruit
- (D) limb : fur
- (E) fish : scales

10. ELBOW : JOINT ::

- (A) cell : tissue
- (B) corpuscle : blood
- (C) muscle : bone
- (D) skull : skeleton
- (E) heart : organ

11. ENDOW : INCOME ::

- (A) emit : signals
- (B) endorse : approval
- (C) enchant : magic
- (D) embark : voyage
- (E) endure : hardships

12. BOMBAST : POMPOUS ::

- (A) prose : economical
- (B) circumlocution : patient
- (C) prattle : succinct
- (D) verbiage : mundane
- (E) tirade : critical

13. CARET : INSERTION ::

- (A) pound : heaviness
- (B) tongs : extraction
- (C) comma : pause
- (D) quotation : agreement
- (E) clip : attachment

14. OPAQUE : LIGHT ::

- (A) inaudible : sound
- (B) unbreakable : plastic
- (C) reflective : mirror
- (D) nonporous : liquid
- (E) viscous : fluid

15. FEARLESS : DAUNT ::

- (A) perplexed : enlighten
- (B) nondescript : neglect
- (C) avaricious : motivate
- (D) impassive : perturb
- (E) tranquil : pacify

16. QUERULOUS : COMPLAIN ::

- (A) humble : fawn
- (B) prodigal : spend
- (C) treacherous : trust
- (D) laconic : talk
- (E) culpable : blame

GO ON TO THE NEXT PAGE.

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.

(This passage is from a book published in 1975.)

That Louise Nevelson is believed by many critics to be the greatest twentieth-century sculptor is all the more remarkable because the greatest resistance to women artists has been, until recently, in the field of sculpture. Since Neolithic times, sculpture has been considered the prerogative of men, partly, perhaps, for purely physical reasons: it was erroneously assumed that women were not suited for the hard manual labor required in sculpting stone, carving wood, or working in metal. It has been only during the twentieth century that women sculptors have been recognized as major artists, and it has been in the United States, especially since the decades of the fifties and sixties, that women sculptors have shown the greatest originality and creative power. Their rise to prominence parallels the development of sculpture itself in the United States: while there had been a few talented sculptors in the United States before the 1940's, it was only after 1945—when New York was rapidly becoming the art capital of the world—that major sculpture was produced in the United States. Some of the best was the work of women.

By far the most outstanding of these women is Louise Nevelson, who in the eyes of many critics is the most original female artist alive today. One famous and influential critic, Hilton Kramer, said of her work, "For myself, I think Ms. Nevelson succeeds where the painters often fail."

Her works have been compared to the Cubist constructions of Picasso, the Surrealist objects of Miro, and the Merzbau of Schwitters. Nevelson would be the first to admit that she has been influenced by all of these, as well as by African sculpture, and by Native American and pre-Columbian art, but she has absorbed all these influences and still created a distinctive art that expresses the urban landscape and the aesthetic sensibility of the twentieth century. Nevelson says, "I have always wanted to show the world that art is everywhere, except that it has to pass through a creative mind."

Using mostly discarded wooden objects like packing crates, broken pieces of furniture, and abandoned architectural ornaments, all of which she has hoarded for years, she assembles architectural constructions of great beauty and power. Creating very freely with no sketches, she glues and nails objects together, paints them black, or more rarely white or gold, and places them in boxes. These assemblages, walls, even entire environments create a mysterious, almost awe-inspiring atmosphere. Although she has denied any symbolic or religious intent in her works, their three-dimensional grandeur and even their titles, such as *Sky Cathedral* and *Night Cathedral*, suggest such connotations. In some ways, her most ambitious works are closer to architecture than to traditional sculpture, but then neither Louise Nevelson nor her art fits into any neat category.

- Line
(5) 17. The passage focuses primarily on which of the following?
(A) A general tendency in twentieth-century art
(B) The work of a particular artist
(C) The artistic influences on women sculptors
(D) Critical responses to twentieth-century sculpture
(E) Materials used by twentieth-century sculptors
- (10) 18. Which of the following statements is supported by information given in the passage?
(A) Since 1945 women sculptors in the United States have produced more sculpture than have men sculptors.
(B) Since 1950 sculpture produced in the United States has been the most original and creative sculpture produced anywhere.
(C) From 1900 to 1950 women sculptors in Europe enjoyed more recognition for their work than did women sculptors in the United States.
(D) Prior to 1945 there were many women sculptors whose work was ignored by critics.
(E) Prior to 1945 there was little major sculpture produced by men or women sculptors working in the United States.
- (15) 19. The author quotes Hilton Kramer in lines 25-27 most probably in order to illustrate which of the following?
(A) The realism of Nevelson's work
(B) The unique qualities of Nevelson's style
(C) The extent of critical approval of Nevelson's work
(D) A distinction between sculpture and painting
(E) A reason for the prominence of women sculptors since the 1950's

GO ON TO THE NEXT PAGE.

20. Which of the following is one way in which Nevelson's art illustrates her theory as it is expressed in lines 36-38?
- (A) She sculpts in wood rather than in metal or stone.
 - (B) She paints her sculptures and frames them in boxes.
 - (C) She makes no preliminary sketches but rather allows the sculpture to develop as she works.
 - (D) She puts together pieces of ordinary objects once used for different purposes to make her sculptures.
 - (E) She does not deliberately attempt to convey symbolic or religious meanings through her sculpture.
21. It can be inferred from the passage that the author believes which of the following about Nevelson's sculptures?
- (A) They suggest religious and symbolic meanings.
 - (B) They do not have qualities characteristic of sculpture.
 - (C) They are mysterious and awe-inspiring, but not beautiful.
 - (D) They are uniquely American in style and sensibility.
 - (E) They show the influence of twentieth-century architecture.
22. The author regards Nevelson's stature in the art world as "remarkable" (line 3) in part because of which of the following?
- (A) Her work is currently overrated.
 - (B) Women sculptors have found it especially difficult to be accepted and recognized as major artists.
 - (C) Nevelson's sculptures are difficult to understand.
 - (D) Many art critics have favored painting over sculpture in writing about developments in the art world.
 - (E) Few of the artists prominent in the twentieth century have been sculptors.
23. Which of the following statements about Nevelson's sculptures can be inferred from the passage?
- (A) They are meant for display outdoors.
 - (B) They are often painted in several colors.
 - (C) They are sometimes very large.
 - (D) They are hand carved by Nevelson.
 - (E) They are built around a central wooden object.

GO ON TO THE NEXT PAGE.

Line
(5) Volcanic rock that forms as fluid lava chills rapidly is called pillow lava. This rapid chilling occurs when lava erupts directly into water (or beneath ice) or when it flows across a shoreline and into a body of water. While the term "pillow lava" suggests a definite shape, in fact geologists disagree. Some geologists argue that pillow lava is characterized by discrete, ellipsoidal masses. Others describe pillow lava as a tangled mass of cylindrical, interconnected flow lobes. Much of this controversy
(10) probably results from unwarranted extrapolations of the original configuration of pillow flows from two-dimensional cross sections of eroded pillows in land outcroppings. Virtually any cross section cut through a tangled mass of interconnected flow lobes would give the appearance of a pile of discrete ellipsoidal masses. Adequate three-dimensional images of intact pillows are essential for defining the true geometry of pillow flows and thus ascertaining their mode of origin. Indeed, the term "pillow," itself suggestive of discrete masses, is probably a misnomer.

- (15)
24. Which of the following is a fact presented in the passage?
- (A) The shape of the connections between the separate, sacklike masses in pillow lava is unknown.
 - (B) More accurate cross sections of pillow lava would reveal the mode of origin.
 - (C) Water or ice is necessary for the formation of pillow lava.
 - (D) No three-dimensional examples of intact pillows currently exist.
 - (E) The origin of pillow lava is not yet known.
25. In the passage, the author is primarily interested in
- (A) analyzing the source of a scientific controversy
 - (B) criticizing some geologists' methodology
 - (C) pointing out the flaws in a geological study
 - (D) proposing a new theory to explain existing scientific evidence
 - (E) describing a physical phenomenon

26. The author of the passage would most probably agree that the geologists mentioned in line 6 ("Some geologists") have made which of the following errors in reasoning?
- I. Generalized unjustifiably from available evidence.
 - II. Deliberately ignored existing counterevidence.
 - III. Repeatedly failed to take new evidence into account.
- (A) I only (B) II only (C) III only
(D) I and II only (E) II and III only
27. The author implies that the "controversy" (line 9) might be resolved if
- (A) geologists did not persist in using the term "pillow"
 - (B) geologists did not rely on potentially misleading information
 - (C) geologists were more willing to confer directly with one another
 - (D) two-dimensional cross sections of eroded pillows were available
 - (E) existing pillows in land outcroppings were not so badly eroded

GO ON TO THE NEXT PAGE.

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. PEER:
(A) a complicated structure
(B) an insignificant explanation
(C) a subordinate person
(D) an inept musician
(E) an unreliable worker
29. SYNCHRONOUS:
(A) unusual in appearance
(B) of a distinct origin
(C) occurring at different times
(D) monotonous
(E) shapeless
30. ALIENATE: (A) reunite (B) influence
(C) relieve (D) match (E) revitalize
31. PREDESTINE: (A) jumble (B) doubt
(C) leave to chance (D) arrange incorrectly
(E) defy authority
32. AERATE: (A) generate (B) create (C) elevate
(D) combine water with (E) remove air from
33. FALLOW: (A) abundant (B) valuable
(C) necessary (D) in use (E) in demand
34. CORROBORATE: (A) tire (B) rival
(C) deny (D) antagonize (E) disengage
35. PERUSE: (A) glide along (B) argue against
" (C) strive for (D) pick up (E) glance at
36. SEEMLY: (A) indecorous (B) inapparent
(C) disconnected (D) disingenuous
(E) deleterious
37. TENUOUS: (A) substantial (B) obdurate
(C) permanent (D) ubiquitous (E) intelligible
38. GRATUITOUS: (A) thankless (B) warranted
(C) trying (D) discreet (E) spurious

FOR GENERAL TEST 3 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 3		Section 5			
Number	Answer	P +	Number	Answer	P +
1	C	93	1	A	89
2	C	91	2	B	82
3	D	79	3	C	56
4	D	69	4	C	55
5	C	68	5	D	45
6	B	54	6	D	42
7	B	58	7	A	49
8	D	90	8	B	86
9	D	70	9	B	91
10	A	49	10	C	75
11	D	46	11	B	52
12	C	36	12	C	44
13	D	34	13	D	13
14	D	28	14	C	32
15	B	31	15	D	28
16	C	53	16	B	29
17	C	26	17	B	92
18	D	75	18	C	67
19	A	50	19	C	54
20	B	56	20	D	68
21	B	58	21	A	55
22	B	70	22	C	99
23	A	70	23	C	61
24	C	84	24	C	70
25	D	66	25	A	47
26	A	40	26	A	56
27	B	85	27	B	43
28	B	87	28	C	85
29	C	79	29	C	90
30	A	78	30	A	81
31	C	70	31	C	81
32	D	54	32	B	72
33	D	32	33	D	37
34	B	33	34	C	37
35	A	24	35	E	37
36	B	22	36	A	27
37	B	22	37	B	24

QUANTITATIVE ABILITY					
Section 2		Section 6			
Number	Answer	P +	Number	Answer	P +
1	A	90	1	A	83
2	A	90	2	C	74
3	B	80	3	B	30
4	A	80	4	D	55
5	C	62	5	A	71
6	B	66	6	B	77
7	D	61	7	A	66
8	D	52	8	C	66
9	A	59	9	C	57
10	S	54	10	D	51
11	D	49	11	D	45
12	C	41	12	C	47
13	D	18	13	C	41
14	C	38	14	C	33
15	A	32	15	A	29
16	C	83	16	B	90
17	D	80	17	B	82
18	D	82	18	C	77
19	A	50	19	B	69
20	B	66	20	D	62
21	C	79	21	C	93
22	B	90	22	D	85
23	B	76	23	C	75
24	B	71	24	C	57
25	A	45	25	A	45
26	A	49	26	D	46
27	C	47	27	C	64
28	A	46	28	D	54
29	D	43	29	D	32
30	E	22	30	A	35

ANALYTICAL ABILITY					
Section 1		Section 4			
Number	Answer	P +	Number	Answer	P +
1	B	76	1	D	90
2	C	83	2	A	86
3	D	59	3	D	59
4	D	56	4	C	56
5	A	59	5	A	59
6	S	51	6	B	68
7	D	95	7	C	51
8	C	82	8	B	75
9	D	72	9	C	76
10	A	60	10	D	88
11	C	57	11	C	83
12	D	54	12	B	41
13	C	57	13	D	33
14	B	38	14	C	24
15	A	66	15	A	18
16	C	54	16	D	60
17	A	29	17	B	38
18	D	24	18	C	52
19	A	51	19	D	73
20	D	60	20	A	68
21	B	48	21	C	59
22	D	35	22	B	50
23	B	52	23	C	72
24	B	61	24	D	64
25	A	19	25	E	38

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 4

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. Although adolescent maturational and developmental states occur in an orderly sequence, their timing ----- with regard to onset and duration.
(A) lasts (B) varies (C) falters
(D) accelerates (E) dwindle
2. Many of the earliest colonial houses that are still standing have been so modified and enlarged that the ----- design is no longer _____.
(A) pertinent..relevant
(B) intended..necessary
(C) embellished..attractive
(D) appropriate..applicable
(E) initial..discernible
3. While the delegate clearly sought to ----- the optimism that has emerged recently, she stopped short of suggesting that the conference was near collapse and might produce nothing of significance.
(A) substantiate (B) dampen (C) encourage
(D) elucidate (E) rekindle
4. The old man could not have been accused of ----- his affection; his conduct toward the child betrayed his ----- her.
(A) lavishing..fondness for
(B) sparing..tolerance of
(C) rationing..antipathy for
(D) stinting..adoration of
(E) promising..dislike of

5. A leading chemist believes that many scientists have difficulty with stereochemistry because much of the relevant nomenclature is -----, in that it combines concepts that should be kept -----.
(A) obscure..interrelated
(B) specialized..intact
(C) subtle..inviolate
(D) descriptive..separate
(E) imprecise..discrete
6. Among the many ----- of the project, expense cannot be numbered; the goals of the project's promoters can be achieved with impressive _____.
(A) highlights..efficiency
(B) features..savings
(C) disadvantages..innovation
(D) claims..speed
(E) defects..economy
7. Though science is often imagined as a ----- exploration of external reality, scientists are no different from anyone else: they are ----- human beings enmeshed in a web of personal and social circumstances.
(A) fervent..vulnerable
(B) neutral..rational
(C) painstaking..careless
(D) disinterested..passionate
(E) cautious..dynamic

GO ON TO THE NEXT PAGE.

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. DRAWBRIDGE : CASTLE :: (A) lawn : house
(B) gangway : ship (C) aisle : stage
(D) hallway : building (E) sidewalk : garage
9. INSULIN : PANCREAS :: (A) bile : liver
(B) menthol : eucalyptus (C) oxygen : heart
(D) honey : bee (E) vanilla : bean
10. TALON : EAGLE :: (A) fang : snake
(B) hoof : horse (C) quill : porcupine
(D) tusk : elephant (E) claw : panther
11. ARTICULATE : CLEARLY ::
(A) orate : strongly
(B) shout : loudly
(C) lecture : willfully
(D) malign : incoherently
(E) jest : belligerently
12. NUANCE : DISTINCTION ::
(A) remnant : preservation
(B) shade : spectrum
(C) hint : suggestion
(D) trace : existence
(E) splinter : disintegration

13. URBANE : GAUCHERIE ::
(A) confident : coterie
(B) calculating : imposture
(C) diffident : goodwill
(D) fearful : destruction
(E) guileless : chicanery

14. VOTING : ROLL CALL ::
(A) termination : clture
(B) amendment : constitution
(C) majority : concession
(D) quorum : filibuster
(E) investigation : legislation

15. DEMUR : QUALMS ::
(A) placate : pique
(B) obligate : benevolence
(C) atrophy : rehabilitation
(D) manipulate : experience
(E) waver : irresoluteness

16. MISER : THRIFT ::
(A) performer : artistry
(B) chauvinist : patriotism
(C) mimic : ridicule
(D) politician : compromise
(E) scientist : discovery

GO ON TO THE NEXT PAGE.

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.

Of Homer's two epic poems, the *Odyssey* has always been more popular than the *Iliad*, perhaps because it includes more features of mythology that are accessible to readers. Its subject (to use Maynard Mack's categories) is "life-as-spectacle," for readers, diverted by its various incidents, observe its hero Odysseus primarily from without; the tragic *Iliad*, however, presents "life-as-experience": readers are asked to identify with the mind of Achilles, whose motivations render him a not particularly likable hero. In addition, the *Iliad*, more than the *Odyssey*, suggests the complexity of the gods' involvement in human actions, and to the extent that modern readers find this complexity a needless complication, the *Iliad* is less satisfying than the *Odyssey*, with its simpler scheme of divine justice. Finally, since the *Iliad* presents a historically verifiable action, Troy's siege, the poem raises historical questions that are absent from the *Odyssey*'s blithely imaginative world.

17. The author uses Mack's "categories" (lines 4-5) most probably in order to
- (A) argue that the *Iliad* should replace the *Odyssey* as the more popular poem
 - (B) indicate Mack's importance as a commentator on the *Iliad* and the *Odyssey*
 - (C) suggest one way in which the *Iliad* and the *Odyssey* can be distinguished
 - (D) point out some of the difficulties faced by readers of the *Iliad* and the *Odyssey*
 - (E) demonstrate that the *Iliad* and the *Odyssey* can best be distinguished by comparing their respective heroes
18. The author suggests that the variety of incidents in the *Odyssey* is likely to deter the reader from.
- (A) concentrating on the poem's mythological features
 - (B) concentrating on the psychological states of the poem's central character
 - (C) accepting the explanations that have been offered for the poem's popularity
 - (D) accepting the poem's scheme of divine justice
 - (E) accepting Maynard Mack's theory that the poem's subject is "life-as-spectacle"
19. The passage is primarily concerned with
- (A) distinguishing arguments
 - (B) applying classifications
 - (C) initiating a debate
 - (D) resolving a dispute
 - (E) developing a contrast
20. It can be inferred from the passage that a reader of the *Iliad* is likely to have trouble identifying with the poem's hero for which of the following reasons?
- (A) The hero is eventually revealed to be unheroic.
 - (B) The hero can be observed by the reader only from without.
 - (C) The hero's psychology is not historically verifiable.
 - (D) The hero's emotions often do not seem appealing to the reader.
 - (E) The hero's emotions are not sufficiently various to engage the reader's attention.

GO ON TO THE NEXT PAGE.

Flatfish, such as the flounder, are among the few vertebrates that lack approximate bilateral symmetry (symmetry in which structures to the left and right of the body's midline are mirror images). Most striking among

- (5) the many asymmetries evident in an adult flatfish is eye placement: before maturity one eye migrates, so that in an adult flatfish both eyes are on the same side of the head. While in most species with asymmetries virtually all adults share the same asymmetry, members of the
(10) starry flounder species can be either left-eyed (both eyes on the left side of head) or right-eyed. In the waters between the United States and Japan, the starry flounder populations vary from about 50 percent left-eyed off the United States West Coast, through about 70 percent left-eyed halfway between the United States and Japan, to nearly 100 percent left-eyed off the Japanese coast.

Biologists call this kind of gradual variation over a certain geographic range a "cline" and interpret clines as strong indications that the variation is adaptive, a

- (20) response to environmental differences. For the starry flounder this interpretation implies that a geometric difference (between fish that are mirror images of one another) is adaptive, that left-eyedness in the Japanese starry flounder has been selected for, which provokes a
(25) perplexing question: what is the selective advantage in having both eyes on one side rather than on the other?

The ease with which a fish can reverse the effect of the sidedness of its eye asymmetry simply by turning around has caused biologists to study internal anatomy,

- (30) especially the optic nerves, for the answer. In all flatfish the optic nerves cross, so that the right optic nerve is joined to the brain's left side and vice versa. This crossing introduces an asymmetry, as one optic nerve must cross above or below the other. G. H. Parker
(35) reasoned that if, for example, a flatfish's left eye migrated when the right optic nerve was on top, there would be a twisting of nerves, which might be mechanically disadvantageous. For starry flounders, then, the left-eyed variety would be selected against, since in a
(40) starry flounder the left optic nerve is uppermost.

The problem with the above explanation is that the Japanese starry flounder population is almost exclusively left-eyed, and natural selection never promotes a purely less advantageous variation. As other explanations

- (45) proved equally untenable, biologists concluded that there is no important adaptive difference between left-eyedness and right-eyedness, and that the two characteristics are genetically associated with some other adaptively significant characteristic. This situation is one
(50) commonly encountered by evolutionary biologists, who must often decide whether a characteristic is adaptive or selectively neutral. As for the left-eyed and right-eyed flatfish, their difference, however striking, appears to be an evolutionary red herring.

21. According to the passage, starry flounder differ from most other species of flatfish in that starry flounder

- (A) are not basically bilaterally symmetric
(B) do not become asymmetric until adulthood
(C) do not all share the same asymmetry
(D) have both eyes on the same side of the head
(E) tend to cluster in only certain geographic regions

22. The author would be most likely to agree with which of the following statements about left-eyedness and right-eyedness in the starry flounder?

- I. They are adaptive variations by the starry flounder to environmental differences.
II. They do not seem to give obvious selective advantages to the starry flounder.
III. They occur in different proportions in different locations.
- (A) I only
(B) II only
(C) I and III only
(D) II and III only
(E) I, II, and III

23. According to the passage, a possible disadvantage associated with eye migration in flatfish is that the optic nerves can

- (A) adhere to one another
(B) detach from the eyes
(C) cross
(D) stretch
(E) twist

GO ON TO THE NEXT PAGE.

24. Which of the following best describes the organization of the passage as a whole?
- (A) A phenomenon is described and an interpretation presented and rejected.
 - (B) A generalization is made and supporting evidence is supplied and weighed.
 - (C) A contradiction is noted and a resolution is suggested and then modified.
 - (D) A series of observations is presented and explained in terms of the dominant theory.
 - (E) A hypothesis is introduced and corroborated in the light of new evidence.
25. The passage supplies information for answering which of the following questions?
- (A) Why are Japanese starry flounder mostly left-eyed?
 - (B) Why should the eye-sidedness in starry flounder be considered selectively neutral?
 - (C) Why have biologists recently become interested in whether a characteristic is adaptive or selectively neutral?
 - (D) How do the eyes in flatfish migrate?
 - (E) How did Parker make his discoveries about the anatomy of optic nerves in flatfish?
26. Which of the following is most clearly similar to a cline as it is described in the second paragraph of the passage?
- (A) A vegetable market in which the various items are grouped according to place of origin
 - (B) A wheat field in which different varieties of wheat are planted to yield a crop that will bring the maximum profit
 - (C) A flower stall in which the various species of flowers are arranged according to their price
 - (D) A housing development in which the length of the front struts supporting the porch of each house increases as houses are built up the hill
 - (E) A national park in which the ranger stations are placed so as to be inconspicuous, and yet as easily accessible as possible
27. Which of the following phrases from the passage best expresses the author's conclusion about the meaning of the difference between left-eyed and right-eyed flatfish?
- (A) "Most striking" (line 4)
 - (B) "variation is adaptive" (line 19)
 - (C) "mechanically disadvantageous" (lines 37-38)
 - (D) "adaptively significant" (lines 48-49)
 - (E) "evolutionary red herring" (line 54)

GO ON TO THE NEXT PAGE.

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. VAGUE: (A) expressive (B) felicitous
(C) well-defined (D) nearly perfect
(E) closely matched
29. FOCUS: (A) disappear (B) disperse
(C) link (D) activate (E) layer
30. PROLOGUE: (A) soliloquy (B) trilogy
(C) analogue (D) dialogue (E) epilogue
31. DISARM: (A) hold close (B) put on guard
(C) challenge (D) entertain (E) instruct
32. INFLATE: (A) converge (B) inhibit
(C) audit (D) minimize (E) detect
33. INDIGENOUS: (A) thoughtful (B) acquired
(C) redundant (D) unworthy (E) sterile
34. QUELL: (A) foment (B) divert
(C) confirm (D) convoke (E) delay
35. EGRESS:
(A) entrance
(B) decline
(C) wide variation
(D) inadequate amount
(E) lateral movement
36. PIED: (A) delicately formed
(B) precisely detailed (C) solid-colored
(D) smooth (E) luminous
37. GAIN SAY:
(A) fail
(B) destroy
(C) speak in support of
(D) receive compensation for
(E) regard with disgust
38. COMPLAISANCE: (A) churlishness
(B) emptiness (C) difficulty (D) swiftness
(E) vibrancy

SECTION 4

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. Social scientists have established fairly clear-cut _____ that describe the appropriate behavior of children and adults, but there seems to be _____ about what constitutes appropriate behavior for adolescents.

- (A) functions..rigidity
- (B) estimates..indirectness
- (C) norms..confusion
- (D) regulations..certainty
- (E) studies..misapprehension

2. As long as nations cannot themselves accumulate enough physical power to dominate all others, they must depend on _____.

- (A) allies (B) resources (C) freedom
- (D) education (E) self-determination

3. We realized that John was still young and impressionable, but were nevertheless surprised at his _____.

- (A) naïveté (B) obstinateness (C) decisiveness
- (D) ingenuousness (E) resolve

4. Although Mount Saint Helens has been more _____ during the last 4,500 years than any other volcano in the coterminous United States, its long dormancy before its recent eruption — its violent nature.

- (A) awe-inspiring..restrained
- (B) gaseous..confirmed
- (C) explosive..belied
- (D) familiar..moderated
- (E) volatile..suggested

5. Changes of fashion and public taste are often _____ and resistant to analysis, and yet they are among the most _____ gauges of the state of the public's collective consciousness.

- (A) transparent..useful
- (B) ephemeral..sensitive
- (C) faddish..underutilized
- (D) arbitrary..problematic
- (E) permanent..reliable

6. The poet W. H. Auden believed that the greatest poets of his age were almost necessarily irresponsible, that the possession of great gifts _____ the _____ to abuse them.

- (A) negates..temptation
- (B) controls..resolution
- (C) engenders..propensity
- (D) tempers..proclivity
- (E) obviates..inclination

7. The self-important cant of musicologists on record jackets often suggests that true appreciation of the music is an _____ process closed to the uninitiated listener, however enthusiastic.

- (A) unreliable (B) arcane (C) arrogant
- (D) elementary (E) intuitive

GO ON TO THE NEXT PAGE.

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. FORGERY : COUNTERFEIT ::

- (A) duplicity : testimony
- (B) arson : insurance
- (C) embezzlement : fraud
- (D) theft : punishment
- (E) murder : life

9. NICOTINE : TOBACCO ::

- (A) calcium : bone
- (B) iodine : salt
- (C) protein : meat
- (D) pulp : fruit
- (E) caffeine : coffee

10. CANDLE : WAX ::

- (A) metal : corrosion
- (B) leather : vinyl
- (C) curtain : pleat
- (D) tire : rubber
- (E) wood : ash

11. BIT : DRILL ::

- (A) nut : bolt
- (B) nail : hammer
- (C) blade : razor
- (D) stapler : paper
- (E) chisel : stone

12. MISJUDGE : ASSESS ::

- (A) misconstrue : interpret
- (B) misconduct : rehearse
- (C) misinform : design
- (D) misguide : duplicate
- (E) misperceive : explain

13. COMPLIANT : SERVILE ::

- (A) trusting : gullible
- (B) cringing : fawning
- (C) pleasant : effortless
- (D) adventurous : courageous
- (E) arduous : futile

14. ASTRINGENT : CONTRACTION ::

- (A) anesthetic : insensibility
- (B) analgesic : pain
- (C) coagulant : euphoria
- (D) stimulant : drowsiness
- (E) emollient : irritation

15. NOMINAL : FIGUREHEAD ::

- (A) absolute : autocrat
- (B) cloistered : bishop
- (C) military : tribunal
- (D) statutory : defendant
- (E) monolithic : legislature

16. PHILOSOPHER : COGITATE ::

- (A) linguist : prevaricate
- (B) politician : capitulate
- (C) scholar : extemporize
- (D) misanthrope : repeat
- (E) iconoclast : attack

GO ON TO THE NEXT PAGE.

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.

If a supernova (the explosion of a massive star) triggered star formation from dense clouds of gas and dust, and if the most massive star to be formed from the cloud evolved into a supernova and triggered a new round of star formation, and so on, then a chain of star-forming regions would result. If many such chains were created in a differentially rotating galaxy, the distribution of stars would resemble the observed distribution in a spiral galaxy.

This line of reasoning underlies an exciting new theory of spiral-galaxy structure. A computer simulation based on this theory has reproduced the appearance of many spiral galaxies without assuming an underlying density wave, the hallmark of the most widely accepted theory of the large-scale structure of spiral galaxies. That theory maintains that a density wave of spiral form sweeps through the central plane of a galaxy, compressing clouds of gas and dust, which collapse into stars that form a spiral pattern.

17. The primary purpose of the passage is to

- (A) describe what results when a supernova triggers the creation of chains of star-forming regions
- (B) propose a modification in the most widely accepted theory of spiral-galaxy structure
- (C) compare and contrast the roles of clouds of gas and dust in two theories of spiral-galaxy structure
- (D) describe a new theory of spiral-galaxy structure and contrast it with the most widely accepted theory
- (E) describe a new theory of spiral-galaxy structure and discuss a reason why it is inferior to the most widely accepted theory

18. The passage implies that, according to the new theory of spiral-galaxy structure, a spiral galaxy can be created by supernovas when the supernovas are
- (A) producing an underlying density wave
 - (B) affected by a density wave of spiral form
 - (C) distributed in a spiral pattern
 - (D) located in the central plane of a galaxy
 - (E) located in a differentially rotating galaxy
19. Which of the following, if true, would most discredit the new theory as described in the passage?
- (A) The exact mechanism by which a star becomes a supernova is not yet completely known and may even differ for different stars.
 - (B) Chains of star-forming regions like those postulated in the new theory have been observed in the vicinity of dense clouds of gas and dust.
 - (C) The most massive stars formed from supernova explosions are unlikely to evolve into supernovas.
 - (D) Computer simulations of supernovas provide a poor picture of what occurs just before a supernova explosion.
 - (E) A density wave cannot compress clouds of gas and dust to a density high enough to create a star.
20. The author's attitude toward the new theory of spiral-galaxy structure can best be described as
- (A) euphoric
 - (B) enthusiastic
 - (C) concerned
 - (D) critical
 - (E) disputatious

GO ON TO THE NEXT PAGE.

The first mention of slavery in the statutes of the English colonies of North America does not occur until after 1660—some forty years after the importation of the first Black people. Lest we think that slavery existed in

- (5) fact before it did in law, Oscar and Mary Handlin assure us that the status of Black people down to the 1660's was that of servants. A critique of the Handlins' interpretation of why legal slavery did not appear until the 1660's suggests that assumptions about the relation (10) between slavery and racial prejudice should be reexamined, and that explanations for the different treatment of Black slaves in North and South America should be expanded.

The Handlins explain the appearance of legal slavery (15) by arguing that, during the 1660's, the position of White servants was improving relative to that of Black servants. Thus, the Handlins contend, Black and White servants, heretofore treated alike, each attained a (20) different status. There are, however, important objections to this argument. First, the Handlins cannot adequately demonstrate that the White servant's position was improving during and after the 1660's; several acts of the Maryland and Virginia legislatures indicate otherwise. Another flaw in the Handlins' interpretation is (25) their assumption that prior to the establishment of legal slavery there was no discrimination against Black people. It is true that before the 1660's Black people were rarely called slaves. But this should not overshadow evidence from the 1630's on that points to racial discrimination without using the term slavery. Such discrimination sometimes stopped short of lifetime servitude or (30) inherited status—the two attributes of true slavery—yet in other cases it included both. The Handlins' argument excludes the real possibility that Black people in the (35) English colonies were never treated as the equals of White people.

This possibility has important ramifications. If from (40) the outset Black people were discriminated against, then legal slavery should be viewed as a reflection and an extension of racial prejudice rather than, as many historians including the Handlins have argued, the cause of prejudice. In addition, the existence of discrimination before the advent of legal slavery offers a further explanation for the harsher treatment of Black slaves in (45) North than in South America. Freyre and Tannenbaum have rightly argued that the lack of certain traditions in North America—such as a Roman conception of slavery and a Roman Catholic emphasis on equality—explains why the treatment of Black slaves was more severe there (50) than in the Spanish and Portuguese colonies of South America. But this cannot be the whole explanation since it is merely negative, based only on a lack of something. A more compelling explanation is that the early and sometimes extreme racial discrimination in the English (55) colonies helped determine the particular nature of the slavery that followed.

21. Which of the following statements best describes the organization of lines 1-8 of the passage?

- (A) A historical trend is sketched and an exception to that trend is cited.
(B) Evidence for a historical irregularity is mentioned and a generalization from that evidence is advanced.
(C) A paradox about the origins of an institution is pointed out and the author's explanation of the paradox is expounded.
(D) A statement about a historical phenomenon is offered and a possible misinterpretation of that statement is addressed.
(E) An interpretation of the rise of an institution is stated and evidence for that interpretation is provided.

22. Which of the following is the most logical inference to be drawn from the passage about the effects of "several acts of the Maryland and Virginia legislatures" (lines 22-23) passed during and after the 1660's?

- (A) The acts negatively affected the pre-1660's position of Black as well as of White servants.
(B) The acts had the effect of impairing rather than improving the position of White servants relative to what it had been before the 1660's.
(C) The acts had a different effect on the position of White servants than did many of the acts passed during this time by the legislatures of other colonies.
(D) The acts, at the very least, caused the position of White servants to remain no better than it had been before the 1660's.
(E) The acts, at the very least, tended to reflect the attitudes toward Black servants that already existed before the 1660's.

GO ON TO THE NEXT PAGE.

23. With which of the following statements regarding the status of Black people in the English colonies of North America before the 1660's would the author be LEAST likely to agree?
- (A) Although Black people were not legally considered to be slaves, they were often called slaves.
(B) Although subject to some discrimination, Black people had a higher legal status than they did after the 1660's.
(C) Although sometimes subject to lifetime servitude, Black people were not legally considered to be slaves.
(D) Although often not treated the same as White people, Black people, like many White people, possessed the legal status of servants.
(E) Although apparently subject to more discrimination after 1630 than before 1630, Black people from 1620 to the 1660's were legally considered to be servants.
24. According to the passage, the Handlins have argued which of the following about the relationship between racial prejudice and the institution of legal slavery in the English colonies of North America?
- (A) Racial prejudice and the institution of slavery arose simultaneously.
(B) Racial prejudice most often took the form of the imposition of inherited status, one of the attributes of slavery.
(C) The source of racial prejudice was the institution of slavery.
(D) Because of the influence of the Roman Catholic church, racial prejudice sometimes did not result in slavery.
(E) Although existing in a lesser form before the 1660's, racial prejudice increased sharply after slavery was legalized.
25. The passage suggests that the existence of a Roman conception of slavery in Spanish and Portuguese colonies had the effect of
- (A) extending rather than causing racial prejudice in these colonies
(B) hastening the legalization of slavery in these colonies
(C) mitigating some of the conditions of slavery for Black people in these colonies
(D) delaying the introduction of slavery into the English colonies
(E) bringing about an improvement in the treatment of Black slaves in the English colonies
26. The author considers the explanation put forward by Freyre and Tannenbaum for the treatment accorded Black slaves in the English colonies of North America to be
- (A) ambitious but misguided
(B) valid but limited
(C) popular but suspect
(D) anachronistic and controversial
(E) premature and illogical
27. With which of the following statements regarding the reason for the introduction of legal slavery in the English colonies of North America would the author be most likely to agree?
- (A) The introduction is partly to be explained by reference to the origins of slavery, before the 1660's, in the Spanish and Portuguese colonies.
(B) The introduction is to be explained by reference to a growing consensus beginning in the 1630's about what were the attributes of true slavery.
(C) The introduction is more likely to be explained by reference to a decline than to an improvement in the position of White servants in the colonies during and after the 1660's.
(D) The introduction is more likely to be explained by reference to the position of Black servants in the colonies in the 1630's than by reference to their position in the 1640's and 1650's.
(E) The introduction is more likely to be explained by reference to the history of Black people in the colonies before 1660 than by reference to the improving position of White servants during and after the 1660's.

GO ON TO THE NEXT PAGE.

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. ASSET: (A) duty (B) qualification
(C) denial (D) liability (E) instability
29. CONCUR: (A) expose (B) incite
(C) prolong (D) dissent (E) forgive
30. AMALGAMATE: (A) congregate
(B) insulate (C) isolate (D) layer (E) revive
31. FERROUS:
(A) affected by rust
(B) containing no iron
(C) chemically inert
(D) combined with water
(E) permanently magnetized
32. PHLEGMATIC: (A) vivacious (B) valiant
(C) arid (D) healthy (E) mature

33. PRODIGIOUS: (A) implicit (B) slight
(C) constant (D) unnecessary (E) premature
34. CORROBORATION:
(A) weakening of utility
(B) lessening of certainty
(C) reduction in generality
(D) implausibility
(E) inadequacy
35. PALPABILITY: (A) infertility
(B) inflammability (C) intangibility
(D) intractability (E) intolerability
36. ALACRITY:
(A) hesitance and reluctance
(B) caution and fear
(C) cynicism and skepticism
(D) suspicion and doubt
(E) concern and anxiety
37. MANNERED: (A) plain (B) infantile
(C) progressive (D) ignorant (E) natural
38. DISSEMBLE: (A) act conventionally
(B) put together (C) appear promptly
(D) behave honestly (E) obtain readily

FOR GENERAL TEST 4 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 4			Section 2			Section 5			Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	B	96	1	C	89	1	B	93	1	B	84	1	D	73	1	D	88
2	E	89	2	A	92	2	A	37	2	C	37	2	B	72	2	A	75
3	B	60	3	A	71	3	B	32	3	A	32	3	D	51	3	B	51
4	D	51	4	C	50	4	B	85	4	B	35	4	E	74	4	A	66
5	E	39	5	B	41	5	D	77	5	C	34	5	B	80	5	E	44
6	E	39	6	C	47	6	A	71	6	A	30	6	C	65	5	E	33
7	D	28	7	B	38	7	A	74	7	D	77	7	A	72	7	B	55
8	B	84	8	C	91	8	C	69	8	A	65	8	C	54	8	C	82
9	A	61	9	E	92	9	D	62	9	C	54	9	E	53	9	C	77
10	E	54	10	D	87	10	B	66	10	A	61	10	D	50	10	D	51
11	B	65	11	C	76	11	A	65	11	D	62	11	C	54	11	D	75
12	C	49	12	A	71	12	C	53	12	D	53	12	D	58	12	B	40
13	E	36	13	A	52	13	C	37	13	A	55	13	A	43	13	A	37
14	A	29	14	A	37	14	D	45	14	B	35	14	D	43	14	E	41
15	E	35	15	A	41	15	C	37	15	D	30	15	E	32	15	D	56
16	B	22	16	E	19	16	B	81	16	C	91	16	A	33	16	B	58
17	C	70	17	D	63	17	E	30	17	E	37	17	B	54	17	C	35
18	B	57	18	E	51	18	E	91	18	C	88	18	B	38	18	D	32
19	E	82	19	C	36	19	B	56	19	B	76	19	A	43	19	A	27
20	D	58	20	B	84	20	E	52	20	D	63	20	E	30	20	A	72
21	C	56	21	D	48	21	A	90	21	B	70	21	C	61	21	B	27
22	D	40	22	D	42	22	D	90	22	E	91	22	C	42	22	C	36
23	E	63	23	A	27	23	D	58	23	D	77	23	D	49	23	C	47
24	A	53	24	C	45	24	B	54	24	A	22	24	A	39	24	B	41
25	B	50	25	C	60	25	A	46	25	B	27	25	E	30	25	E	30
26	D	46	26	B	61	26	C	65	26	B	68						
27	E	63	27	E	45	27	A	52	27	D	53						
28	C	90	28	D	84	28	C	43	28	B	60						
29	B	84	29	D	77	29	D	27	29	A	54						
30	E	80	30	C	73	30	A	34	30	E	43						
31	B	74	31	B	74												
32	D	75	32	A	39												
33	B	54	33	B	44												
34	A	35	34	B	46												
35	A	37	35	C	45												
36	C	39	36	A	35												
37	C	33	37	E	20												
38	A	23	38	O	10												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. Heavily perfumed white flowers, such as gardenias, were favorites with collectors in the eighteenth century, when ----- was valued much more highly than it is today.
(A) scent (B) beauty (C) elegance
(D) color (E) variety
2. In a most impressive demonstration, Pavarotti sailed through Verdi's "Celeste Aïda," normally a tenor's -----, with the casual enthusiasm of a folk singer performing one of his favorite -----.
(A) pitfall..recitals (B) glory..chorales
(C) nightmare..ballads (D) delight..chanteys
(E) routine..composers
3. Dependence on foreign sources of heavy metals, though -----, remains ----- for United States foreign policy.
(A) deepening..a challenge
(B) diminishing..a problem
(C) excessive..a dilemma
(D) debilitating..an embarrassment
(E) unavoidable..a precedent
4. Cynics believe that people who ----- compliments do so in order to be praised twice.
(A) bask in (B) give out (C) despair of
(D) gloat over (E) shrug off

5. Although nothing could be further from the truth, freight railroads have been ----- of ----- the nation's shift from oil to coal by charging exorbitant fees to transport coal.
(A) accused..impeding
(B) proud..accelerating
(C) guilty..delaying
(D) conscious..contributing to
(E) wary..interfering with
6. Although the revelation that one of the contestants was a friend left the judge open to charges of lack of -----, the judge remained adamant in her assertion that acquaintance did not necessarily imply -----.
(A) prudence..tolerance
(B) detachment..foreknowledge
(C) exoneration..impropriety
(D) prejudice..preference
(E) disinterestedness..partiality
7. Within the next decade, sophisticated telescopes now orbiting the Earth will determine whether the continents really are moving, ----- the incipient ----- among geologists about the validity of the theory of continental drift.
(A) obviating..consensus
(B) forestalling..rift
(C) escalating..debates
(D) engendering..speculation
(E) resolving..rumors

GO ON TO THE NEXT PAGE.

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. PEDIATRICS : CHILDREN ::

- (A) dermatology : skin
- (B) pathology : medicine
- (C) meteorology : forecasts
- (D) neurology : psychologists
- (E) ecology : environmentalists

9. CREASE : FOLDING :: (A) serration : braiding
(B) hole : perforating (C) dent : weakening
(D) break : setting (E) gouge : cracking

10. DAGGER : SCABBARD ::

- (A) bow : quiver
- (B) pistol : holster
- (C) lasso : saddle
- (D) rifle : sight
- (E) spear : shaft

11. SUBPOENA : WITNESS ::

- (A) suborn : judge
- (B) tax : worker
- (C) elect : officer
- (D) conscript : soldier
- (E) hire : laborer

12. LUBRICATE : ABRASION ::

- (A) burnish : decomposition
- (B) vent : distillation
- (C) tamp : adhesion
- (D) seal : leakage
- (E) irrigate : drainage

13. ASTROLOGY : ASTRONOMY ::

- (A) alchemy : chemistry
- (B) homeopathy : zoology
- (C) mythology : classics
- (D) pedagogy : philosophy
- (E) phenomenology : linguistics

14. MALAPROPISM : VERBAL ::

- (A) heresy : moral (B) hoax : cognitive
- (C) gaffe : social (D) feint : martial
- (E) perjury : legislative

15. PLUCK : QUIT :: (A) verve : flinch
(B) gall : skimp (C) pride : grovel
(D) charm : smile (E) poise : waver

16. PARENTHESIS : EXPLANATION ::

- (A) synopsis : affectation
- (B) apostrophe : annotation
- (C) synthesis : interpolation
- (D) ellipsis : omission
- (E) asterisk : exaggeration

GO ON TO THE NEXT PAGE.

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.

The use of heat pumps has been held back largely by skepticism about advertisers' claims that heat pumps can provide as many as two units of thermal energy for each unit of electrical energy

- (5) used, thus apparently contradicting the principle of energy conservation.

Heat pumps circulate a fluid refrigerant that cycles alternatively from its liquid phase to its vapor phase in a closed loop. The refrigerant,

- (10) starting as a low-temperature, low-pressure vapor, enters a compressor driven by an electric motor. The refrigerant leaves the compressor as a hot, dense vapor and flows through a heat exchanger called the condenser, which transfers heat from the (15) refrigerant to a body of air. Now the refrigerant, as a high-pressure, cooled liquid, confronts a flow restriction which causes the pressure to drop. As the pressure falls, the refrigerant expands and partially vaporizes, becoming chilled. It then passes (20) through a second heat exchanger, the evaporator, which transfers heat from the air to the refrigerant, reducing the temperature of this second body of air. Of the two heat exchangers, one is located inside, and the other one outside the house, so (25) each is in contact with a different body of air: room air and outside air, respectively.

The flow direction of refrigerant through a heat pump is controlled by valves. When the refrigerant flow is reversed, the heat exchangers switch function.

- (30) This flow-reversal capability allows heat pumps either to heat or cool room air.

Now, if under certain conditions a heat pump puts out more thermal energy than it consumes in electrical energy, has the law of energy conserva-

- (35) tion been challenged? No, not even remotely: the additional input of thermal energy into the circulating refrigerant via the evaporator accounts for the difference in the energy equation.

Unfortunately, there is one real problem. The

- (40) heating capacity of a heat pump decreases as the outdoor temperature falls. The drop in capacity is caused by the lessening amount of refrigerant mass moved through the compressor at one time. The heating capacity is proportional to this mass flow

- (45) rate: the less the mass of refrigerant being compressed, the less the thermal load it can transfer through the heat-pump cycle. The volume flow rate of refrigerant vapor through the single-speed rotary compressor used in heat pumps is approxi-

- (50) mately constant. But cold refrigerant vapor entering a compressor is at lower pressure than warmer vapor. Therefore, the mass of cold refrigerant—and thus the thermal energy it carries—is less than

if the refrigerant vapor were warmer before compression.

Here, then, lies a genuine drawback of heat pumps: in extremely cold climates—where the most heat is needed—heat pumps are least able to supply enough heat.

17. The primary purpose of the passage is to

- (A) explain the differences in the working of a heat pump when the outdoor temperature changes
(B) contrast the heating and the cooling modes of heat pumps
(C) describe heat pumps, their use, and factors affecting their use
(D) advocate the more widespread use of heat pumps
(E) expose extravagant claims about heat pumps as false

18. The author resolves the question of whether heat pumps run counter to the principle of energy conservation by

- (A) carefully qualifying the meaning of that principle
(B) pointing out a factual error in the statement that gives rise to this question
(C) supplying additional relevant facts
(D) denying the relevance of that principle to heat pumps
(E) explaining that heat pumps can cool, as well as heat, room air

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19. It can be inferred from the passage that, in the course of a heating season, the heating capacity of a heat pump is greatest when
- (A) heating is least essential
 - (B) electricity rates are lowest
 - (C) its compressor runs the fastest
 - (D) outdoor temperatures hold steady
 - (E) the heating demand surges
20. If the author's assessment of the use of heat pumps (lines 1-6) is correct, which of the following best expresses the lesson that advertisers should learn from this case?
- (A) Do not make exaggerated claims about the products you are trying to promote.
 - (B) Focus your advertising campaign on vague analogies and veiled implications instead of on facts.
 - (C) Do not use facts in your advertising that will strain the prospective client's ability to believe.
 - (D) Do not assume in your advertising that the prospective clients know even the most elementary scientific principles.
 - (E) Concentrate your advertising firmly on financially relevant issues such as price discounts and efficiency of operation.
21. The passage suggests that heat pumps would be used more widely if
- (A) they could also be used as air conditioners
 - (B) they could be moved around to supply heat where it is most needed
 - (C) their heat output could be thermostatically controlled
 - (D) models with truly superior cooling capacity were advertised more effectively
 - (E) people appreciated the role of the evaporator in the energy equation
22. According to the passage, the role of the flow restriction (lines 16-17) in a heat pump is to
- (A) measure accurately the flow rate of the refrigerant mass at that point
 - (B) compress and heat the refrigerant vapor
 - (C) bring about the evaporation and cooling of refrigerant
 - (D) exchange heat between the refrigerant and the air at that point
 - (E) reverse the direction of refrigerant flow when needed
23. The author regards the notion that heat pumps have a genuine drawback as a
- (A) cause for regret
 - (B) sign of premature defeatism
 - (C) welcome challenge
 - (D) case of sloppy thinking
 - (E) focus for an educational campaign

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All of Françoise Duparc's surviving paintings blend portraiture and genre. Her subjects appear to be acquaintances whom she has asked to pose; she has captured both their self-consciousness and the spontaneity of their everyday activities, the depiction of which characterizes genre painting. But genre painting, especially when it portrayed members of the humblest classes, was never popular in eighteenth-century France. The Le Nain brothers and Georges de La Tour, who also chose such themes, were largely ignored. Their present high standing is due to a different, more democratic political climate and to different aesthetic values: we no longer require artists to provide ideal images of humanity for our moral edification but rather regard such idealization as a falsification of the truth. Duparc gives no improving message and discreetly refrains from judging her subjects. In brief, her works neither elevate nor instruct. This restraint largely explains her lack of popular success during her lifetime, even if her talent did not go completely unrecognized by her eighteenth-century French contemporaries.

24. According to the passage, modern viewers are not likely to value which of the following qualities in a painting?

- (A) The technical elements of the painting
- (B) The spontaneity of the painting
- (C) The moral lesson imparted by the painting
- (D) The degree to which the painting realistically depicts its subject
- (E) The degree to which the artist's personality is revealed in the painting

25. If the history of Duparc's artistic reputation were to follow that of the Le Nain brothers and Georges de La Tour, present-day assessments of her work would be likely to contain which of the following?

- (A) An evaluation that accords high status to her work
- (B) Acknowledgement of her technical expertise but dismissal of her subject matter as trivial
- (C) Agreement with assessments made in her own time but acknowledgements of the exceptional quality of a few of her paintings
- (D) Placement of her among the foremost artists of her century
- (E) A reclassification of her work as portraiture rather than genre painting

26. It can be inferred from the passage that the term "genre painting" would most likely apply to which of the following?

- (A) A painting depicting a glorious moment of victory following a battle
- (B) A painting illustrating a narrative from the Bible
- (C) A portrayal of a mythological Greek goddess
- (D) A portrayal of a servant engaged in his work
- (E) A formal portrait of an eighteenth-century king

27. The argument of the passage best supports which of the following contentions concerning judgments of artistic work?

- (A) Aesthetic judgments can be influenced by the political beliefs of those making the judgment.
- (B) Judgments of the value of an artist's work made by his or her contemporaries must be discounted before a true judgment can be made.
- (C) Modern aesthetic taste is once again moving in the direction of regarding idealistic painting as the most desirable form of painting.
- (D) In order to be highly regarded, an artist cannot be solely identified with one particular kind of painting.
- (E) Spontaneity is the most valuable quality a portrait painter can have.

GO ON TO THE NEXT PAGE.

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. TURBULENCE: (A) moderation
(B) tranquillity (C) immunity
(D) correlation (E) meditation
29. DEHYDRATE:
(A) make soluble
(B) separate electrolytically
(C) combine with oxygen
(D) saturate with water
(E) expose to hydrogen
30. LOLL: (A) comply readily
(B) move vigorously (C) describe exactly
(D) notice incidentally (E) insist strongly
31. INTREPID: (A) morbid (B) forbearing
(C) temperate (D) apprehensive (E) abundant

32. PRECURSORY: (A) derivative (B) ephemeral
(C) original (D) essential (E) solid
33. PERENNIAL: (A) predictable (B) latent
(C) engrossing (D) infertile (E) fleeting
34. DISPARATE: (A) homogeneous
(B) cumulative (C) invariable
(D) cooperative (E) cogent
35. FULMINATION: (A) repetition (B) addition
(C) ratification (D) praise (E) escape
36. EBULLIENCE: (A) confusion (B) pretension
(C) introspection (D) absentmindedness
(E) impassiveness
37. PREDILECTION: (A) unwillingness to choose
(B) desire to please (C) ambiguity
(D) stereotype (E) propensity to dislike
38. BANAL: (A) faithful (B) arresting
(C) inclined (D) forced (E) elaborate

SECTION 4

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. The commission criticized the legislature for making college attendance dependent on the ability to pay, charging that, as a result, hundreds of qualified young people would be ----- further education.
(A) entitled to (B) striving for
(C) deprived of (D) uninterested in
(E) participating in
2. In most Native American cultures, an article used in prayer or ritual is made with extraordinary attention to and richness of detail: it is decorated more ----- than a similar article intended for ----- use.
(A) delicately . . vocational
(B) colorfully . . festive
(C) creatively . . religious
(D) subtly . . commercial
(E) lavishly . . everyday
3. Having no sense of moral obligation, Shipley was as little subject to the ----- of conscience after he acted as he was motivated by its ----- before he acted.
(A) rewards . . chastisement
(B) balm . . eloquence
(C) reproaches . . promptings
(D) ridicule . . allure
(E) qualms . . atonement

4. Freud derived psychoanalytic knowledge of childhood indirectly: he ----- childhood processes from adult -----.
(A) reconstructed . . memory
(B) condoned . . experience
(C) incorporated . . behavior
(D) released . . monotony
(E) inferred . . anticipation
5. While she initially suffered the fate of many pioneers—the incomprehension of her colleagues—octogenarian Nobel laureate Barbara McClintock has lived to ----- the triumph of her once ----- scientific theories.
(A) descry . . innovative
(B) regret . . insignificant
(C) perpetuate . . tentative
(D) enjoy . . authoritative
(E) savor . . heterodox
6. Broadway audiences have become inured to ----- and so ----- to be pleased as to make their ready ovations meaningless as an indicator of the quality of the production before them.
(A) sentimentality . . reluctant
(B) condescension . . disinclined
(C) histrionics . . unlikely
(D) cleverness . . eager
(E) mediocrity . . desperate
7. Any language is a conspiracy against experience in the sense that it is a collective attempt to ----- experience by reducing it into discrete parcels.
(A) extrapolate (B) transcribe (C) complicate
(D) amplify (E) manage

GO ON TO THE NEXT PAGE.

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. CENSUS : POPULATION :: (A) itinerary : journeys
(B) inventory : merchandise (C) roster : audience
(D) slate : incumbents (E) manifest : debts

9. INEVITABLE : CHANCE ::
(A) absolute : variability (B) candid : openness
(C) certain : regularity (D) relaxed : diligence
(E) sincere : hesitancy

10. DART : MISSILE :: (A) skiff : boat
(B) planet : star (C) page : volume
(D) finger : thumb (E) car : truck

11. DECIBEL : SOUND :: (A) gallon : water
(B) lumen : light (C) band : signal
(D) weight : mineral (E) scale : music

12. STICKLER : APPROXIMATION ::
(A) leader : guidance
(B) connoisseur : anachronism
(C) sluggard : indolence
(D) purist : adulteration
(E) scientist : theorizing

13. SYNONYMOUS : MEANING ::

- (A) interchangeable : function
(B) equivocal : interpretation
(C) coincidental : cause
(D) ambidextrous : skill
(E) bilingual : language

14. INSIPID : INVENTION ::

- (A) ironic : gravity (B) realistic : originality
(C) generic : artistry (D) foppish : affection
(E) prosaic : imagination

15. STREAM : EDDY :: (A) trend : anomaly
(B) shove : punch (C) assault : defeat
(D) force : motion (E) illness : symptom

16. PIRATE : TAKE :: (A) burgle : steal
(B) forge : copy (C) renege : promise
(D) liberate : free (E) retreat : withdraw

GO ON TO THE NEXT PAGE.

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.

Mycorrhizal fungi infect more plants than do any other fungi and are necessary for many plants to thrive, but they have escaped widespread investigation until recently for two reasons. First, the symbiotic association is so well-balanced that the roots of host plants show no damage even when densely infected. Second, the fungi cannot as yet be cultivated in the absence of a living root. Despite these difficulties, there has been important new work that suggests that this symbiotic association can be harnessed to achieve more economical use of costly superphosphate fertilizer and to permit better exploitation of cheaper, less soluble rock phosphate. Mycorrhizal benefits are not limited to improved phosphate uptake in host plants. In legumes, mycorrhizal inoculation has increased nitrogen fixation beyond levels achieved by adding phosphate fertilizer alone. Certain symbiotic associations also increase the host plant's resistance to harmful root fungi. Whether this resistance results from exclusion of harmful fungi through competition for sites, from metabolic change involving antibiotic production, or from increased vigor is undetermined.

17. Which of the following most accurately describes the passage?
- (A) A description of a replicable experiment
 - (B) A summary report of new findings
 - (C) A recommendation for abandoning a difficult area of research
 - (D) A refutation of an earlier hypothesis
 - (E) A confirmation of earlier research
18. The level of information in the passage above is suited to the needs of all of the following people EXCEPT
- (A) a researcher whose job is to identify potentially profitable areas for research and product development
 - (B) a state official whose position requires her to alert farmers about possible innovations in farming
 - (C) an official of a research foundation who identifies research projects for potential funding
 - (D) a biologist attempting to keep up with scientific developments in an area outside of his immediate area of specialization
 - (E) a botanist conducting experiments to determine the relationship between degree of mycorrhizal infection and expected uptake of phosphate
19. It can be inferred from the passage that which of the following has been a factor influencing the extent to which research on mycorrhizal fungi has progressed?
- (A) Lack of funding for such research
 - (B) Lack of immediate application of such research
 - (C) Lack of a method for identifying mycorrhizal fungi
 - (D) Difficulties surrounding laboratory production of specimens for study
 - (E) Difficulties ensuing from the high cost and scarcity of superphosphate fertilizers
20. The passage suggests which of the following about the increased resistance to harmful root fungi that some plants infected with mycorrhizal fungi seem to exhibit?
- (A) There are at least three hypotheses that might account for the increase.
 - (B) An explanation lies in the fact that mycorrhizal fungi increase more rapidly in number than harmful root fungi do.
 - (C) The plants that show increased resistance also exhibit improved nitrogen fixation.
 - (D) Such increases may be independent of mycorrhizal infection.
 - (E) It is unlikely that a satisfactory explanation can be found to account for the increase.

GO ON TO THE NEXT PAGE.

- In the early 1950's, historians who studied pre-industrial Europe (which we may define here as Europe in the period from roughly 1300 to 1800) began, for the first time in large numbers, to investigate more of the preindustrial European population than the 2 or 3 percent who comprised the political and social elite: the kings, generals, judges, nobles, bishops, and local magnates who had hitherto usually filled history books. One difficulty, however, was that few of the remaining 97 percent recorded their thoughts or had them chronicled by contemporaries. Faced with this situation, many historians based their investigations on the only records that seemed to exist: birth, marriage, and death records. As a result, much of the early work on the nonelite was aridly statistical in nature; reducing the vast majority of the population to a set of numbers was hardly more enlightening than ignoring them altogether. Historians still did not know what these people thought or felt.
- One way out of this dilemma was to turn to the records of legal courts, for here the voices of the nonelite can most often be heard, as witnesses, plaintiffs, and defendants. These documents have acted as "a point of entry into the mental world of the poor." Historians such as Le Roy Ladurie have used the documents to extract case histories, which have illuminated the attitudes of different social groups (these attitudes include, but are not confined to, attitudes toward crime and the law) and have revealed how the authorities administered justice. It has been societies that have had a developed police system and practiced Roman law, with its written depositions, whose court records have yielded the most data to historians. In Anglo-Saxon countries hardly any of these benefits obtain, but it has still been possible to glean information from the study of legal documents.
- The extraction of case histories is not, however, the only use to which court records may be put. Historians who study preindustrial Europe have used the records to establish a series of categories of crime and to quantify indictments that were issued over a given number of years. This use of the records does yield some information about the nonelite, but this information gives us little insight into the mental lives of the nonelite. We also know that the number of indictments in preindustrial Europe bears little relation to the number of actual criminal acts, and we strongly suspect that the relationship has varied widely over time. In addition, aggregate population estimates are very shaky, which makes it difficult for historians to compare rates of crime per thousand in one decade of the preindustrial period with rates in another decade. Given these inadequacies, it is clear why the case history use of court records is to be preferred.

21. The author suggests that, before the early 1950's, most historians who studied preindustrial Europe did which of the following?
- Failed to make distinctions among members of the preindustrial European political and social elite.
 - Used investigatory methods that were almost exclusively statistical in nature.
 - Inaccurately estimated the influence of the preindustrial European political and social elite.
 - Confined their work to a narrow range of the preindustrial European population.
 - Tended to rely heavily on birth, marriage, and death records.
22. According to the passage, the case histories extracted by historians have
- scarcely illuminated the attitudes of the political and social elite
 - indicated the manner in which those in power apportioned justice
 - focused almost entirely on the thoughts and feelings of different social groups toward crime and the law
 - been considered the first kind of historical writing that utilized the records of legal courts
 - been based for the most part on the trial testimony of police and other legal authorities
23. It can be inferred from the passage that much of the early work by historians on the European nonelite of the preindustrial period might have been more illuminating if these historians had
- used different methods of statistical analysis to investigate the nonelite
 - been more successful in identifying the attitudes of civil authorities, especially those who administered justice, toward the nonelite
 - been able to draw on more accounts, written by contemporaries of the nonelite, that described what this nonelite thought
 - relied more heavily on the personal records left by members of the European political and social elite who lived during the period in question
 - been more willing to base their research on the birth, marriage, and death records of the nonelite

GO ON TO THE NEXT PAGE.

24. The author mentions Le Roy Ladurie (line 26) in order to
- (A) give an example of a historian who has made one kind of use of court records
 - (B) cite a historian who has based case histories on the birth, marriage, and death records of the nonelite
 - (C) identify the author of the quotation cited in the previous sentence
 - (D) gain authoritative support for the view that the case history approach is the most fruitful approach to court records
 - (E) point out the first historian to realize the value of court records in illuminating the beliefs and values of the nonelite
25. According to the passage, which of the following is true of indictments for crime in Europe in the pre-industrial period?
- (A) They have, in terms of their numbers, remained relatively constant over time.
 - (B) They give the historian important information about the mental lives of those indicted.
 - (C) They are not a particularly accurate indication of the extent of actual criminal activity.
 - (D) Their importance to historians of the nonelite has been generally overestimated.
 - (E) Their problematic relationship to actual crime has not been acknowledged by most historians.
26. It can be inferred from the passage that a historian who wished to compare crime rates per thousand in a European city in one decade of the fifteenth century with crime rates in another decade of that century would probably be most aided by better information about which of the following?
- (A) The causes of unrest in the city during the two decades
 - (B) The aggregate number of indictments in the city nearest to the city under investigation during the two decades
 - (C) The number of people who lived in the city during each of the decades under investigation
 - (D) The mental attitudes of criminals in the city, including their feelings about authority, during each of the decades under investigation
 - (E) The possibilities for a member of the city's nonelite to become a member of the political and social elite during the two decades
27. The passage would be most likely to appear as part of
- (A) a book review summarizing the achievements of historians of the European aristocracy
 - (B) an essay describing trends in the practice of writing history
 - (C) a textbook on the application of statistical methods in the social sciences
 - (D) a report to the historical profession on the work of early-twentieth-century historians
 - (E) an article urging the adoption of historical methods by the legal profession

GO ON TO THE NEXT PAGE.

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. DOMINATE:

- (A) have no ability to
- (B) have no control over
- (C) be irreconcilable
- (D) be angry
- (E) be undisciplined

29. SIDESTEP:

- (A) confront directly
- (B) detain temporarily
- (C) comprehend accurately
- (D) judge hastily
- (E) treat fairly

30. FACILITATE: (A) hallow (B) hamper
(C) hurdle (D) hide (E) hold

31. MUNDANE: (A) sufficient (B) superior
(C) exotic (D) agile (E) perfect

32. ELASTICITY: (A) lack of spontaneity
(B) lack of tension (C) lack of resilience
(D) symmetry (E) permanence

33. APPRISE: (A) oblige (B) underrate
(C) apply pressure (D) offer encouragement
(E) withhold information

34. SQUALID: (A) florid (B) extraneous
(C) fervid (D) abundant (E) pristine

35. MANIPULATIVE: (A) impassioned
(B) lethargic (C) inept
(D) guileless (E) unaltered

36. ANTIPATHY:

- (A) pronounced talent
- (B) settled fondness
- (C) concealed passion
- (D) cultivated nostalgia
- (E) sustained interest

37. FLEDGE: (A) seek (B) call
(C) mate (D) emit (E) molt

38. DIATRIBE: (A) encomium (B) epitome
(C) euphemism (D) epistle (E) epigram

FOR GENERAL TEST 5 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 2			Section 4			Section 3			Section 6			Section 1			Section 5		
Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +
1	A	89	1	C	93	1	A	85	1	A	92	1	B	93	1	B	93
2	C	75	2	E	75	2	C	82	2	B	91	2	D	86	2	C	71
3	B	76	3	C	63	3	B	85	3	B	87	3	A	90	3	D	57
4	E	69	4	A	66	4	B	76	4	A	78	4	D	70	4	A	69
5	A	75	5	E	85	5	A	75	5	D	84	5	C	68	5	B	76
6	E	41	6	E	51	6	A	75	6	A	88	6	B	60	6	D	66
7	B	10	7	E	15	7	A	69	7	D	85	7	E	56	7	B	59
8	A	83	8	B	85	8	D	59	8	C	77	8	A	86	8	C	87
9	B	70	9	A	80	9	B	62	9	S	79	9	C	67	9	A	86
10	B	71	10	A	54	10	A	54	10	C	64	10	A	81	10	E	77
11	O	56	11	B	51	11	C	58	11	C	65	11	C	69	11	N	44
12	O	57	12	O	52	12	C	49	12	C	63	12	E	58	12	N	51
13	A	61	13	A	37	13	D	42	13	D	57	13	C	82	13	D	42
14	C	38	14	E	30	14	B	42	14	D	45	14	D	24	14	C	58
15	C	29	15	A	27	15	D	26	15	A	28	15	D	48	15	E	21
16	D	29	16	B	26	16	A	94	16	C	87	16	B	32	16	A	41
17	C	73	17	B	83	17	A	84	17	A	80	17	E	36	17	C	36
18	C	55	18	E	35	18	E	81	18	A	35	18	B	54	18	A	23
19	A	60	19	D	65	19	D	76	19	E	83	19	B	38	19	A	30
20	C	43	20	A	57	20	B	73	20	B	83	20	C	42	20	E	39
21	E	18	21	D	61	21	C	93	21	D	86	21	E	22	21	E	16
22	C	64	22	B	39	22	E	85	22	B	57	22	A	18	22	C	32
23	A	56	23	C	66	23	C	76	23	A	49	23	A	49	23	E	61
24	C	58	24	A	59	24	B	82	24	E	36	24	D	39	24	B	64
25	A	37	25	C	73	25	D	38	25	E	23	25	E	26	25	D	68
26	D	75	26	C	50	26	C	58	26	D	69						
27	A	55	27	B	50	27	C	45	27	D	62						
28	B	90	28	B	93	28	B	50	28	A	58						
29	O	88	29	A	92	29	C	50	29	C	63						
30	B	76	30	B	80	30	D	26	30	D	44						
31	O	42	31	C	74												
32	A	46	32	C	57												
33	E	47	33	E	53												
34	A	40	34	E	35												
35	D	25	35	D	42												
36	E	27	36	B	29												
37	E	24	37	E	23												
38	B	21	38	A	21												

*Estimated P + for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 6

SECTION I

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. By divesting himself of all regalities, the former king — the consideration that customarily protects monarchs.
(A) merited (B) forfeited (C) debased
(D) concealed (E) extended
2. A perennial goal in zoology is to infer function from —, relating the — of an organism to its physical form and cellular organization.
(A) age..ancestry
(B) classification..appearance
(C) size..movement
(D) structure..behavior
(E) location..habitat
3. The sociologist responded to the charge that her new theory was — by pointing out that it did not in fact contradict accepted sociological principles.
(A) banal (B) heretical (C) unproven
(D) complex (E) superficial
4. Industrialists seized economic power only after industry had — agriculture as the preeminent form of production; previously such power had — land ownership.
(A) sabotaged..threatened
(B) overtaken..produced
(C) toppled..culminated in
(D) joined..relied on
(E) supplanted..resided in
5. Rumors, embroidered with detail, live on for years, neither denied nor confirmed, until they become accepted as fact even among people not known for their —.
(A) insight (B) obstinacy (C) introspection
(D) tolerance (E) credulity
6. No longer — by the belief that the world around us was expressly designed for humanity, many people try to find intellectual — for that lost certainty in astrology and in mysticism.
(A) satisfied..reasons
(B) sustained..substitutes
(C) reassured..justifications
(D) hampered..equivalents
(E) restricted..parallels
7. People should not be praised for their virtue if they lack the energy to be —; in such cases, goodness is merely the effect of —.
(A) depraved..hesitation
(B) cruel..effortlessness
(C) wicked..indolence
(D) unjust..boredom
(E) iniquitous..impiety

GO ON TO THE NEXT PAGE.

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. SKELETON : ANIMAL :: (A) ivory : piano
(B) peel : fruit (C) ore : mine
(D) mast : ship (E) framing : building

9. OUTSKIRTS : TOWN ::
(A) rung : ladder
(B) trunk : tree
(C) water : goblet
(D) margin : page
(E) hangar : airplane

10. AMORPHOUSNESS : DEFINITION ::
(A) lassitude : energy
(B) spontaneity : awareness
(C) angularity : intricacy
(D) rectitude : drabness
(E) precision : uniformity

11. COLLUSION : CONSPIRATORS ::
(A) conclusion : messengers
(B) revision : correspondents
(C) identification : arbitrators
(D) attribution : interpreters
(E) cooperation : partners

12. DIVERT : SHUNT :: (A) file : collate
(B) collide : dent (C) guess : calibrate
(D) retard : brake (E) inspect : magnify

13. EQUIVOCATE : COMMITMENT ::
(A) procrastinate : action
(B) implicate : exposition
(C) expostulate : confusion
(D) corroborate : falsification
(E) fabricate : explanation

14. ARMADA : VEHICLES ::
(A) drill : recruits
(B) planning : logistics
(C) infantry : cavalry
(D) fusillade : projectiles
(E) supply : munitions

15. LACONIC : SPEECH ::
(A) believable : excuse
(B) unyielding : attitude
(C) austere : design
(D) somber : procession
(E) gradual : transition

16. GROW : BURGEON :: (A) beat : palpitate
(B) transport : entrapre (C) flourish : thrive
(D) rot : decay (E) evolve : multiply

GO ON TO THE NEXT PAGE.

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.

The belief that art originates in intuitive rather than rational faculties was worked out historically and philosophically in the somewhat wearisome volumes of Benedetto Croce, who is usually considered the originator of a new aesthetic. Croce was, in fact, expressing a very old idea. Long before the Romantics stressed intuition and self-expression, the frenzy of inspiration was regarded as fundamental to art, but philosophers had always assumed it must be controlled by law and by the intellectual power of putting things into harmonious order. This general philosophic concept of art was supported by technical necessities. It was necessary to master certain laws and to use intellect in order to build Gothic cathedrals, or set up the stained glass windows of Chartres. When this bracing element of craftsmanship ceased to dominate artists' outlook, new technical elements had to be adopted to maintain the intellectual element in art. Such were linear perspective and anatomy.

17. The passage suggests that which of the following would most likely have occurred if linear perspective and anatomy had not come to influence artistic endeavor?

- (A) The craftsmanship that shaped Gothic architecture would have continued to dominate artists' outlooks.
- (B) Some other technical elements would have been adopted to discipline artistic inspiration.
- (C) Intellectual control over artistic inspiration would not have influenced painting as it did architecture.
- (D) The role of intuitive inspiration would not have remained fundamental to theories of artistic creation.
- (E) The assumptions of aesthetic philosophers before Croce would have been invalidated.

18. The passage supplies information for answering which of the following questions?

- (A) Does Romantic art exhibit the triumph of intuition over intellect?
- (B) Did an emphasis on linear perspective and anatomy dominate Romantic art?
- (C) Are the intellectual and intuitive faculties harmoniously balanced in post-Romantic art?
- (D) Are the effects of the rational control of artistic inspiration evident in the great works of pre-Romantic eras?
- (E) Was the artistic craftsmanship displayed in Gothic cathedrals also an element in paintings of this period?

19. The passage implies that which of the following was a traditional assumption of aesthetic philosophers?

- (A) Intellectual elements in art exert a necessary control over artistic inspiration.
- (B) Architecture has never again reached the artistic greatness of the Gothic cathedrals.
- (C) Aesthetic philosophy is determined by the technical necessities of art.
- (D) Artistic craftsmanship is more important in architectural art than in pictorial art.
- (E) Paintings lacked the intellectual element before the invention of linear perspective and anatomy.

20. The author mentions "linear perspective and anatomy" in the last sentence in order to do which of the following?

- (A) Expand his argument to include painting as well as architecture
- (B) Indicate his disagreement with Croce's theory of the origins of art
- (C) Support his point that rational order of some kind has often seemed to discipline artistic inspiration
- (D) Explain the rational elements in Gothic painting that corresponded to craftsmanship in Gothic architecture
- (E) Show the increasing sophistication of artists after the Gothic period

GO ON TO THE NEXT PAGE.

(The passage below is drawn from an article published in 1962.)

Computer programmers often remark that computing machines, with a perfect lack of discrimination, will do any foolish thing they are told to do. The reason for this lies, of course, in the narrow fixation of the computing machine's "intelligence" on the details of its own perceptions—its inability to be guided by any large context. In a psychological description of the computer intelligence, three related adjectives come to mind: single-minded, literal-minded, and simpleminded. Recognizing this, we should at the same time recognize that this single-mindedness, literal-mindedness, and simplemindedness also characterizes theoretical mathematics, though to a lesser extent.

Since science tries to deal with reality, even the most precise sciences normally work with more or less imperfectly understood approximations toward which scientists must maintain an appropriate skepticism. Thus, for instance, it may come as a shock to mathematicians to learn that the Schrödinger equation for the hydrogen atom is not a literally correct description of this atom, but only an approximation to a somewhat more correct equation taking account of spin, magnetic dipole, and relativistic effects; and that this corrected equation is itself only an imperfect approximation to an infinite set of quantum field-theoretical equations. Physicists, looking at the original Schrödinger equation, learn to sense in it the presence of many invisible terms in addition to the differential terms visible, and this sense inspires an entirely appropriate disregard for the purely technical features of the equation. This very healthy skepticism is foreign to the mathematical approach.

Mathematics must deal with well-defined situations. Thus, mathematicians depend on an intellectual effort outside of mathematics for the crucial specification of the approximation that mathematics is to take literally. Give mathematicians a situation that is the least bit ill-defined, and they will make it well-defined, perhaps appropriately, but perhaps inappropriately. In some cases, the mathematicians' literal-mindedness may have unfortunate consequences. The mathematicians turn the scientists' theoretical assumptions, that is, their convenient points of analytical emphasis, into axioms, and then take these axioms literally. This brings the danger that they may also persuade the scientists to take these axioms literally. The question, central to the scientific investigation but intensely disturbing in the mathematical context—what happens if the axioms are relaxed?—is thereby ignored.

The physicist rightly dreads precise argument, since an argument that is convincing only if it is precise loses all its force if the assumptions on which it is based are slightly changed, whereas an argument that is convincing though imprecise may well be stable under small perturbations of its underlying assumptions.

21. The author discusses computing machines in the first paragraph primarily in order to do which of the following?
 - (A) Indicate the dangers inherent in relying to a great extent on machines
 - (B) Illustrate his views about the approach of mathematicians to problem solving
 - (C) Compare the work of mathematicians with that of computer programmers
 - (D) Provide one definition of intelligence
 - (E) Emphasize the importance of computers in modern technological society
22. According to the passage, scientists are skeptical toward their equations because scientists
 - (A) work to explain real, rather than theoretical or simplified, situations
 - (B) know that well-defined problems are often the most difficult to solve
 - (C) are unable to express their data in terms of multiple variables
 - (D) are unwilling to relax the axioms they have developed
 - (E) are unable to accept mathematical explanations of natural phenomena
23. It can be inferred from the passage that scientists make which of the following assumptions about scientific arguments?
 - (A) The literal truth of the arguments can be made clear only in a mathematical context.
 - (B) The arguments necessarily ignore the central question of scientific investigation.
 - (C) The arguments probably will be convincing only to other scientists.
 - (D) The conclusions of the arguments do not necessarily follow from their premises.
 - (E) The premises on which the arguments are based may change.

GO ON TO THE NEXT PAGE.

24. According to the passage, mathematicians present a danger to scientists for which of the following reasons?
- (A) Mathematicians may provide theories that are incompatible with those already developed by scientists.
 - (B) Mathematicians may define situations in a way that is incomprehensible to scientists.
 - (C) Mathematicians may convince scientists that theoretical assumptions are facts.
 - (D) Scientists may come to believe that axiomatic statements are untrue.
 - (E) Scientists may begin to provide arguments that are convincing but imprecise.
25. The author suggests that the approach of physicists to solving scientific problems is which of the following?
- (A) Practical for scientific purposes
 - (B) Detrimental to scientific progress
 - (C) Unimportant in most situations
 - (D) Expedient, but of little long-term value
 - (E) Effective, but rarely recognized as such
26. The author suggests that a mathematician asked to solve a problem in an ill-defined situation would first attempt to do which of the following?
- (A) Identify an analogous situation
 - (B) Simplify and define the situation
 - (C) Vary the underlying assumptions of a description of the situation
 - (D) Determine what use would be made of the solution provided
 - (E) Evaluate the theoretical assumptions that might explain the situation
27. The author implies that scientists develop a healthy skepticism because they are aware that
- (A) mathematicians are better able to solve problems than are scientists
 - (B) changes in axiomatic propositions will inevitably undermine scientific arguments
 - (C) well-defined situations are necessary for the design of reliable experiments
 - (D) mathematical solutions can rarely be applied to real problems
 - (E) some factors in most situations must remain unknown

GO ON TO THE NEXT PAGE.

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. EVACUATE: (A) boil off (B) fill up
(C) melt down (D) neutralize (E) spin
29. OUTLANDISH: (A) prolific
(B) unchanging (C) conventional
(D) noticeable (E) transparent
30. INHIBITOR: (A) catalyst (B) acid
(C) solution (D) reaction (E) compound
31. CONSTRICT: (A) expiate (B) deviate
(C) dilate (D) accelerate (E) vindicate
32. REPORTORIAL: (A) unlikely
(B) imaginative (C) indecisive
(D) characteristic (E) challenging

33. INDIGENCE: (A) wealth (B) vanity
(C) boldness (D) endurance (E) vivacity
34. INVEIGLE:
(A) display openly (B) request directly
(C) initiate willingly (D) advocate strongly
(E) contribute lavishly
35. TRACTABLE: (A) distraught (B) irritating
(C) ruthless (D) headstrong (E) lazy
36. INCHOATE:
(A) sensuously pleasant
(B) prominently visible
(C) intrinsically reasonable
(D) fully formed
(E) widely known
37. PERfidY: (A) thoroughness (B) generosity
(C) gratitude (D) tact (E) loyalty
38. APPROPRIATE: (A) create a void
(B) rectify an error (C) sanction
(D) surrender (E) lend

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. Animals that have tasted unpalatable plants tend to —— them afterward on the basis of their most conspicuous features, such as their flowers.

(A) recognize (B) hoard (C) trample
(D) retrieve (E) approach

2. As for the alleged value of expert opinion, one need only —— government records to see —— evidence of the failure of such opinions in many fields.

(A) inspect..questionable
(B) retain..circumstantial
(C) distribute..possible
(D) consult..strong
(E) evaluate..problematic

3. In scientific inquiry it becomes a matter of duty to expose a —— hypothesis to every possible kind of ——.

(A) tentative..examination
(B) debatable..approximation
(C) well-established..rationalization
(D) logical..elaboration
(E) suspect..correlation

4. Charlotte Salomon's biography is a reminder that the currents of private life, however diverted, dislodged, or twisted by —— public events, retain their hold on the —— recording them.

(A) transitory..culture
(B) dramatic..majority
(C) overpowering..individual
(D) conventional..audience
(E) relentless..institution

5. Philosophical problems arise when people ask questions that, though very ——, have certain characteristics in common.

(A) relevant
(B) elementary
(C) abstract
(D) diverse
(E) controversial

6. Although Johnson —— great enthusiasm for his employees' project, in reality his interest in the project was so —— as to be almost nonexistent.

(A) generated..redundant
(B) displayed..preemptive
(C) expected..indiscriminate
(D) feigned..perfunctory
(E) demanded..dispassionate

7. Not all the indicators necessary to convey the effect of depth in a picture work simultaneously; the picture's illusion of —— three-dimensional appearance must therefore result from the viewer's integration of various indicators perceived ——.

(A) imitative..coincidentally
(B) uniform..successively
(C) temporary..comprehensively
(D) expressive..sympathetically
(E) schematic..passively

GO ON TO THE NEXT PAGE.

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. GADGETS:TOOLS :: (A) blankets:linen
(B) leaflets:posters (C) trinkets:jewelry
(D) sockets:bulbs (E) ringlets:hair
9. LISTEN:RECORDING :: (A) carve:statue
(B) reproduce:plan (C) review:book
(D) frame:painting (E) view:photograph
10. CENSORSHIP:INFORMATION ::
(A) frugality:constraint
(B) sampling:measurement
(C) sanitation:disease
(D) cultivation:erosion
(E) philanthropy:generosity
11. DELUGE:DROPLET ::
(A) beach:wave
(B) desert:oasis
(C) blizzard:icicle
(D) landslide:pebble
(E) cloudburst:puddle
12. SPEAK:RETICENT ::
(A) spend:parsimonious
(B) excel:audacious
(C) commend:irate
(D) work:servile
(E) invent:diffident

13. PATRIOTIC:CHAUVINISTIC ::
(A) impudent:intolerant
(B) furtive:surreptitious
(C) incisive:trenchant
(D) receptive:gullible
(E) verbose:prolix
14. BOUQUET:FLOWERS :: (A) forest:trees
(B) husk:corn (C) mist:rain
(D) woodpile:logs (E) drift:snow
15. ENDEMIC:REGION ::
(A) homogeneous:population
(B) inborn:individual
(C) hybrid:species
(D) sporadic:time
(E) aberrant:norm
16. PECCADILLO:SIN ::
(A) provocation:instigation
(B) anxiety:fear
(C) perjury:corruption
(D) penury:poverty
(E) admonishment:castigation

GO ON TO THE NEXT PAGE.

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.

In eighteenth-century France and England, reformers rallied around egalitarian ideals, but few reformers advocated higher education for women. Although the public decried women's lack of education, it did not encourage learning for its own sake for women. In spite of the general prejudice against learned women, there was one place where women could exhibit their erudition: the literary salon. Many writers have defined the woman's role in the salon as that of an intelligent hostess, but the salon had more than a social function for women. It was an informal university, too, where women exchanged ideas with educated persons, read their own works and heard those of others, and received and gave criticism.

In the 1750's, when salons were firmly established in France, some English women, who called themselves "Bluestockings," followed the example of the *salonnieres* (French salon hostesses) and formed their own salons. Most Bluestockings did not wish to mirror the *salonnieres*; they simply desired to adapt a proven formula to their own purpose—the elevation of women's status through moral and intellectual training. Differences in social orientation and background can account perhaps for differences in the nature of French and English salons. The French salon incorporated aristocratic attitudes that exalted courtly pleasure and emphasized artistic accomplishments. The English Bluestockings, originating from a more modest background, emphasized learning and work over pleasure. Accustomed to the regimented life of court circles, *salonnieres* tended toward formality in their salons. The English women, though somewhat puritanical, were more casual in their approach.

At first, the Bluestockings did imitate the *salonnieres* by including men in their circles. However, as they gained cohesion, the Bluestockings came to regard themselves as a women's group and to possess a sense of female solidarity lacking in the *salonnieres*, who remained isolated from one another by the primacy each held in her own salon. In an atmosphere of mutual support, the Bluestockings went beyond the salon experience. They traveled, studied, worked, wrote for publication, and by their activities challenged the stereotype of the passive woman. Although the *salonnieres* were aware of sexual inequality, the narrow boundaries of their world kept their intellectual pursuits within conventional limits. Many

salonnieres, in fact, camouflaged their nontraditional activities behind the role of hostess and deferred to men in public.

Though the Bluestockings were trailblazers when compared with the *salonnieres*, they were not feminists. They were too traditional, too hemmed in by their generation to demand social and political rights. Nonetheless, in their desire for education, their willingness to go beyond the confines of the salon in pursuing their interests, and their championing of unity among women, the Bluestockings began the process of questioning women's role in society.

17. Which of the following best states the central idea of the passage?
- (A) The establishment of literary salons was a response to reformers' demands for social rights for women.
 - (B) Literary salons were originally intended to be a meeting ground for intellectuals of both sexes, but eventually became social gatherings with little educational value.
 - (C) In England, as in France, the general prejudice against higher education for women limited women's function in literary salons to a primarily social one.
 - (D) The literary salons provided a sounding board for French and English women who called for access to all the educational institutions in their societies on an equal basis with men.
 - (E) For women, who did not have access to higher education as men did, literary salons provided an alternate route to learning and a challenge to some of society's basic assumptions about women.

GO ON TO THE NEXT PAGE.

18. According to the passage, a significant distinction between the *salonnieres* and Bluestockings was in the way each group regarded which of the following?
- (A) The value of acquiring knowledge
 - (B) The role of pleasure in the activities of the literary salon
 - (C) The desirability of a complete break with societal traditions
 - (D) The inclusion of women of different backgrounds in the salons
 - (E) The attainment of full social and political equality with men
19. The author refers to differences in social background between *salonnieres* and Bluestockings in order to do which of the following?
- (A) Criticize the view that their choices of activities were significantly influenced by male salon members
 - (B) Discuss the reasons why literary salons in France were established before those in England
 - (C) Question the importance of the Bluestockings in shaping public attitudes toward educated women
 - (D) Refute the argument that the French salons had little influence over the direction the English salons took
 - (E) Explain the differences in atmosphere and style in their salons
20. Which of the following statements is most compatible with the principles of the *salonnieres* as described in the passage?
- (A) Women should aspire to be not only educated but independent as well.
 - (B) The duty of the educated woman is to provide an active political model for less educated women.
 - (C) Devotion to pleasure and art is justified in itself.
 - (D) Substance, rather than form, is the most important consideration in holding a literary salon.
 - (E) Men should be excluded from groups of women's rights supporters.
21. The passage suggests that the Bluestockings might have had a more significant impact on society if it had not been for which of the following?
- (A) Competitiveness among their salons
 - (B) Their emphasis on individualism
 - (C) The limited scope of their activities
 - (D) Their acceptance of the French salon as a model for their own salons
 - (E) Their unwillingness to defy aggressively the conventions of their age
22. Which of the following could best be considered a twentieth-century counterpart of an eighteenth-century literary salon as it is described in the passage?
- (A) A social sorority
 - (B) A community center
 - (C) A lecture course on art
 - (D) A humanities study group
 - (E) An association of moral reformers
23. To an assertion that Bluestockings were feminists, the author would most probably respond with which of the following?
- (A) Admitted uncertainty
 - (B) Qualified disagreement
 - (C) Unquestioning approval
 - (D) Complete indifference
 - (E) Strong disparagement
24. Which of the following titles best describes the content of the passage?
- (A) Eighteenth-Century Egalitarianism
 - (B) Feminists of the Eighteenth Century
 - (C) Eighteenth-Century Precursors of Feminism
 - (D) Intellectual Life in the Eighteenth Century
 - (E) Female Education Reform in the Eighteenth Century

GO ON TO THE NEXT PAGE.

When the same parameters and quantitative theory are used to analyze both termite colonies and troops of rhesus macaques, we will have a unified science of sociobiology. Can this ever really happen? As my own studies have advanced, I have been increasingly impressed with the functional similarities between insect and vertebrate societies and less so with the structural differences that seem, at first glance, to constitute such an immense gulf between them. Consider for a moment termites and macaques. Both form cooperative groups that occupy territories. In both kinds of society there is a well-marked division of labor. Members of both groups communicate to each other hunger, alarm, hostility, caste status or rank, and reproductive status. From the specialist's point of view, this comparison may at first seem facile—or worse. But it is out of such deliberate oversimplification that the beginnings of a general theory are made.

25. Which of the following best summarizes the author's main point?
- (A) Oversimplified comparisons of animal societies could diminish the likelihood of developing a unified science of sociology.
 - (B) Understanding the ways in which animals as different as termites and rhesus macaques resemble each other requires training in both biology and sociology.
 - (C) Most animals organize themselves into societies that exhibit patterns of group behavior similar to those of human societies.
 - (D) Animals as different as termites and rhesus macaques follow certain similar and predictable patterns of behavior.
 - (E) A study of the similarities between insect and vertebrate societies could provide the basis for a unified science of sociobiology.

26. The author's attitude toward the possibility of a unified theory in sociobiology is best described as which of the following?
- (A) Guarded optimism
 - (B) Unqualified enthusiasm
 - (C) Objective indifference
 - (D) Resignation
 - (E) Dissatisfaction
27. In discussing insect and vertebrate societies, the author suggests which of the following?
- (A) A distinguishing characteristic of most insect and vertebrate societies is a well-marked division of labor.
 - (B) The caste structure of insect societies is similar to that of vertebrate societies.
 - (C) Most insect and vertebrate societies form cooperative groups in order to occupy territory.
 - (D) The means of communication among members of insect societies is similar to that among members of vertebrate societies.
 - (E) There are significant structural differences between insect and vertebrate societies.

GO ON TO THE NEXT PAGE.

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. BEGIN: (A) participate (B) determine
(C) persist (D) conclude (E) prevent
29. SHUN:
(A) seek actively
(B) perform occasionally
(C) understand intuitively
(D) answer correctly
(E) influence easily
30. EQUITY: (A) uncleanness (B) unfairness
(C) unskillfulness (D) unreadiness
(E) unfaithfulness
31. PROPAGATION: (A) regulation
(B) emulation (C) extirpation
(D) infiltration (E) revelation
32. PRESUMPTUOUS: (A) delicate
(B) humble (C) certain
(D) constructive (E) contemptible
33. VACILLATION: (A) perpetual activity
(B) rapid growth (C) motionless balance
(D) accurate focus (E) minimal response
34. PENCHANT: (A) stigma (B) dishonesty
(C) disbelief (D) grievance (E) dislike
35. SOMATIC: (A) unitary
(B) disjointed (C) nonphysical
(D) by hand (E) with effort
36. CONFOUND: (A) specify (B) signify.
(C) scrutinize (D) discriminate between
(E) coincide with
37. CHARY: (A) brisk (B) bold
(C) untidy (D) ungenerous (E) unfriendly
38. FLAG: (A) sustain (B) strive (C) favor
(D) cut (E) wax

FOR GENERAL TEST 6 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 2			Section 3			Section 4			Section 5			Section 6		
Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +
1	B	82	1	A	89	1	A	96	1	A	91	1	B	91	1	E	91
2	D	59	2	D	75	2	C	91	2	B	94	2	E	83	2	E	38
3	B	54	3	A	67	3	A	86	3	A	90	3	A	94	3	B	75
4	E	56	4	C	60	4	B	86	4	B	86	4	C	86	4	D	93
5	E	52	5	D	69	5	C	86	5	D	87	5	B	81	5	A	79
6	B	32	6	D	50	6	D	78	6	C	84	6	E	66	6	B	59
7	C	29	7	B	52	7	B	83	7	D	83	7	E	64	7	C	57
8	E	90	8	C	83	8	A	82	8	C	67	8	D	85	8	D	93
9	D	84	9	E	89	9	B	71	9	B	70	9	C	77	9	E	75
10	A	40	10	C	48	10	A	68	10	A	64	10	A	73	10	B	47
11	E	80	11	D	72	11	B	55	11	C	65	11	D	87	11	E	67
12	O	53	12	A	50	12	C	49	12	D	38	12	A	45	12	D	70
13	A	47	13	D	31	13	D	41	13	A	60	13	A	67	13	A	42
14	D	35	14	D	54	14	D	25	14	A	43	14	B	54	14	B	65
15	C	27	15	B	31	15	A	42	15	D	17	15	D	52	15	C	55
16	A	16	16	E	24	16	C	95	16	D	86	16	D	41	16	E	71
17	B	55	17	E	83	17	A	93	17	A	85	17	E	37	17	O	28
18	D	35	18	B	57	18	B	76	18	B	73	18	C	37	18	E	33
19	A	63	19	E	81	19	E	70	19	C	77	19	E	32	19	D	37
20	C	67	20	C	59	20	D	71	20	B	73	20	A	26	20	E	13
21	B	54	21	E	72	21	D	70	21	C	85	21	C	50	21	C	36
22	A	58	22	D	40	22	E	61	22	E	71	22	B	46	22	B	36
23	E	59	23	B	66	23	E	47	23	D	71	23	E	37	23	C	50
24	C	62	24	C	50	24	C	36	24	C	55	24	B	49	24	A	44
25	A	55	25	E	62	25	D	34	25	C	35	25	A	31	25	A	50
26	B	65	26	A	70	26	A	60	26	B	28						
27	E	33	27	E	16	27	B	40	27	E	61						
28	B	91	28	D	94	28	E	60	28	E	43						
29	C	84	29	A	87	29	B	45	29	A	31						
30	A	84	30	B	83	30	C	27	30	A	41						
31	C	72	31	C	51												
32	B	49	32	B	53												
33	A	51	33	C	45												
34	B	31	34	E	45												
35	D	40	35	C	42												
36	D	29	36	D	34												
37	E	24	37	B	32												
38	D	23	38	E	10												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 7

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. Her ____ should not be confused with miserliness; as long as I have known her, she has always been willing to assist those who are in need.
(A) intemperance (B) intolerance
(C) apprehension (D) diffidence
(E) frugality
2. Natural selection tends to eliminate genes that cause inherited diseases, acting most strongly against the most severe diseases; consequently, hereditary diseases that are ____ would be expected to be very ____, but, surprisingly, they are not.
(A) lethal..rare
(B) untreated..dangerous
(C) unusual..refractory
(D) new..perplexing
(E) widespread..acute
3. Unfortunately, his damaging attacks on the ramifications of the economic policy have been ____ by his wholehearted acceptance of that policy's underlying assumptions.
(A) supplemented (B) undermined
(C) wasted (D) diverted (E) redeemed
4. During the opera's most famous aria the tempo chosen by the orchestra's conductor seemed ____, without necessary relation to what had gone before.
(A) tedious (B) melodious (C) capricious
(D) compelling (E) cautious
5. In the machinelike world of classical physics, the human intellect appears ____, since the mechanical nature of classical physics does not ____ creative reasoning, the very ability that had made the formulation of classical principles possible.
(A) anomalous..allow for
(B) abstract..speak to
(C) anachronistic..deny
(D) enduring..value
(E) contradictory..exclude
6. During the 1960's assessments of the family shifted remarkably, from general endorsement of it as a worthwhile, stable institution to widespread ____ it as an oppressive and bankrupt one whose ____ was both imminent and welcome.
(A) flight from..restitution
(B) fascination with..corruption
(C) rejection of..vogue
(D) censure of..dissolution
(E) relinquishment of..ascent
7. Documenting science's ____ philosophy would be ____, since it is almost axiomatic that many philosophers use scientific concepts as the foundations for their speculations.
(A) distrust of..elementary
(B) influence on..superfluous
(C) reliance on..inappropriate
(D) dependence on..difficult
(E) differences from..impossible

GO ON TO THE NEXT PAGE.

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. SCALPEL:SURGEON ::
(A) laser:agronomist
(B) magnet:ecologist
(C) syringe:geologist
(D) telescope:astronomer
(E) microscope:geometrician
9. APPLE:FRUIT :: (A) egg:chicken
(B) rung:chair (C) wool:fabric
(D) fuse:dynamite (E) wick:candle
10. ENVELOPE:LETTER :: (A) scarf:hat
(B) box:bag (C) crate:produce
(D) neck:head (E) blood:heart
11. PANEGYRIC:EULOGIZE ::
(A) ballad:stigmatize (B) ode:criticize
(C) lampoon:satirize (D) tirade:entertain
(E) treatise:dispute
12. OVERDOSE:PRESCRIPTION ::
(A) deprivation:materialism
(B) indiscretion:convention
(C) affliction:sympathy
(D) adventure:expedition
(E) drug:medicine
13. FRESCO:WALL :: (A) fountain:courtyard
(B) parquetry:floor (C) thatch:roof
(D) statuary:passage (E) gargoyle:gutter
14. HAMMER:ANVIL :: (A) knocker:door
(B) stick:gong (C) hand:drum
(D) pestle:mortar (E) gavel:lectern
15. RELEVANT:CRUCIAL ::
(A) marginal:unique
(B) perceptible:obvious
(C) apparent:real
(D) peripheral:central
(E) possible:desirable
16. PERFUNCTORILY:INSPIRATION ::
(A) insolently:veneration
(B) ardently:passion
(C) phlegmatically:composure
(D) surreptitiously:obsession
(E) haltingly:reluctance

GO ON TO THE NEXT PAGE.

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.

Great comic art is never otherwordly, it does not seek to mystify us, and it does not deny ambiguity by branding as evil whatever differs from good. Great comic artists assume that truth may bear all lights, and thus they seek to accentuate contradictions in social action, not gloss over or transcend them by appeals to extrasocial symbols of divine ends, cosmic purpose, or laws of nature. The moment of transcendence in great comic art is a social moment, born out of the conviction that we are human, even though we try to be gods. The comic community to which artists address themselves is a community of reasoning, loving, joyful, compassionate beings, who are willing to assume the human risks of acting rationally. Without invoking gods or demons, great comic art arcuses courage in reason, courage which grows out of trust in what human beings can do as humans.

17. The passage suggests that great comic art can be characterized as optimistic about the ability of humans to
 - (A) rid themselves of pride
 - (B) transcend the human condition
 - (C) differentiate clearly between good and evil
 - (D) avoid social conflicts
 - (E) act rationally
18. It can be inferred from the passage that the author admires great comic artists primarily for their
 - (A) ability to understand the frequently subtle differences between good and evil
 - (B) ability to reconcile the contradictions in human behavior
 - (C) ability to distinguish between rational and irrational behavior
 - (D) insistence on confronting the truth about the human condition
 - (E) insistence on condemning human faults and weaknesses

19. Which of the following is the most accurate description of the organization of the passage?
 - (A) A sequence of observations leading to a prediction
 - (B) A list of inferences drawn from facts stated at the beginning of the passage
 - (C) A series of assertions related to one general subject
 - (D) A statement of the major idea, followed by specific examples
 - (E) A succession of ideas moving from specific to general

GO ON TO THE NEXT PAGE.

It has long been known that the rate of oxidative metabolism (the process that uses oxygen to convert food into energy) in any animal has a profound effect on its living patterns. The high metabolic rate of small animals, for example, gives them sustained power and activity per unit of weight, but at the cost of requiring constant consumption of food and water. Very large animals, with their relatively low metabolic rates, can survive well on a sporadic food supply, but can generate little metabolic energy per gram of body weight. If only oxidative metabolic rate is considered, therefore, one might assume that smaller, more active, animals could prey on larger ones, at least if they attacked in groups. Perhaps they could if it were not for anaerobic glycolysis, the great equalizer.

Anaerobic glycolysis is a process in which energy is produced, without oxygen, through the breakdown of muscle glycogen into lactic acid and adenosine triphosphate (ATP), the energy provider. The amount of energy that can be produced anaerobically is a function of the amount of glycogen present—in all vertebrates about 0.5 percent of their muscles' wet weight. Thus the anaerobic energy reserves of a vertebrate are proportional to the size of the animal. If, for example, some predators had attacked a 100-ton dinosaur, normally torpid, the dinosaur would have been able to generate almost instantaneously, via anaerobic glycolysis, the energy of 3,000 humans at maximum oxidative metabolic energy production. This explains how many large species have managed to compete with their more active neighbors: the compensation for a low oxidative metabolic rate is glycolysis.

There are limitations, however, to this compensation. The glycogen reserves of any animal are good, at most, for only about two minutes at maximum effort, after which only the normal oxidative metabolic source of energy remains. With the conclusion of a burst of activity, the lactic acid level is high in the body fluids, leaving the large animal vulnerable to attack until the acid is reconverted, via oxidative metabolism, by the liver into glucose, which is then sent (in part) back to the muscles for glycogen resynthesis. During this process the enormous energy debt that the animal has run up through anaerobic glycolysis must be repaid, a debt that is proportionally much greater for the larger vertebrates than for the smaller ones. Whereas the tiny shrew can replace in minutes the glycogen used for maximum effort, for example, the gigantic dinosaur would have required more than three weeks. It might seem that this interminably long recovery time in a large vertebrate would prove a grave disadvantage for survival. Fortunately, muscle glycogen is used only when needed and even then only in whatever quantity is necessary. Only in times of panic or during mortal combat would the entire reserves be consumed.

20. The primary purpose of the passage is to
 - (A) refute a misconception about anaerobic glycolysis
 - (B) introduce a new hypothesis about anaerobic glycolysis
 - (C) describe the limitations of anaerobic glycolysis
 - (D) analyze the chemistry of anaerobic glycolysis and its similarity to oxidative metabolism
 - (E) explain anaerobic glycolysis and its effects on animal survival
21. According to the author, glycogen is crucial to the process of anaerobic glycolysis because glycogen
 - (A) increases the organism's need for ATP
 - (B) reduces the amount of ATP in the tissues
 - (C) is an inhibitor of the oxidative metabolic production of ATP
 - (D) ensures that the synthesis of ATP will occur speedily
 - (E) is the material from which ATP is derived
22. According to the author, a major limitation of anaerobic glycolysis is that it can
 - (A) produce in large animals more lactic acid than the liver can safely reconvert
 - (B) necessitate a dangerously long recovery period in large animals
 - (C) produce energy more slowly than it can be used by large animals
 - (D) consume all of the available glycogen regardless of need
 - (E) reduce significantly the rate at which energy is produced by oxidative metabolism

GO ON TO THE NEXT PAGE.

23. The passage suggests that the total anaerobic energy reserves of a vertebrate are proportional to the vertebrate's size because
- larger vertebrates conserve more energy than smaller vertebrates
 - larger vertebrates use less oxygen per unit weight than smaller vertebrates
 - the ability of a vertebrate to consume food is a function of its size
 - the amount of muscle tissue in a vertebrate is directly related to its size
 - the size of a vertebrate is proportional to the quantity of energy it can utilize
24. The author suggests that, on the basis of energy production, a 100-ton dinosaur would have been markedly vulnerable to which of the following?
- Repeated attacks by a single smaller, more active adversary
 - Sustained attack by numerous smaller, more active adversaries
 - An attack by an individual adversary of similar size
- II only
 - I and II only
 - I and III only
 - II and III only
 - I, II, and III
25. It can be inferred from the passage that the time required to replenish muscle glycogen following anaerobic glycolysis is determined by which of the following factors?
- Rate of oxidative metabolism
 - Quantity of lactic acid in the body fluids
 - Percentage of glucose that is returned to the muscles
- I only
 - III only
 - I and II only
 - I and III only
 - I, II, and III
26. The author is most probably addressing which of the following audiences?
- College students in an introductory course on animal physiology
 - Historians of science investigating the discovery of anaerobic glycolysis
 - Graduate students with specialized training in comparative anatomy
 - Zoologists interested in prehistoric animals
 - Biochemists doing research on oxidative metabolism
27. Which of the following best states the central idea of the passage?
- The disadvantage of a low oxidative metabolic rate in large animals can be offset by their ability to convert substantial amounts of glycogen into energy.
 - The most significant problem facing animals that have used anaerobic glycolysis for energy is the resynthesis of its by-product, glucose, into glycogen.
 - The benefits to animals of anaerobic glycolysis are offset by the profound costs that must be paid.
 - The major factor ensuring that a large animal will triumph over a smaller animal is the large animal's ability to produce energy via anaerobic glycolysis.
 - The great differences that exist in metabolic rates between species of small animals and species of large animals can have important effects on the patterns of their activities.

GO ON TO THE NEXT PAGE.

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. FLUSTERED: (A) mute (B) calm
(C) heavy (D) ingrained (E) courageous
29. ENDORSE: (A) provoke criticism
(B) receive payment (C) submit unwillingly
(D) oppose publicly (E) perform quickly
30. EXPIRE: (A) evolve (B) stabilize
(C) come to life (D) grow to fruition
(E) bring to light
31. METAMORPHOSIS:
(A) relief from strain
(B) continuation without change
(C) cyclical motion
(D) dogmatic persistence
(E) varied activity
32. MOROSE: (A) overawed (B) agitated
(C) cherubic (D) decisive (E) cheerful
33. INDELIBILITY: (A) availability
(B) comprehensibility (C) decidability
(D) erasability (E) retractability
34. SPIRITUAL: (A) eclectic (B) figurative
(C) ephemeral (D) immoral (E) corporeal
35. DISPATCH: (A) serenity (B) leisureliness
(C) heedlessness (D) irregularity
(E) aversion
36. FERMENT: (A) solidity (B) purity
(C) lucidity (D) transparency
(E) tranquillity
37. FACETIOUS: (A) lugubrious
(B) contentious (C) ingenuous
(D) prodigious (E) audacious
38. CRAVEN: (A) indifferent
(B) presumptuous (C) valorous
(D) scrupulous (E) petulant

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. The spellings of many Old English words have been _____ in the living language, although their pronunciations have changed.
(A) preserved (B) shortened
(C) preempted (D) revised (E) improved
2. The sheer diversity of tropical plants represents a seemingly _____ source of raw materials, of which only a few have been utilized.
(A) exploited (B) quantifiable
(C) controversial (D) inexhaustible
(E) remarkable
3. For centuries animals have been used as _____ for people in experiments to assess the effects of therapeutic and other agents that might later be used in humans.
(A) benefactors (B) companions
(C) examples (D) precedents
(E) surrogates
4. Social tensions among adult factions can be _____ by politics, but adolescents and children have no such _____ for resolving their conflict with the exclusive world of adults.
(A) intensified..attitude
(B) complicated..relief
(C) frustrated..justification
(D) adjusted..mechanism
(E) revealed..opportunity
5. The state is a network of exchanged benefits and beliefs, _____ between rulers and citizens based on those laws and procedures that are _____ to the maintenance of community.
(A) a compromise..inimical
(B) an interdependence..subsidiary
(C) a counterpoint..incidental
(D) an equivalence..prerequisite
(E) a reciprocity..conducive
6. Far from viewing Jefferson as a skeptical but enlightened intellectual, historians of the 1960's portrayed him as _____ thinker, eager to fill the young with his political orthodoxy while censoring ideas he did not like.
(A) an adventurous (B) a doctrinaire
(C) an eclectic (D) a judicious
(E) a cynical
7. To have true disciples, a thinker must not be too _____: any effective intellectual leader depends on the ability of other people to _____ thought processes that did not originate with them.
(A) popular..dismiss
(B) methodical..interpret
(C) idiosyncratic..reenact
(D) self-confident..revitalize
(E) pragmatic..discourage

GO ON TO THE NEXT PAGE.

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. ADULT:CHILD :: (A) horse:mare
(B) cat:kitten (C) swine:sow
(D) human:animal (E) cow:herd

9. CLOT:DISSOLVED ::

- (A) enthusiast:influenced
(B) cartoon:distorted
(C) crowd:dispersed
(D) chain:disengaged
(E) disciple:inspired

10. GLOSSARY:TEXT ::

- (A) bibliography:source
(B) abstract:dissertation
(C) legend:map
(D) index:catalog
(E) abbreviation:footnote

11. FERVOR:ZEALOT ::

- (A) antipathy:philanthropist
(B) improvidence:spendthrift
(C) concision:politician
(D) determination:ecologist
(E) nonchalance:acrobat

12. SHARD:POTTERY :: (A) flint:stone
(B) flange:wheel (C) cinder:coal
(D) fragment:bone (E) tare:grain

13. FERTILIZE:GROW :: (A) immunize:resist
(B) nourish:enrich (C) heat:burn
(D) graft:multiply (E) prune:dwarf

14. ATTENTIVE:OFFICIOUS ::

- (A) doubtful:ambiguous
(B) absorbed:engrossed
(C) refined:snobbish
(D) magisterial:authoritative
(E) impromptu:spontaneous

15. EXORBITANT:MODERATION ::

- (A) dispassionate:equanimity
(B) macabre:interest
(C) perfidious:loyalty
(D) brilliant:gullibility
(E) lavish:extravagance

16. BLANDISHMENT:COAX ::

- (A) medal:honor (B) budget:save
(C) diary:reminisce (D) concert:play
(E) plea:threaten

GO ON TO THE NEXT PAGE.

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.

The dark regions in the starry night sky are not pockets in the universe that are devoid of stars as had long been thought. Rather, they are dark because of interstellar dust that hides the stars behind it. Although its visual effect is so pronounced, dust is only a minor constituent of the material, extremely low in density, that lies between the stars. Dust accounts for about one percent of the total mass of interstellar matter. The rest is hydrogen and helium gas, with small amounts of other elements. The interstellar material, rather like terrestrial clouds, comes in all shapes and sizes. The average density of interstellar material in the vicinity of our Sun is 1,000 to 10,000 times less than the best terrestrial laboratory vacuum. It is only because of the enormous interstellar distances that so little material per unit of volume becomes so significant. Optical astronomy is most directly affected, for although interstellar gas is perfectly transparent, the dust is not.

17. According to the passage, which of the following is a direct perceptual consequence of interstellar dust?

- (A) Some stars are rendered invisible to observers on Earth.
- (B) Many visible stars are made to seem brighter than they really are.
- (C) The presence of hydrogen and helium gas is revealed.
- (D) The night sky appears dusty at all times to observers on Earth.
- (E) The dust is conspicuously visible against a background of bright stars.

18. It can be inferred from the passage that the density of interstellar material is

- (A) higher where distances between the stars are shorter
- (B) equal to that of interstellar dust
- (C) unusually low in the vicinity of our Sun
- (D) independent of the incidence of gaseous components
- (E) not homogeneous throughout interstellar space

19. It can be inferred from the passage that it is because space is so vast that

- (A) little of the interstellar material in it seems substantial
- (B) normal units of volume seem futile for measurements of density
- (C) stars can be far enough from Earth to be obscured even by very sparsely distributed matter
- (D) interstellar gases can, for all practical purposes, be regarded as transparent
- (E) optical astronomy would be of little use even if no interstellar dust existed

GO ON TO THE NEXT PAGE.

In his 1976 study of slavery in the United States, Herbert Gutman, like Fogel, Engerman, and Genovese, has rightly stressed the slaves' achievements. But unlike these historians, Gutman gives plantation owners little credit for these achievements. Rather, Gutman argues that one must look to the Black family and the slaves' extended kinship system to understand how crucial achievements, such as the maintenance of a cultural heritage and the development of a communal consciousness, were possible. His findings compel attention.

Gutman recreates the family and extended kinship structure mainly through an ingenious use of what any historian should draw upon, quantifiable data, derived in this case mostly from plantation birth registers. He also uses accounts of ex-slaves to probe the human reality behind his statistics. These sources indicate that the two-parent household predominated in slave quarters just as it did among freed slaves after emancipation. Although Gutman admits that forced separation by sale was frequent, he shows that the slaves' preference, revealed most clearly on plantations where sale was infrequent, was very much for stable monogamy. In less conclusive fashion Fogel, Engerman, and Genovese had already indicated the predominance of two-parent households; however, only Gutman emphasizes the preference for stable monogamy and points out what stable monogamy meant for the slaves' cultural heritage. Gutman argues convincingly that the stability of the Black family encouraged the transmission of—and so was crucial in sustaining—the Black heritage of folklore, music, and religious expression from one generation to another, a heritage that slaves were continually fashioning out of their African and American experiences.

Gutman's examination of other facets of kinship also produces important findings. Gutman discovers that cousins rarely married, an exogamous tendency that contrasted sharply with the endogamy practiced by the plantation owners. This preference for exogamy, Gutman suggests, may have derived from West African rules governing marriage, which, though they differed from one tribal group to another, all involved some kind of prohibition against unions with close kin. This taboo against cousins' marrying is important, argues Gutman, because it is one of many indications of a strong awareness among slaves of an extended kinship network. The fact that distantly related kin would care for children separated from their families also suggests this awareness. When blood relationships were few, as in newly created plantations in the Southwest, "fictive" kinship

arrangements took their place until a new pattern of consanguinity developed.. Gutman presents convincing evidence that this extended kinship structure—which he believes developed by the mid-to-late eighteenth century—provided the foundations for the strong communal consciousness that existed among slaves.

In sum, Gutman's study is significant because it offers a closely reasoned and original explanation of some of the slaves' achievements, one that correctly emphasizes the resources that slaves themselves possessed.

20. According to the passage, Fogel, Engerman, Genovese, and Gutman have all done which of the following?

- I. Discounted the influence of plantation owners on slaves' achievements.
- II. Emphasized the achievements of slaves.
- III. Pointed out the prevalence of the two-parent household among slaves.
- IV. Showed the connection between stable monogamy and slaves' cultural heritage.

- (A) I and II only
- (B) I and IV only
- (C) II and III only
- (D) I, III, and IV only
- (E) II, III, and IV only

21. With which of the following statements regarding the resources that historians ought to use would the author of the passage be most likely to agree?

- (A) Historians ought to make use of written rather than oral accounts.
- (B) Historians should rely primarily on birth registers.
- (C) Historians should rely exclusively on data that can be quantified.
- (D) Historians ought to make use of data that can be quantified.
- (E) Historians ought to draw on earlier historical research but they should do so in order to refute it.

GO ON TO THE NEXT PAGE.

22. Which of the following statements about the formation of the Black heritage of folklore, music, and religious expression is best supported by the information presented in the passage?
- (A) The heritage was formed primarily out of the experiences of those slaves who attempted to preserve the stability of their families.
- (B) The heritage was not formed out of the experiences of those slaves who married their cousins.
- (C) The heritage was formed more out of the African than out of the American experiences of slaves.
- (D) The heritage was not formed out of the experiences of only a single generation of slaves.
- (E) The heritage was formed primarily out of slaves' experiences of interdependence on newly created plantations in the Southwest.
23. It can be inferred from the passage that, of the following, the most probable reason why a historian of slavery might be interested in studying the type of plantations mentioned in line 25 is that this type would
- (A) give the historian access to the most complete plantation birth registers
- (B) permit the historian to observe the kinship patterns that had been most popular among West African tribes
- (C) provide the historian with evidence concerning the preference of freed slaves for stable monogamy
- (D) furnish the historian with the opportunity to discover the kind of marital commitment that slaves themselves chose to have
- (E) allow the historian to examine the influence of slaves' preferences on the actions of plantation owners
24. According to the passage, all of the following are true of the West African rules governing marriage mentioned in lines 46-50 EXCEPT:
- (A) The rules were derived from rules governing fictive kinship arrangements.
- (B) The rules forbade marriages between close kin.
- (C) The rules are mentioned in Herbert Gutman's study.
- (D) The rules were not uniform in all respects from one West African tribe to another.
- (E) The rules have been considered to be a possible source of slaves' marriage preferences.
25. Which of the following statements concerning the marriage practices of plantation owners during the period of Black slavery in the United States can most logically be inferred from the information in the passage?
- (A) These practices began to alter sometime around the mid-eighteenth century.
- (B) These practices varied markedly from one region of the country to another.
- (C) Plantation owners usually based their choice of marriage partners on economic considerations.
- (D) Plantation owners often married earlier than slaves.
- (E) Plantation owners often married their cousins.
26. Which of the following best describes the organization of the passage?
- (A) The author compares and contrasts the work of several historians and then discusses areas for possible new research.
- (B) The author presents his thesis, draws on the work of several historians for evidence to support his thesis, and concludes by reiterating his thesis.
- (C) The author describes some features of a historical study and then uses those features to put forth his own argument.
- (D) The author summarizes a historical study, examines two main arguments from the study, and then shows how the arguments are potentially in conflict with one another.
- (E) The author presents the general argument of a historical study, describes the study in more detail, and concludes with a brief judgment of the study's value.
27. Which of the following is the most appropriate title for the passage, based on its content?
- (A) The Influence of Herbert Gutman on Historians of Slavery in the United States
- (B) Gutman's Explanation of How Slaves Could Maintain a Cultural Heritage and Develop a Communal Consciousness
- (C) Slavery in the United States: New Controversy About an Old Subject
- (D) The Black Heritage of Folklore, Music, and Religious Expression: Its Growing Influence
- (E) The Black Family and Extended Kinship Structure: How They Were Important for the Freed Slave

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. ACCELERATE: (A) swerve (B) arouse
(C) dispel (D) reject (E) retard
29. JABBER: (A) tickle (B) argue
(C) stroke (D) speak slowly
(E) joke inaptly
30. WARMONGER: (A) commentator
(B) liaison (C) lobbyist
(D) emissary (E) pacifist
31. FLUENT: (A) insensitive
(B) inappropriate (C) derogatory
(D) halting (E) hypocritical
32. DISSONANCE: (A) concord
(B) confederacy (C) collusion
(D) consent (E) contract
33. SAVANT:
(A) flatterer
(B) bore
(C) unlearned person
(D) unprincipled individual
(E) misunderstood advisor
34. BREACH: (A) garner (B) solder
(C) keep silent (D) move forward
(E) give approval
35. TORTUOUS: (A) enduring (B) informal
(C) cautious (D) simplistic
(E) straightforward
36. PLETHORA: (A) vacuousness
(B) narrowness (C) choice
(D) dearth (E) confusion
37. POSTURE: (A) walk clumsily
(B) behave naturally (C) impose arbitrarily
(D) publicize widely (E) explain carefully
38. GOSSAMER: (A) sincere (B) taciturn
(C) intense (D) awkward (E) ponderous

FOR GENERAL TEST 7 ONLY

Answer Key and Percentages^{*} of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 2			Section 3			Section 4			Section 5			Section 6		
Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +
1	E	63	1	A	87	1	C	90	1	D	93	1	A	86	1	C	65
2	A	68	2	D	75	2	B	85	2	A	90	2	C	72	2	D	52
3	B	67	3	E	70	3	A	86	3	C	88	3	E	41	3	C	87
4	C	62	4	D	59	4	B	81	4	C	89	4	B	89	4	B	58
5	A	58	5	E	60	5	C	72	5	A	84	5	D	73	5	D	86
6	D	57	6	B	40	6	A	75	6	B	84	6	C	54	6	E	91
7	B	51	7	C	21	7	D	58	7	C	71	7	B	84	7	A	81
8	D	90	8	B	94	8	A	56	8	A	73	8	C	57	8	D	75
9	C	91	9	C	86	9	D	64	9	B	59	9	B	59	9	D	54
10	C	80	10	C	51	10	C	53	10	D	59	10	E	51	10	E	77
11	C	45	11	B	46	11	B	46	11	B	57	11	A	42	11	E	62
12	B	32	12	D	50	12	A	36	12	A	44	12	D	42	12	B	80
13	B	46	13	A	45	13	C	42	13	B	33	13	E	67	13	A	57
14	D	36	14	C	30	14	D	28	14	C	40	14	A	57	14	C	67
15	B	40	15	C	32	15	C	27	15	D	25	15	B	44	15	E	24
16	A	21	16	A	15	16	B	92	16	E	86	16	D	42	16	D	51
17	E	54	17	A	83	17	B	84	17	D	79	17	A	36	17	E	39
18	D	52	18	E	48	18	C	87	18	C	75	18	D	32	18	A	44
19	C	62	19	C	51	19	E	96	19	D	64	19	E	16	19	D	52
20	E	74	20	C	63	20	D	60	20	B	73	20	A	16	20	A	18
21	E	66	21	D	66	21	A	87	21	C	80	21	C	35	21	C	32
22	B	72	22	D	23	22	D	62	22	A	68	22	D	17	22	E	28
23	D	49	23	D	52	23	B	89	23	C	30	23	C	57	23	A	45
24	A	30	24	A	53	24	C	66	24	B	71	24	A	32	24	B	42
25	E	39	25	E	58	25	A	48	25	A	17	25	B	34	25	A	32
26	A	44	26	E	52	26	D	55	26	E	57						
27	A	35	27	B	59	27	E	50	27	D	32						
28	B	84	28	E	90	28	A	48	28	B	34						
29	D	77	29	D	81	29	E	47	29	B	41						
30	C	82	30	E	79	30	B	27	30	E	33						
31	B	82	31	D	78												
32	E	74	32	A	53												
33	D	52	33	C	47												
34	E	45	34	B	33												
35	B	36	35	E	41												
36	E	27	36	D	32												
37	A	21	37	B	31												
38	C	33	38	E	26												

*Estimated P + for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 8

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. Even though formidable winters are the norm in the Dakotas, many people were unprepared for the _____ of the blizzard of 1888.
(A) inevitability (B) ferocity (C) importance
(D) probability (E) mildness
2. As the first streamlined car, the Airflow represented a _____ in automotive development, and although its sales were _____, it had an immense influence on automobile design.
(A) milestone..disappointing
(B) breakthrough..significant
(C) regression..unimportant
(D) misjudgment..calculable
(E) revolution..tolerable
3. While nurturing parents can compensate for adversity, cold or inconsistent parents may _____ it.
(A) exacerbate (B) neutralize (C) eradicate
(D) ameliorate (E) relieve
4. The architects of New York's early skyscrapers, hinting here at a twelfth-century cathedral, there at a fifteenth-century palace, sought to legitimize the city's social strivings by _____ a history the city did not truly _____.
(A) revealing..deserve
(B) displaying..desire
(C) evoking..possess
(D) preserving..experience
(E) flouting..believe
5. Actual events in the history of life on Earth are accidental in that any outcome embodies just one _____ among millions; yet each outcome can be _____ interpreted.
(A) coincidence..randomly
(B) relationship..predictably
(C) fact..readily
(D) happening..uniquely
(E) possibility..rationally
6. Although some of her fellow scientists _____ the unorthodox laboratory methodology that others found innovative, unanimous praise greeted her experimental results: at once pioneering and _____.
(A) ignored..untrustworthy
(B) complimented..foreseeable
(C) welcomed..mundane
(D) declaimed..unexceptionable
(E) attacked..inconclusive
7. Early critics of Emily Dickinson's poetry mistook for simplemindedness the surface of artlessness that in fact she constructed with such _____.
(A) astonishment (B) vexation (C) allusion
(D) innocence (E) cunning

GO ON TO THE NEXT PAGE.

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. MICROSCOPE : SMALL ::

- (A) telescope : distant
- (B) monocle : single
- (C) lens : refracted
- (D) camera : photographic
- (E) periscope : military

9. EXHIBITION : PAINTING ::

- (A) concert : symphony
- (B) accompaniment : melody
- (C) audition : chorus
- (D) improvisation : solo
- (E) rehearsal : orchestra

10. STERILIZATION : MICROORGANISMS ::

- (A) amnesty : deserters
- (B) defamation : enemies
- (C) inoculation : vaccine
- (D) deforestation : trees
- (E) assassination : murderers

11. RUFFLE : SHIRT ::

- (A) rafter : roof
- (B) molding : cabinet
- (C) gate : path
- (D) curb : sidewalk
- (E) shade : window

12. EMIGRATE : EXILE ::

- (A) select : organize
- (B) appoint : nominate
- (C) capture : imprison
- (D) enlist : conscript
- (E) contribute : deduct

13. BARRAGE : EXPLOSIVES ::

- (A) cacophony : sounds
- (B) deluge : rain
- (C) vista : sights
- (D) grenade : bombs
- (E) volcano : lava

14. WARY : GULLED ::

- (A) passionate : moved
- (B) taciturn : goaded
- (C) loquacious : befriended
- (D) vigilant : ambushed
- (E) shrill : satisfied

15. WILLFULNESS : HEADSTRONG ::

- (A) glibness : astute
- (B) determination : attentive
- (C) elegance : grandiose
- (D) subservience : fawning
- (E) anxiety : pessimistic

16. UNTENABLE : DEFENDED ::

- (A) valuable : insured
- (B) fordable : crossed
- (C) unjustifiable : forgiven
- (D) unpretentious : admired
- (E) invulnerable : injured

GO ON TO THE NEXT PAGE.

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.

Because of its accuracy in outlining the Earth's subsurface, the seismic-reflection method remains the most important tool in the search for petroleum reserves. In field practice, a subsurface is mapped by arranging a series of wave-train sources, such as small dynamite explosions, in a grid pattern. As each source is activated, it generates a wave train that moves downward at a speed determined uniquely by the rock's elastic characteristics. As rock interfaces are crossed, the elastic characteristics encountered generally change abruptly, which causes part of the energy to be reflected back to the surface, where it is recorded by seismic instruments. The seismic records must be processed to correct for positional differences between the source and the receiver, for unrelated wave trains, and for multiple reflections from the rock interfaces. Then the data acquired at each of the specific source locations are combined to generate a physical profile of the subsurface, which can eventually be used to select targets for drilling.

17. The passage is primarily concerned with
- (A) describing an important technique
 - (B) discussing a new method
 - (C) investigating a controversial procedure
 - (D) announcing a significant discovery
 - (E) promoting a novel application
18. According to the passage, in the seismic-reflection method all of the following have a significant effect on the signal detected by the seismic instruments EXCEPT the
- (A) presence of unrelated wave trains
 - (B) placement of the seismic instruments
 - (C) number of sources in the grid pattern
 - (D) nature of the reflectivity of the rock interfaces
 - (E) properties of rocks through which the wave train has traveled

19. It can be inferred from the passage that the seismic-reflection method would be likely to yield an inaccurate physical profile of the subsurface in which of the following circumstances?
- (A) If the speed at which the wave train moved downward changed
 - (B) If the receiver were not positioned directly at the wave-train source.
 - (C) If the rock on one side of a rock interface had similar elastic characteristics to those of the rock on the other side.
 - (D) If the seismic records obtained for the different sources in a grid were highly similar to each other
 - (E) If there were no petroleum deposits beneath the area defined by the grid of wave-train sources
20. Which of the following best describes the organization of the passage?
- (A) A method is criticized, and an alternative is suggested.
 - (B) An illustration is examined, and some errors are exposed.
 - (C) An assertion is made, and a procedure is outlined.
 - (D) A series of examples is presented, and a conclusion is drawn.
 - (E) A hypothesis is advanced, and supporting evidence is supplied.

GO ON TO THE NEXT PAGE.

Line
(5) Modern archaeological finds can still contribute much to the study of ancient literature. For example, forty years ago a survey of the early Greek dramatist Aeschylus' plays would have started with *The Suppliant Women*. Many factors internal to the play, but perhaps most especially the prominence of the chorus (which in this play has the main role), led scholars to consider it one of Aeschylus' earlier works. The consensus was that here was a drama truly reflecting an early stage in the evolution of tragedy out of choral lyric. The play was dated as early as the 490's B.C., in any event, well before Aeschylus' play *The Persians* of 472 B.C. Then, in 1952, a fragment of papyrus found at Oxyrhynchus was published stating the official circumstances and results of a dramatic contest. The fragment announced that Aeschylus won first prize with his Danaid tetralogy, of which *The Suppliant Women* is the opening play, and defeated Sophocles in the process. Sophocles did not compete in any dramatic contest before 468 B.C., when he won his first victory. Hence, except by special pleading (e.g., that the tetralogy was composed early in Aeschylus' career but not produced until the 460's B.C.), the Danaid tetralogy must be put after 468 B.C. In addition, a few letters in the fragment suggest the name Archedemides, archon in 463 B.C., thus perhaps tying the plays to that precise date, almost exactly halfway between Aeschylus' *Seven Against Thebes* of 467 B.C. and his *Oresteia*.

(10) (20) (25)

(30) The implication of the papyrus administered a severe shock to the vast majority of classical scholars, who had confidently asserted that not only the role of the chorus but also language, metrics, and characterization all pointed to an early date. The discovery has resulted in no less than a total reevaluation of every chronological criterion that has been applied to or derived from (35) Aeschylus' plays. The activity has been brisk, and a new creed has now spread. The prominence of the chorus in *The Suppliant Women* now is seen not as a sign of primitivism but as analogous to the massive choral songs of the *Oresteia*. Statistics have been formulated, or reformulated, to show that stylistically *The Suppliant Women* does actually occupy a position after *The Persians* and *Seven Against Thebes*, which now become the "primitive" plays, and before the *Oresteia*. While the new doctrine seems almost certainly correct, the one papyrus (40) (45) fragment raises the specter that another may be unearthed, showing, for instance, that it was a posthumous production of the Danaid tetralogy which bested Sophocles, and throwing the date once more into utter confusion. This is unlikely to happen, but it warns us (50) that perhaps the most salutary feature of the papyrus scrap is its message of the extreme difficulty of classifying and categorizing rigidly the development of a creative artist.

21. The author of the passage focuses primarily on
- (A) discussing a series of modern archaeological finds and their impact on the study of Greek literature
 - (B) recounting the effect of one archaeological find on modern ideas concerning a particular author's work
 - (C) giving a definitive and coherent account of the chronology of a particular author's work
 - (D) illustrating the many varieties of difficulties involved in establishing facts concerning ancient literature
 - (E) determining the exact value of archaeological finds in relation to the history of ancient literature
22. With respect to the study of ancient literature, which of the following statements best expresses the author's main point concerning modern archaeological finds?
- (A) They can profoundly alter accepted views of ancient literary works, and can encourage flexibility in the way scholars look at the creative development of any artist.
 - (B) They can be severely shocking and can have a revivifying effect on the study of ancient literature, which has recently suffered from a lack of interest on the part of scholars.
 - (C) They can raise more questions than they answer and can be unreliable sources of information.
 - (D) They generally confirm scholars' ideas about ancient literary works and allow them to dispense with inferences drawn from the works' internal structure.
 - (E) They often undermine scholarly consensus in certain areas and create utter confusion concerning an author's work.

GO ON TO THE NEXT PAGE.

23. According to the passage, in the absence of definite knowledge concerning the dates of composition of ancient literary works, literary historians do which of the following when trying to establish the chronology of an author's work?
- (A) Make assumptions about a single work's date of composition if such assumptions would not seriously affect interpretations of other works by the same author.
- (B) Draw inferences concerning the date of a work's composition based on evidence internal to that work and on the author's other works.
- (C) Ignore the date of a work's composition which is supplied by archaeological research when literary factors internal to the work contradict that date.
- (D) Refrain from speculation concerning a work's date of composition unless archaeological finds produce information concerning it.
- (E) Estimate the date of a work's composition without attempting to relate it to the author's development as an artist.
24. It can be inferred from the passage that which of the following plays or groups of plays is considered the latest in the date of its composition?
- (A) *The Persians* (B) The Danaid tetralogy
(C) The *Oresteia* (D) *Seven Against Thebes*
(E) *The Suppliant Women*
25. With which of the following statements regarding the chronological criteria mentioned in lines 33-34 would the author be most likely to agree?
- (A) Such criteria, whether applied to or derived from the plays, should only be used to confirm already existing knowledge.
- (B) Such criteria, although derived from reliable external and internal evidence, should be changed continually to avoid rigidity in thinking.
- (C) Such criteria, based on statistical analysis, are inherently more reliable than those of forty years ago.
- (D) Such criteria, even when unsupported by external evidence, can resolve most questions.
- (E) Such criteria, based on often ambiguous internal evidence, can lead to erroneous reconstructions of the chronology of an author's work.
26. The author's attitude toward the "activity" mentioned in line 35 and its consequences can best be described as one of
- (A) amused tolerance (B) mocking envy
(C) grave doubt (D) angry disapproval
(E) unrestrained enthusiasm
27. The allusion to the hypothetical papyrus fragment in lines 45-49 does which of the following?
- (A) Supports an argument concerning the date of *The Suppliant Women*.
- (B) Refutes the views of the majority of scholars concerning the Oxyrhynchus papyrus find.
- (C) Predicts the future results of archaeological research proposed in the passage.
- (D) Undermines the validity of the currently accepted chronology of Aeschylus' works.
- (E) Qualifies the author's agreement with the "new creed" developed since the Oxyrhynchus papyrus find.

GO ON TO THE NEXT PAGE.

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. SHALLOW: (A) arbitrary (B) painstaking
(C) profound (D) restive (E) contrite
29. IMMUNE: (A) toxic (B) virulent
(C) convalescent (D) having little energy
(E) having no resistance
30. PROPAGATE:
(A) hesitate to join
(B) hope to prosper
(C) decide to accept
(D) begin to falter
(E) fail to multiply
31. LULL:
(A) pronounced interest
(B) intense discussion
(C) speedy resolution
(D) increased activity
(E) enhanced performance
32. PERPETUAL: (A) antecedent (B) coincident
(C) intermittent (D) precipitous
(E) languorous
33. ACCOLADE: (A) guarded emotion
(B) scarce resource (C) temporization
(D) repercussion (E) criticism
34. GAMBOL: (A) admit (B) plod
(C) ruin (D) follow (E) fret
35. REFUTATION: (A) approval (B) verification
(C) amplification (D) concurrence
(E) computation
36. REQUITE: (A) incite (B) applaud
(C) consume quickly (D) make inhospitable
(E) leave unrepaid
37. REVERE: (A) imitate (B) dismiss
(C) confuse (D) profane (E) disgrace
38. MOLLIFY: (A) ire (B) commence
(C) abate (D) oppose (E) infuse

SECTION 5

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. This project is the first step in a long-range plan of research whose _____ goal, still many years off, is the creation of a new prototype.
(A) cooperative (B) reasoned (C) original
(D) ultimate (E) intentional
2. Eric was frustrated because, although he was adept at making lies sound _____, when telling the truth, he _____ the power to make himself believed.
(A) plausible..lacked (B) convincing..held
(C) honest..found (D) true..acquired
(E) logical..claimed
3. In certain forms of discourse such as the parable, the central point of a message can be effectively communicated even though this point is not _____.
(A) preferred (B) explicit (C) inferable
(D) discerned (E) illustrated
4. Always circumspect, she was reluctant to make judgments, but once arriving at a conclusion, she was _____ in its defense.
(A) nonplussed (B) obsequious
(C) intransigent (D) deferential
(E) negligent
5. The techniques now available to livestock breeders will continue to be _____, but will probably be _____ by new ones under development.
(A) fruitful..reversed
(B) refined..upgraded
(C) inconvenient..reassessed
(D) used..supplemented
(E) harmless..improved
6. Any population increase beyond a certain level necessitates greater _____ vegetable foods; thus, the ability of a society to choose meat over cereals always arises, in part, from _____ the number of people.
(A) reliance on..replenishing
(B) production of..estimating
(C) spending on..concealing
(D) recourse to..limiting
(E) attention to..varying
7. Ethologists are convinced that many animals survive through learning—but learning that is _____ their genetic programming, learning as thoroughly _____ as the most instinctive of behavioral responses.
(A) superseded by..primitive
(B) compatible with..transient
(C) complementary to..familiar
(D) derived from..inventive
(E) dictated by..stereotyped

GO ON TO THE NEXT PAGE.

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. OSTRICH : BIRD ::

- (A) caterpillar : moth
- (B) lizard : frog
- (C) bud : leaf
- (D) tiger : cat
- (E) gust : storm

9. WARDROBE : CLOTHES ::

- (A) stove : crockery
- (B) bookcase : books
- (C) drawer : shelves
- (D) pantry : medicine
- (E) necklace : earrings

10. PRACTICING : EXPERTISE ::

- (A) thinking : logic
- (B) writing : clarity
- (C) growing : health
- (D) exercising : strength
- (E) eating : nutrition

11. ARTERY : PLAQUE ::

- (A) river : levee
- (B) track : switch
- (C) channel : silt
- (D) information : flow
- (E) tunnel : wall

12. ANECDOTE : STORY ::

- (A) film : theater
- (B) chapter : novel
- (C) lyric : song
- (D) joke : parody
- (E) skit : play

13. SUPPLANT : REPLACE ::

- (A) snatch : take
- (B) beg : invite
- (C) convict : accuse
- (D) savor : gulp
- (E) miss : lose

14. ALLERGY : REACTION ::

- (A) rash : body
- (B) lancet : instrument
- (C) antihistamine : symptom
- (D) cocoon : skeleton
- (E) pollen : flower

15. APHORISTIC : TERSE ::

- (A) eloquent : ornate
- (B) esoteric : important
- (C) hyperbolic : exaggerated
- (D) metaphorical : fantastic
- (E) equivocal : straightforward

16. ZEALOUS : ENTHUSIASTIC ::

- (A) pedantic : educated
- (B) flamboyant : stylish
- (C) cautious : prudent
- (D) pious : virtuous
- (E) idolatrous : devoted

GO ON TO THE NEXT PAGE.

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.

Scholars often fail to see that music played an important role in the preservation of African culture in the United States. They correctly note that slavery stripped some cultural elements from Black people—their political and economic systems—but they underestimate the significance of music in sustaining other African cultural values. African music, unlike the music of some other cultures, was based on a total vision of life in which music was not an isolated social domain. In African culture music was pervasive, serving not only religion, but all phases of life, including birth, death, work, and play. The methods that a community devises to perpetuate itself come into being to preserve aspects of the cultural legacy that that community perceives as essential. Music, like art in general, was so inextricably a part of African culture that it became a crucial means of preserving the culture during and after the dislocations of slavery.

17. The primary purpose of the passage is to

- (A) analyze the impact that slavery had on African political and economic systems
- (B) review the attempt of recent scholarship to study the influence of African music on other music
- (C) correct the failure of some scholars to appreciate the significance of music in African culture
- (D) survey the ways by which people attempt to preserve their culture against the effects of oppression
- (E) compare the relative importance of music with that of other art forms in culture

18. In line 9, the phrase "isolated social domain" refers to

- (A) African music in relation to contemporary culture as a whole
- (B) music as it may be perceived in non-African cultures
- (C) a feature of African music that aided in transmitting African cultural values
- (D) an aspect of the African cultural legacy
- (E) the influence of music on contemporary culture

19. Which of the following statements concerning the function of African music can be inferred from the passage?

- (A) It preserved cultural values because it was thoroughly integrated into the lives of the people.
- (B) It was more important in the development of African religious life than in other areas of culture.
- (C) It was developed in response to the loss of political and economic systems.
- (D) Its pervasiveness in African culture hindered its effectiveness in minimizing the impact of slavery.
- (E) Its isolation from the economic domains of life enabled it to survive the destructive impact of slavery.

20. According to the author, scholars would err in drawing which of the following conclusions?

- I. Slavery stripped the slaves of their political and economic systems.
 - II. African music was similar to all other traditions of music in that it originated in a total vision of life.
 - III. Music was a crucial part of the African cultural legacy.
- (A) I only
 - (B) II only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III

GO ON TO THE NEXT PAGE.

Traditionally, pollination by wind has been viewed as a reproductive process marked by random events in which the vagaries of the wind are compensated for by the generation of vast quantities of pollen, so that the ultimate production of new seeds is assured at the expense of producing much more pollen than is actually used. Because the potential hazards pollen grains are subject to as they are transported over long distances are enormous, wind-pollinated plants have, in the view above, compensated for the ensuing loss of pollen through happenstance by virtue of producing an amount of pollen that is one to three orders of magnitude greater than the amount produced by species pollinated by insects.

However, a number of features that are characteristic of wind-pollinated plants reduce pollen waste. For example, many wind-pollinated species fail to release pollen when wind speeds are low or when humid conditions prevail. Recent studies suggest another way in which species compensate for the inefficiency of wind pollination. These studies suggest that species frequently take advantage of the physics of pollen motion by generating specific aerodynamic environments within the immediate vicinity of their female reproductive organs. It is the morphology of these organs that dictates the pattern of airflow disturbances through which pollen must travel. The speed and direction of the airflow disturbances can combine with the physical properties of a species' pollen to produce a species-specific pattern of pollen collision on the surfaces of female reproductive organs. Provided that these surfaces are strategically located, the consequences of this combination can significantly increase the pollen-capture efficiency of a female reproductive organ.

A critical question that remains to be answered is whether the morphological attributes of the female reproductive organs of wind-pollinated species are evolutionary adaptations to wind pollination or are merely fortuitous. A complete resolution of the question is as yet impossible since adaptation must be evaluated for each species within its own unique functional context. However, it must be said that, while evidence of such evolutionary adaptations does exist in some species, one must be careful about attributing morphology to adaptation. For example, the spiral arrangement of scale-bract complexes on ovule-bearing pine cones, where the female reproductive organs of conifers are located, is important to the production of airflow patterns that spiral over the cone's surfaces, thereby passing airborne pollen from one scale to the next. However, these patterns cannot be viewed as an adaptation to wind pollination because the spiral arrangement occurs in a number of non-wind-pollinated plant lineages and is regarded as a characteristic of vascular plants, of which conifers are only one kind, as a whole. Therefore, the spiral arrangement is not likely to be the result of a direct adaptation to wind pollination.

21. The author of the passage is primarily concerned with discussing
 - (A) the current debate on whether the morphological attributes of wind-pollinated plants are evolutionary adaptations
 - (B) the kinds of airflow patterns that permit wind-pollinated plants to capture pollen most efficiently
 - (C) the ways in which the reproductive processes of wind-pollinated plants are controlled by random events
 - (D) a recently proposed explanation of a way in which wind-pollinated plants reduce pollen waste
 - (E) a specific morphological attribute that permits one species of wind-pollinated plant to capture pollen
22. The author suggests that explanations of wind pollination that emphasize the production of vast quantities of pollen to compensate for the randomness of the pollination process are
 - (A) debatable and misleading
 - (B) ingenious and convincing
 - (C) accurate but incomplete
 - (D) intriguing but controversial
 - (E) plausible but unverifiable
23. According to the passage, the "aerodynamic environments" mentioned in line 23, when they are produced, are primarily determined by the
 - (A) presence of insects near the plant
 - (B) physical properties of the plant's pollen
 - (C) shape of the plant's female reproductive organs
 - (D) amount of pollen generated by the plant
 - (E) number of seeds produced by the plant
24. According to the passage, true statements about the release of pollen by wind-pollinated plants include which of the following?
 - I. The release can be affected by certain environmental factors.
 - II. The amount of pollen released increases on a rainy day.
 - III. Pollen is sometimes not released by plants when there is little wind.
 - (A) II only
 - (B) III only
 - (C) I and II only
 - (D) I and III only
 - (E) I, II, and III

GO ON TO THE NEXT PAGE.

25. The passage suggests that the recent studies cited in lines 19-21 have not done which of the following?
- (A) Made any distinctions between different species of wind-pollinated plants.
 - (B) Considered the physical properties of the pollen that is produced by wind-pollinated plants.
 - (C) Indicated the general range within which plant-generated airflow disturbances are apt to occur.
 - (D) Included investigations of the physics of pollen motion and its relationship to the efficient capture of pollen by the female reproductive organs of wind-pollinated plants.
 - (E) Demonstrated that the morphological attributes of the female reproductive organs of wind-pollinated plants are usually evolutionary adaptations to wind pollination.
26. It can be inferred from the passage that the claim that the spiral arrangement of scale-bract complexes on an ovule-bearing pine cone is an adaptation to wind pollination would be more convincing if which of the following were true?
- (A) Such an arrangement occurred only in wind-pollinated plants.
 - (B) Such an arrangement occurred in vascular plants as a whole.
 - (C) Such an arrangement could be shown to be beneficial to pollen release.
 - (D) The number of bracts could be shown to have increased over time.
 - (E) The airflow patterns over the cone's surfaces could be shown to be produced by such arrangements.
27. Which of the following, if known, is likely to have been the kind of evidence used to support the view described in the first paragraph?
- (A) Wind speeds need not be very low for wind-pollinated plants to fail to release pollen.
 - (B) The female reproductive organs of plants often have a sticky surface that allows them to trap airborne pollen systematically.
 - (C) Grasses, as well as conifers, generate specific aerodynamic environments within the immediate vicinity of their reproductive organs.
 - (D) Rain showers often wash airborne pollen out of the air before it ever reaches an appropriate plant.
 - (E) The density and size of an airborne pollen grain are of equal importance in determining whether that grain will be captured by a plant.

GO ON TO THE NEXT PAGE.

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. IMPROMPTU: (A) carefully rehearsed
(B) widely recognized (C) narrowly focused
(D) purposely vague (E) unwittingly funny
29. BALLOON: (A) regain completely
(B) decrease slowly (C) respond rapidly
(D) survey thoroughly (E) request humbly
30. AVID: (A) independent (B) inquisitive
(C) forgetful (D) swift (E) indifferent
31. MOROSE: (A) fast-talking (B) quick-witted
(C) lighthearted (D) casual (E) charming
32. ANOMALY:
(A) predicted occurrence
(B) temporary solution
(C) easy problem
(D) continuous process
(E) constant interference

33. NEOLOGISM: (A) syllogism (B) idealism
(C) archaism (D) paternalism (E) ostracism
34. RAREFY: (A) condense (B) conceive
(C) consign (D) conduct (E) confound
35. CAUSTIC: (A) nonflammable (B) anesthetic
(C) antiseptic (D) convoluted (E) innocuous
36. SOLVENT: (A) catalyst (B) detergent
(C) reactant (D) lubricant (E) precipitant
37. ESTIMABLE: (A) recalcitrant (B) mendacious
(C) infamous (D) obstinate (E) stingy
38. PRODIGALITY: (A) disinterest (B) guilt
(C) passivity (D) penury (E) perfidy

FOR GENERAL TEST 8 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1		Section 5			
Number	Answer	P +	Number	Answer	P +
1	B	94	1	D	94
2	A	94	2	A	93
3	A	71	3	B	80
4	C	64	4	C	66
5	E	55	5	D	78
6	D	43	6	D	40
7	E	53	7	D	15
8	A	90	8	D	93
9	A	79	9	B	84
10	D	69	10	D	90
11	B	59	11	C	61
12	D	44	12	E	58
13	B	41	13	A	53
14	D	31	14	B	38
15	D	27	15	C	29
16	E	27	16	E	19
17	A	92	17	C	86
18	C	53	18	B	49
19	C	34	19	A	88
20	C	84	20	B	54
21	B	58	21	D	27
22	A	68	22	C	47
23	B	81	23	C	71
24	C	59	24	D	81
25	E	49	25	E	40
26	A	34	26	A	58
27	E	23	27	D	32
28	C	87	28	A	92
29	E	84	29	B	93
30	E	60	30	E	82
31	D	75	31	C	68
32	D	76	32	A	64
33	E	58	33	C	57
34	B	37	34	A	33
35	B	45	35	E	40
36	E	37	36	E	37
37	D	26	37	C	25
38	A	20	38	D	29

QUANTITATIVE ABILITY					
Section 2		Section 6			
Number	Answer	P +	Number	Answer	P +
1	B	93	1	A	91
2	C	83	2	B	82
3	C	83	3	A	82
4	A	87	4	B	74
5	D	89	5	D	68
6	A	78	6	A	77
7	B	77	7	D	70
8	D	74	8	A	61
9	D	56	9	C	46
10	B	80	10	D	47
11	D	68	11	C	49
12	A	38	12	C	35
13	C	47	13	B	26
14	C	27	14	C	37
15	A	20	15	C	26
16	E	81	16	D	93
17	B	80	17	D	81
18	A	63	18	A	80
19	D	57	19	B	75
20	E	49	20	B	70
21	E	92	21	D	70
22	D	71	22	B	56
23	A	71	23	B	66
24	C	55	24	A	56
25	B	37	25	E	34
26	A	62	26	C	57
27	C	44	27	C	45
28	E	41	28	C	40
29	E	32	29	B	32
30	D	27	30	E	15

ANALYTICAL ABILITY					
Section 3		Section 7			
Number	Answer	P +	Number	Answer	P +
1	E	91	1	E	80
2	B	80	2	C	77
3	D	90	3	E	72
4	D	77	4	A	62
5	E	79	5	D	61
6	C	68	6	C	51
7	A	69	7	B	79
8	C	81	8	B	67
9	D	57	9	A	83
10	D	78	10	C	81
11	A	61	11	E	86
12	D	64	12	D	82
13	B	77	13	B	64
14	A	70	14	B	46
15	E	62	15	E	50
16	C	53	16	C	49
17	B	35	17	A	44
18	A	49	18	D	52
19	D	32	19	B	55
20	A	63	20	D	28
21	E	46	21	E	25
22	E	31	22	E	18
23	B	44	23	D	63
24	B	59	24	D	73
25	B	41	25	C	59

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. Though some of the information the author reveals about Russian life might surprise Americans, her major themes are —— enough.
(A) familiar (B) thorough (C) vital
(D) original (E) interesting
2. In the early twentieth century, the discovery of radium —— the popular imagination; not only was its discoverer, Marie Curie, idolized, but its market value —— that of the rarest gemstone.
(A) stormed. .sank to
(B) horrified. .approached
(C) taxed. .was equal to
(D) enflamed. .exceeded
(E) escaped. .was comparable to
3. The president's secretary and his chief aide adored him, and both wrote obsessively —— personal memoirs about him; unfortunately, however, —— does not make for true intimacy.
(A) fatuous. .frankness
(B) devoted. .idolatry
(C) garrulous. .confidentiality
(D) candid. .discretion
(E) rancorous. .criticism
4. Despite claims that his philosophy can be traced to ----- source, the philosophy in fact draws liberally on several traditions and methodologies and so could justifiably be termed -----.
(A) a particular. .consistent
(B) a schematic. .multifaceted
(C) a dominant. .cogent
(D) an authoritative. .derivative
(E) a single. .eclectic
5. Du Bois' foreign trips were the highlight, not the ——, of his travels; he was habitually on the go across and around the United States.
(A) idiosyncrasy (B) result (C) precursor
(D) culmination (E) totality
6. Business forecasts usually prove reasonably accurate when the assumption that the future will be much like the past is ——; in times of major —— in the business environment, however, forecasts can be dangerously wrong.
(A) specified. .discontinuities
(B) questioned. .surges
(C) contradicted. .improvements
(D) entertained. .risks
(E) satisfied. .shifts
7. It is almost always desirable to increase the yield of a crop if —— increases are not also necessary in energy, labor, and other inputs of crop production.
(A) predetermined (B) commensurate
(C) compatible (D) measured (E) equivocal

GO ON TO THE NEXT PAGE.

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. MISER : STINGY :: (A) porter : strong
(B) rebel : idle (C) sage : docile
(D) friend : snide (E) loner : solitary
9. AQUEDUCT : WATER :: (A) capillary : saliva
(B) artery : blood (C) esophagus : breath
(D) corridor : aircraft (E) tanker : fluids
10. ENZYME : CATALYST :: (A) vaccine : allergy
(B) bacterium : microbe (C) gland : muscle
(D) vein : organ (E) neuron : corpuscle
11. LIEN : CLAIM ::
(A) brief : investigation
(B) mortgage : interest
(C) foreclosure : pleading
(D) garnishment : presumption
(E) subpoena : command
12. VERBOSITY : WORDS ::
(A) harmoniousness : relationships
(B) floridness : embellishments
(C) interrogation : answers
(D) supposition : proposals
(E) condemnation : acts
13. QUIXOTIC : IDEALISTIC ::
(A) churlish : polite
(B) whimsical : steady
(C) disinterested : impartial
(D) touchy : sensitive
(E) central : random
14. PREEMPT : PRECEDENCE ::
(A) dissemble : diplomacy
(B) superintend : culpability
(C) preside : arbitration
(D) acquire : possession
(E) divest : implication
15. MALINGER : AIL :: (A) study : learn
(B) qualify : achieve (C) sneer : respect
(D) flatter : appreciate (E) clash : resolve
16. ARBOREAL : TREES :: (A) terrestrial : plains
(B) amphibious : rivers (C) herbaceous : plants
(D) subterranean : caves (E) sidereal : stars

GO ON TO THE NEXT PAGE.

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.

Line
(5)

(10)

(15)

Zooplankton, tiny animals adapted to an existence in the ocean, have evolved clever mechanisms for obtaining their food, minuscule phytoplankton (plant plankton). A very specialized feeding adaptation in zooplankton is that of the tadpolelike appendicularian who lives in a walnut-sized (or smaller) balloon of mucus equipped with filters that capture and concentrate phytoplankton. The balloon, a transparent structure that varies in design according to the type of appendicularian inhabiting it, also protects the animal and helps to keep it afloat. Water containing phytoplankton is pumped by the appendicularian's muscular tail into the balloon's incurrent filters, passes through the feeding filter where the appendicularian sucks the food into its mouth, and then goes through an exit passage. Found in all the oceans of the world, including the Arctic Ocean, appendicularians tend to remain near the water's surface where the density of phytoplankton is greatest.

17. It can be inferred from the passage that which of the following is true of appendicularians?
- (A) They are exclusively carnivorous.
 - (B) They have more than one method of obtaining food.
 - (C) They can tolerate frigid water.
 - (D) They can disguise themselves by secreting mucus.
 - (E) They are more sensitive to light than are other zooplankton.

18. The author is primarily concerned with
- (A) explaining how appendicularians obtain food
 - (B) examining the flotation methods of appendicularians
 - (C) mapping the distribution of appendicularians around the world
 - (D) describing how appendicularians differ from other zooplankton
 - (E) comparing the various types of balloons formed by appendicularians
19. According to the passage, all of the following are descriptive of appendicularians EXCEPT
- (A) tailed
 - (B) vegetarian
 - (C) small-sized
 - (D) single-celled
 - (E) ocean-dwelling
20. The passage suggests that appendicularians tend to remain in surface waters because they
- (A) prefer the warmer water near the surface
 - (B) are unable to secrete mucus at the lower levels of the ocean
 - (C) use the contrast of light and shadow at the surface to hide from predators
 - (D) live in balloons that cannot withstand the water pressure deeper in the ocean
 - (E) eat food that grows more profusely near the surface

GO ON TO THE NEXT PAGE.

Line
5) Students of United States history, seeking to identify the circumstances that encouraged the emergence of feminist movements, have thoroughly investigated the mid-nineteenth-century American economic and social conditions that affected the status of women. These historians, however, have analyzed less fully the development of specifically feminist ideas and activities during the same period. Furthermore, the ideological origins of feminism in the United States have been obscured because, even when historians did take into account those feminist ideas and activities occurring within the United States, they failed to recognize that feminism was then a truly international movement actually centered in Europe. American feminist activists who have been described as "solitary" and "individual theorists" were in reality connected to a movement—utopian socialism—which was already popularizing feminist ideas in Europe during the two decades that culminated in the first women's rights conference held at Seneca Falls, New York, in 1848. Thus, a complete understanding of the origins and development of nineteenth-century feminism in the United States requires that the geographical focus be widened to include Europe and that the detailed study already made of social conditions be expanded to include the ideological development of feminism.

10) (25)

10) The earliest and most popular of the utopian socialists were the Saint-Simonians. The specifically feminist part of Saint-Simonianism has, however, been less studied than the group's contribution to early socialism. This is regrettable on two counts. By 1832 feminism was the central concern of Saint-Simonianism and entirely absorbed its adherents' energy; hence, by ignoring its feminism, European historians have misunderstood Saint-Simonianism. Moreover, since many feminist ideas can be traced to Saint-Simonianism, European historians' appreciation of later feminism in France and the United States remained limited.

15) (35)

15) Saint-Simon's followers, many of whom were women, based their feminism on an interpretation of his project to reorganize the globe by replacing brute force with the rule of spiritual powers. The new world order would be ruled together by a male, to represent reflection, and a female, to represent sentiment. This complementarity reflects the fact that, while the Saint-Simonians did not reject the belief that there were innate differences between men and women, they nevertheless foresaw an equally important social and political role for both sexes in their utopia.

20) (45) (50) Only a few Saint-Simonians opposed a definition of sexual equality based on gender distinction. This minority believed that individuals of both sexes were born similar in capacity and character, and they ascribed male-female differences to socialization and education. The envisioned result of both currents of thought, however, was that women would enter public life in the new age and that sexual equality would reward men as well as women with an improved way of life.

21. It can be inferred that the author considers those historians who describe early feminists in the United States as "solitary" to be
- (A) insufficiently familiar with the international origins of nineteenth-century American feminist thought
 - (B) overly concerned with the regional diversity of feminist ideas in the period before 1848
 - (C) not focused narrowly enough in their geographical scope
 - (D) insufficiently aware of the ideological consequences of the Seneca Falls conference
 - (E) insufficiently concerned with the social conditions out of which feminism developed
22. According to the passage, which of the following is true of the Seneca Falls conference on women's rights?
- (A) It was primarily a product of nineteenth-century Saint-Simonian feminist thought.
 - (B) It was the work of American activists who were independent of feminists abroad.
 - (C) It was the culminating achievement of the utopian socialist movement.
 - (D) It was a manifestation of an international movement for social change and feminism.
 - (E) It was the final manifestation of the women's rights movement in the United States in the nineteenth century.
23. The author's attitude toward most European historians who have studied the Saint-Simonians is primarily one of
- (A) approval of the specific focus of their research
 - (B) disapproval of their lack of attention to the issue that absorbed most of the Saint-Simonians' energy after 1832
 - (C) approval of their general focus on social conditions
 - (D) disapproval of their lack of attention to links between the Saint-Simonians and their American counterparts
 - (E) disagreement with their interpretation of the Saint-Simonian belief in sexual equality

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24. The author mentions all of the following as characteristic of the Saint-Simonians EXCEPT:
- (A) The group included many women among its members.
 - (B) The group believed in a world that would be characterized by sexual equality.
 - (C) The group was among the earliest European socialist groups.
 - (D) Most members believed that women should enter public life.
 - (E) Most members believed that women and men were inherently similar in ability and character.
25. It can be inferred from the passage that the Saint-Simonians envisioned a utopian society having which of the following characteristics?
- (A) It would be worldwide.
 - (B) It would emphasize dogmatic religious principles.
 - (C) It would most influence the United States.
 - (D) It would have armies composed of women rather than of men.
 - (E) It would continue to develop new feminist ideas.
26. It can be inferred from the passage that the author believes that study of Saint-Simonianism is necessary for historians of American feminism because such study
- (A) would clarify the ideological origins of those feminist ideas that influenced American feminism
 - (B) would increase understanding of a movement that deeply influenced the utopian socialism of early American feminists
 - (C) would focus attention on the most important aspect of Saint-Simonian thought before 1832
 - (D) promises to offer insight into a movement that was a direct outgrowth of the Seneca Falls conference of 1848
 - (E) could increase understanding of those ideals that absorbed most of the energy of the earliest American feminists
27. According to the passage, which of the following would be the most accurate description of the society envisioned by most Saint-Simonians?
- (A) A society in which women were highly regarded for their extensive education
 - (B) A society in which the two genders played complementary roles and had equal status
 - (C) A society in which women did not enter public life
 - (D) A social order in which a body of men and women would rule together on the basis of their spiritual power
 - (E) A social order in which distinctions between male and female would not exist and all would share equally in political power

GO ON TO THE NEXT PAGE.

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. TOY: (A) think over seriously
(B) admire overtly (C) use sporadically
(D) praise unstintingly (E) covet irrationally
29. QUACK: (A) hard worker (B) true believer
(C) honest practitioner (D) careful employee
(E) experienced planner
30. FRINGE: (A) center (B) proximity
(C) breadth (D) outlet (E) continuity
31. FALLACIOUS: (A) safe (B) valid
(C) energetic (D) diverted (E) persuasive
32. CRYPTIC: (A) resonant (B) superficial
(C) unobjectionable (D) self-explanatory
(E) other-directed
33. RENT: (A) in abeyance (B) occupied
(C) undeserved (D) turned down
(E) made whole
34. CONSIDER: (A) activate (B) infer
(C) table (D) encourage (E) deter
35. TENUOUS: (A) finite (B) embedded
(C) convinced (D) substantial (E) proximate
36. MERCURIAL: (A) earthy (B) honest
(C) thoughtful (D) clumsy (E) constant
37. OPPROBRIUM: (A) good repute
(B) fair recompense (C) fidelity
(D) exposure (E) patience
38. VENERATION: (A) derision (B) blame
(C) avoidance (D) ostracism (E) defiance

SECTION 7

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. Job failure means being fired from a job, being asked to resign, or leaving ____ to protect yourself because you had very strong evidence that one of the first two was ____.
 - (A) voluntarily..impending
 - (B) abruptly..significant
 - (C) knowingly..operative
 - (D) understandably..pertinent
 - (E) eventually..intentional

2. The tone of Jane Carlyle's letter is guarded, and her feelings are always ____ by the wit and pride that made ____ plea for sympathy impossible for her.
 - (A) masked..a direct
 - (B) bolstered..a needless
 - (C) controlled..a circumspect
 - (D) enhanced..an intentional
 - (E) colored..an untimely

3. French folktales almost always take place within the basic ____ that correspond to the ____ setting of peasant life: on the one hand, the household and village and on the other, the open road.
 - (A) contexts..hierarchical
 - (B) structures..personal
 - (C) frameworks..dual
 - (D) chronologies..generic
 - (E) narratives..ambivalent

4. Nurturing the Royal Ballet's artistic growth while preserving its institutional stability has been difficult, because the claims of the latter seem inescapably to ____ development; apparently, attaining artistic success is simpler than ____ it.
 - (A) ensure..promoting
 - (B) inhibit..perpetuating
 - (C) undermine..resurrecting
 - (D) modify..appreciating
 - (E) supplement..confining

5. Inspired interim responses to hitherto unknown problems, New Deal economic strategems became ____ as a result of bureaucratization, their flexibility and adaptability destroyed by their transformation into rigid policies.
 - (A) politicized
 - (B) consolidated
 - (C) ossified
 - (D) ungovernable
 - (E) streamlined

6. Biologists ____ isolated oceanic islands like the Galapagos, because, in such small, laboratory-like settings, the rich hurly-burly of continental plant and animal communities is reduced to a scientifically ____ complexity.
 - (A) explore..diverse
 - (B) desert..manageable
 - (C) exploit..intimidating
 - (D) reject..intricate
 - (E) prize..tractable

7. The startling finding that variations in the rate of the Earth's rotation depend to an ____ degree on the weather has necessitated a complete ____ of the world's time-keeping methods.
 - (A) unexpected..overhaul
 - (B) anticipated..recalibration
 - (C) indeterminate..rejection
 - (D) unobservable..review
 - (E) estimated..acceptance

GO ON TO THE NEXT PAGE.

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. ORCHESTRA : INSTRUMENTAL ::
(A) choir : vocal (B) pianist : discordant
(C) trio : harmonic (D) singer : sacred
(E) band : martial
9. TROPHY : CONTESTANT :: (A) baton : runner
(B) pride : parent (C) book : bibliography
(D) loan : cashier (E) honors : student
10. LISTENER : EAVESDROPPER ::
(A) spectator : game (B) viewer : gazer
(C) observer : spy (D) speaker : chatterbox
(E) leader : demagogue
11. FIDGET : NERVOUSNESS :: (A) cringe : dread
(B) stall : frustration (C) regale : amusement
(D) doubt : consternation (E) nag : annoyance
12. DORMANT : INACTIVITY ::
(A) stark : ornateness (B) malleable : plasticity
(C) prone : uprightness (D) infuriating : tedium
(E) slack : excess

13. WAFT : PLUMMET :: (A) skim : glide
(B) dream : captivate (C) toss : catch
(D) flail : assault (E) meander : dash
14. PRUDISH : PROPRIETY ::
(A) fanatical : violence
(B) authoritative : evidence
(C) finicky : quality
(D) obstinate : accuracy
(E) fearful : comfort
15. POSEUR : SINCERITY :: (A) brat : insolence
(B) flirt : decency (C) grouch : patience
(D) recluse : gregariousness (E) rogue : empathy
16. MORALISTIC : PRINCIPLED ::
(A) simplistic : unsophisticated
(B) pedantic : learned
(C) positivistic : empirical
(D) dogmatic : prejudiced
(E) fantastic : imaginative

GO ON TO THE NEXT PAGE.

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.

Historically, a cornerstone of classical empiricism has been the notion that every true generalization must be confirmable by specific observations. In classical empiricism, the truth of "All balls are red," for example, is assessed by inspecting balls; any observation of a *non* red ball refutes unequivocally the proposed generalization.

For W.V.O. Quine, however, this constitutes an overly "narrow" conception of empiricism. "All balls are red," he maintains, forms one strand within an entire web of statements (our knowledge); individual observations can be referred only to this web as a whole. As new observations are collected, he explains, they must be integrated into the web. Problems occur only if a contradiction develops between a new observation, say, "That ball is blue," and the preexisting statements. In that case, he argues, *any* statement or combination of statements (not merely the "offending" generalization, as in classical empiricism) can be altered to achieve the fundamental requirement, a system free of contradictions, even if, in some cases, the alteration consists of labeling the new observation a "hallucination."

17. The author of the passage is primarily concerned with presenting

- (A) criticisms of Quine's views on the proper conceptualization of empiricism
- (B) evidence to support Quine's claims about the problems inherent in classical empiricism
- (C) an account of Quine's counterproposal to one of the traditional assumptions of classical empiricism
- (D) an overview of classical empiricism and its contributions to Quine's alternate understanding of empiricism
- (E) a history of classical empiricism and Quine's reservations about it

18. According to Quine's conception of empiricism, if a new observation were to contradict some statement already within our system of knowledge, which of the following would be true?

- (A) The new observation would be rejected as untrue.
- (B) Both the observation and the statement in our system that it contradicted would be discarded.
- (C) New observations would be added to our web of statements in order to expand our system of knowledge.
- (D) The observation or some part of our web of statements would need to be adjusted to resolve the contradiction.
- (E) An entirely new field of knowledge would be created.

19. As described in the passage, Quine's specific argument against classical empiricism would be most strengthened if he did which of the following?

- (A) Provided evidence that many observations are actually hallucinations.
- (B) Explained why new observations often invalidate preexisting generalizations.
- (C) Challenged the mechanism by which specific generalizations are derived from collections of particular observations.
- (D) Mentioned other critics of classical empiricism and the substance of their approaches.
- (E) Gave an example of a specific generalization that has not been invalidated despite a contrary observation.

20. It can be inferred from the passage that Quine considers classical empiricism to be "overly narrow" (lines 7-8) for which of the following reasons?

- I. Classical empiricism requires that our system of generalizations be free of contradictions.
 - II. Classical empiricism demands that in the case of a contradiction between an individual observation and a generalization, the generalization must be abandoned.
 - III. Classical empiricism asserts that every observation will either confirm an existing generalization or initiate a new generalization.
- (A) II only
 - (B) I and II only
 - (C) I and III only
 - (D) II and III only
 - (E) I, II, and III

GO ON TO THE NEXT PAGE.

- Line
 (15) Until recently astronomers have been puzzled by the fate of red giant and supergiant stars. When the core of a giant star whose mass surpasses 1.4 times the present mass of our Sun (M_{\odot}) exhausts its nuclear fuel, it is unable to support its own weight and collapses into a tiny neutron star. The gravitational energy released during this implosion of the core blows off the remainder of the star in a gigantic explosion, or a supernova. Since around 50 percent of all stars are believed to begin their lives with masses greater than $1.4 M_{\odot}$, we might expect that one out of every two stars would die as a supernova. But in fact, only one star in thirty dies such a violent death. The rest expire much more peacefully as planetary nebulae. Apparently most massive stars manage to lose sufficient material that their masses drop below the critical value of $1.4 M_{\odot}$ before they exhaust their nuclear fuel.
- Evidence supporting this view comes from observations of IRC + 10216, a pulsating giant star located 700 light-years away from Earth. A huge rate of mass loss ($1 M_{\odot}$ every 10,000 years) has been deduced from infrared observations of ammonia (NH_3) molecules located in the circumstellar cloud around IRC + 10216. Recent microwave observations of carbon monoxide (CO) molecules indicate a similar rate of mass loss and demonstrate that the escaping material extends outward from the star for a distance of at least one light-year. Because we know the size of the cloud around IRC + 10216 and can use our observations of either NH_3 or CO to measure the outflow velocity, we can calculate an age for the circumstellar cloud. IRC + 10216 has apparently expelled, in the form of molecules and dust grains, a mass equal to that of our entire Sun within the past ten thousand years. This implies that some stars can shed huge amounts of matter very quickly and thus may never expire as supernovas. Theoretical models as well as statistics on supernovas and planetary nebulae suggest that stars that begin their lives with masses around $6 M_{\odot}$ shed sufficient material to drop below the critical value of $1.4 M_{\odot}$. IRC + 10216, for example, should do this in a mere 50,000 years from its birth, only an instant in the life of a star.
- But what place does IRC + 10216 have in stellar evolution? Astronomers suggest that stars like IRC + 10216 are actually "protoplanetary nebulae"—old giant stars whose dense cores have almost but not quite rid themselves of the fluffy envelopes of gas around them. Once the star has lost the entire envelope, its exposed core becomes the central star of the planetary nebula and heats and ionizes the last vestiges of the envelope as it flows away into space. This configuration is a full-fledged planetary nebula, long familiar to optical astronomers.
- (10)
- (15)
- (20)
- (25)
- (30)
- (35)
- (40)
- (45)
21. The primary purpose of the passage is to
- offer a method of calculating the age of circumstellar clouds
 - describe the conditions that result in a star's expiring as a supernova
 - discuss new evidence concerning the composition of planetary nebulae
 - explain why fewer stars than predicted expire as supernovas
 - survey conflicting theories concerning the composition of circumstellar clouds
22. The passage implies that at the beginning of the life of IRC + 10216, its mass was approximately
- $7.0 M_{\odot}$
 - $6.0 M_{\odot}$
 - $5.0 M_{\odot}$
 - $1.4 M_{\odot}$
 - $1.0 M_{\odot}$
23. The view to which line 18 refers serves to
- reconcile seemingly contradictory facts
 - undermine a previously held theory
 - take into account data previously held to be insignificant
 - resolve a controversy
 - question new methods of gathering data
24. It can be inferred from the passage that the author assumes which of the following in the discussion of the rate at which IRC + 10216 loses mass?
- The circumstellar cloud surrounding IRC + 10216 consists only of CO and NH_3 molecules.
 - The circumstellar cloud surrounding IRC + 10216 consists of material expelled from that star.
 - The age of a star is equal to that of its circumstellar cloud.
 - The rate at which IRC + 10216 loses mass varies significantly from year to year.
 - Stars with a mass greater than $6 M_{\odot}$ lose mass at a rate faster than stars with a mass less than $6 M_{\odot}$ do.

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25. According to information provided by the passage, which of the following stars would astronomers most likely describe as a planetary nebula?
- (A) A star that began its life with a mass of $5.5 M_{\odot}$, has exhausted its nuclear fuel, and has a core that is visible to astronomers
- (B) A star that began its life with a mass of $6 M_{\odot}$, lost mass at a rate of $1 M_{\odot}$ per 10,000 years, and exhausted its nuclear fuel in 40,000 years
- (C) A star that has exhausted its nuclear fuel, has a mass of $1.2 M_{\odot}$, and is surrounded by a circumstellar cloud that obscures its core from view
- (D) A star that began its life with a mass greater than $6 M_{\odot}$, has just recently exhausted its nuclear fuel, and is in the process of releasing massive amounts of gravitational energy
- (E) A star that began its life with a mass of $5.5 M_{\odot}$, has yet to exhaust its nuclear fuel, and exhibits a rate of mass loss similar to that of IRC + 10216
26. Which of the following statements would be most likely to follow the last sentence of the passage?
- (A) Supernovas are not necessarily the most spectacular events that astronomers have occasion to observe.
- (B) Apparently, stars that have a mass of greater than $6 M_{\odot}$ are somewhat rare.
- (C) Recent studies of CO and NH₃ in the circumstellar clouds of stars similar to IRC + 10216 have led astronomers to believe that the formation of planetary nebulas precedes the development of supernovas.
- (D) It appears, then, that IRC + 10216 actually represents an intermediate step in the evolution of a giant star into a planetary nebula.
- (E) Astronomers have yet to develop a consistently accurate method for measuring the rate at which a star exhausts its nuclear fuel.
27. Which of the following titles best summarizes the content of the passage?
- (A) New Methods of Calculating the Age of Circumstellar Clouds
- (B) New Evidence Concerning the Composition of Planetary Nebulas
- (C) Protoplanetary Nebula: A Rarely Observed Phenomenon
- (D) Planetary Nebulas: An Enigma to Astronomers
- (E) The Diminution of a Star's Mass: A Crucial Factor in Stellar Evolution

GO ON TO THE NEXT PAGE.

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. SEND: (A) drop (B) lift (C) attempt
(D) receive (E) locate
29. INTERLOCKING: (A) independent
(B) internal (C) peripheral
(D) sequential (E) variable
30. REFLECT: (A) diffuse (B) polarize
(C) absorb (D) focus (E) propagate
31. LACKLUSTER: (A) necessary (B) descriptive
(C) radiant (D) organized (E) mature
32. ZENITH: (A) shortest line (B) furthest edge
(C) lowest point (D) roughest curve
(E) smallest surface
33. ENGENDER: (A) enumerate (B) emulate
(C) exculpate (D) eradicate (E) encapsulate

34. ANOMALOUS:
(A) veracious
(B) precise
(C) essential
(D) conforming to an established rule
(E) proceeding in a timely fashion
35. GRIEVOUS: (A) slight (B) stereotyped
(C) solicitous (D) sophisticated (E) sparkling
36. PRECIPITATE: (A) desperate (B) determined
(C) dissident (D) deliberate (E) divided
37. PROLIXITY: (A) intense devotion
(B) vehement protest (C) serious offense
(D) exact measurement (E) extreme brevity
38. DISABUSE: (A) afflict with pain
(B) lead into error (C) force into exile
(D) remove from grace (E) free from obligation

FOR GENERAL TEST 9 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 2		Section 4			
Number	Answer	P +	Number	Answer	P +
1	A	85	1	A	95
2	D	71	2	A	79
3	B	74	3	C	79
4	E	59	4	B	64
5	E	51	5	C	45
6	B	40	6	E	58
7	B	37	7	E	50
8	C	83	8	A	90
9	E	87	9	A	28
10	D	54	10	C	83
11	E	58	11	A	58
12	B	42	12	B	54
13	D	35	13	C	57
14	D	44	14	A	48
15	D	28	15	D	38
16	E	11	16	B	31
17	C	64	17	B	63
18	A	84	18	C	61
19	D	79	19	E	45
20	E	90	20	A	14
21	A	74	21	D	61
22	D	38	22	B	65
23	B	53	23	B	40
24	E	47	24	B	49
25	A	57	25	A	22
26	A	49	26	D	61
27	B	57	27	D	47
28	A	77	28	D	94
29	C	78	29	A	88
30	A	79	30	C	76
31	B	73	31	C	79
32	D	56	32	D	75
33	E	38	33	D	51
34	C	33	34	D	44
35	D	35	35	A	32
36	E	34	36	D	26
37	A	22	37	E	33
38	A	29	38	B	15

QUANTITATIVE ABILITY					
Section 3		Section 5			
Number	Answer	P +	Number	Answer	P +
1	C	88	1	B	81
2	B	83	2	C	85
3	B	81	3	B	81
4	A	84	4	B	81
5	A	87	5	A	89
6	A	71	6	A	87
7	B	74	7	C	87
8	A	78	8	D	68
9	A	77	9	A	72
10	D	59	10	B	65
11	D	52	11	D	67
12	D	44	12	A	63
13	D	53	13	C	50
14	D	33	14	C	49
15	D	29	15	B	30
16	C	88	16	D	85
17	A	78	17	B	77
18	A	64	18	C	74
19	A	64	19	D	71
20	C	64	20	C	57
21	D	87	21	C	79
22	A	83	22	C	75
23	D	63	23	C	40
24	D	59	24	D	42
25	E	38	25	B	35
26	E	52	26	A	53
27	E	48	27	C	59
28	E	43	28	B	52
29	E	33	29	B	32
30	E	28	30	B	49

ANALYTICAL ABILITY					
Section 1		Section 6			
Number	Answer	P +	Number	Answer	P +
1	C	78	1	B	81
2	B	78	2	C	74
3	D	60	3	E	86
4	C	51	4	E	69
5	D	55	5	E	78
6	A	28	6	C	87
7	D	93	7	D	65
8	D	62	8	C	77
9	A	45	9	A	79
10	A	91	10	C	47
11	E	65	11	B	68
12	E	29	12	A	68
13	D	28	13	C	37
14	D	54	14	A	62
15	C	64	15	B	39
16	B	44	16	B	48
17	E	19	17	A	13
18	E	62	18	B	51
19	B	56	19	D	61
20	D	49	20	C	35
21	B	56	21	E	51
22	E	31	22	E	44
23	D	50	23	D	33
24	E	40	24	B	31
25	E	42	25	B	31

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 10

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. It was a war the queen and her more prudent counselors wished to — if they could and were determined in any event to — as long as possible.
(A) provoke..delay
(B) denounce..deny
(C) instigate..conceal
(D) curtail..promote
(E) avoid..postpone
2. Despite many decades of research on the gasification of coal, the data accumulated are not directly — to environmental questions; thus a new program of research specifically addressing such questions is —.
(A) analogous..promising
(B) transferable..contradictory
(C) antithetical..unremarkable
(D) applicable..warranted
(E) pertinent..unnecessary
3. Unlike other creatures, who are shaped largely by their — environment, human beings are products of a culture accumulated over centuries, yet one that is constantly being — by massive infusions of new information from everywhere.
(A) harsh..unconfirmed
(B) surrounding..upheld
(C) immediate..transformed
(D) natural..mechanized
(E) limited..superseded
4. Edith Wharton sought in her memoir to present herself as having achieved a harmonious wholeness by having — the conflicting elements of her life.
(A) affirmed
(B) highlighted
(C) reconciled
(D) confined
(E) identified
5. In their preface, the collection's editors plead that certain of the important articles they — were published too recently for inclusion, but in the case of many such articles, this — is not valid.
(A) discussed..replacement
(B) omitted..excuse
(C) revised..clarification
(D) disparaged..justification
(E) ignored..endorsement
6. The labor union and the company's management, despite their long history of unfailingly acerbic disagreement on nearly every issue, have nevertheless reached an unexpectedly —, albeit still tentative, agreement on next year's contract.
(A) swift
(B) onerous
(C) hesitant
(D) reluctant
(E) conclusive
7. In response to the follies of today's commercial and political worlds, the author does not — inflamed indignation, but rather — the detachment and smooth aphoristic prose of an eighteenth-century wit.
(A) display..rails at
(B) rely on..avoids
(C) suppress..clings to
(D) express..affects
(E) resort to..spurns

GO ON TO THE NEXT PAGE.

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. FEAR : COWER ::

- (A) calmness : fret
- (B) anger : rant
- (C) disappointment : console
- (D) gladness : satisfy
- (E) embarrassment : speak

9. BACTERIA : DECOMPOSITION ::

- (A) lava : eruption
- (B) penicillin : injection
- (C) yeast : fermentation
- (D) oxygen : respiration
- (E) plants : deforestation

10. PALATE : MOUTH ::

- (A) curb : sidewalk
- (B) star : sky
- (C) stream : dam
- (D) mountain : range
- (E) ceiling : room

11. SLAKE : THIRST ::

- (A) perspic : exertion
- (B) voice : voice
- (C) shiver : muscle
- (D) satiate : hunger
- (E) dream : sleep

12. FOIBLE : FAULT ::

- (A) perjury : testimony
- (B) reputation : disrepute
- (C) vagary : notion
- (D) feud : hostility
- (E) quibble : objection

13. IMPORTUNE : REQUEST ::

- (A) pry : inquiry
- (B) balk : obstacle
- (C) fulminate : silence
- (D) discomfiture : plea
- (E) vitiate : punishment

14. MILL : GRAIN ::

- (A) loom : cloth
- (B) bazaar : wares
- (C) factory : furniture
- (D) hospital : medicine
- (E) forge : metal

15. DAGUERREOTYPE : PHOTOGRAPH ::

- (A) bust : statue
- (B) pastiche : painting
- (C) narrative : novel
- (D) hieroglyphic : papyrus
- (E) musket : firearm

16. INDISTINGUISHABLE : CONFOUND ::

- (A) exceptional : overlook
- (B) impregnable : attack
- (C) ostentatious : consume
- (D) equivalent : interchange
- (E) occluded : reveal

GO ON TO THE NEXT PAGE.

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.

Line
(5) The 1960's witnessed two profound social movements: the civil rights movement and the movement protesting the war in Vietnam. Although they overlapped in time, they were largely distinct. For a brief moment in 1967, however, it appeared that the two movements might unite under the leadership of Martin Luther King, Jr.

(10) King's role in the antiwar movement appears to require little explanation, since he was the foremost advocate of nonviolence of his time. But King's stance on the Vietnam War cannot be explained in terms of pacifism alone. After all, he was something of a late-comer to the antiwar movement, even though by 1965 he was convinced that the role of the United States in the war was indefensible. Why then the two years that passed before he translated his private misgivings into public dissent? Perhaps he believed that he could not criticize American foreign policy without endangering the support for civil rights that he had won from the federal government.

17. According to the passage, the delay referred to in lines 12-15 is perhaps attributable to which of the following?
- (A) King's ambivalence concerning the role of the United States in the war in Vietnam
 - (B) King's attempts to consolidate support for his leadership within the civil rights movement
 - (C) King's desire to keep the leadership of the civil rights movement distinct from that of the antiwar movement
 - (D) King's desire to draw support for the civil rights movement from the leadership of the antiwar movement
 - (E) King's reluctance to jeopardize federal support for the civil rights movement

18. The author supports the claim that "King's stance on the Vietnam War cannot be explained in terms of pacifism alone" (lines 10-12) by implying which of the following?
- (A) There is little evidence that King was ever a student of pacifist doctrine.
 - (B) King, despite pacifist sympathies, was not convinced that the policy of the federal government in Vietnam was wrong.
 - (C) King's belief in nonviolence was formulated in terms of domestic policy rather than in terms of international issues.
 - (D) Had King's actions been based on pacifism alone, he would have joined the antiwar movement earlier than he actually did.
 - (E) Opponents of United States foreign policy within the federal government convinced King of their need for support.
19. Which of the following can be inferred from the passage about the movement opposing the war in Vietnam?
- (A) It preceded the civil rights movement.
 - (B) It began in 1965.
 - (C) It was supported by many who otherwise opposed public dissent.
 - (D) It drew support from most civil rights leaders.
 - (E) It was well underway by 1967.
20. Which of the following best describes the passage?
- (A) It discusses an apparent inconsistency and suggests a reason for it.
 - (B) It outlines a sequence of historical events.
 - (C) It shows why a commonly held view is inaccurate.
 - (D) It evaluates an explanation and finally accepts that explanation.
 - (E) It contrasts two views of an issue.

GO ON TO THE NEXT PAGE.

Line (15) What causes a helix in nature to appear with either a dextral ("right-handed," or clockwise) twist or a sinistral ("left-handed," or counterclockwise) twist is one of the most intriguing puzzles in the science of form. Most spiral-shaped snail species are predominantly dextral. But at one time, handedness (twist direction of the shell) was equally distributed within some snail species that have become predominantly dextral or, in a few species, predominantly sinistral. What mechanisms control handedness and keep left-handedness rare?

(10) It would seem unlikely that evolution should discriminate against sinistral snails if sinistral and dextral snails are exact mirror images, for any disadvantage that a sinistral twist in itself could confer on its possessor is almost inconceivable. But left- and right-handed snails (15) are not actually true mirror images of one another. Their shapes are noticeably different. Sinistral rarity might, then, be a consequence of possible disadvantages conferred by these other concomitant structural features.

(20) In addition, perhaps left- and right-handed snails cannot mate with each other, having incompatible twist directions. Presumably an individual of the rarer form would have relative difficulty in finding a mate of the same hand, thus keeping the rare form rare or creating (25) geographically separated right- and left-handed populations.

(30) But this evolutionary mechanism combining dissymmetry, anatomy, and chance does not provide an adequate explanation of why right-handedness should have become predominant. It does not explain, for example, why the infrequent unions between snails of opposing hands produce fewer offspring of the rarer than the commoner form in species where each parent contributes equally to handedness. Nor does it explain (35) why, in a species where one parent determines handedness, a brood is not exclusively right- or left-handed when the offspring would have the same genetic predisposition. In the European pond snail *Lymnaea peregra*, a predominantly dextral species whose handedness is (40) maternally determined, a brood might be expected to be exclusively right- or left-handed—and this often occurs. However, some broods possess a few snails of the opposing hand, and in predominantly sinistral broods, the incidence of dextrality is surprisingly high.

(45) Here, the evolutionary theory must defer to a theory based on an explicit developmental mechanism that can favor either right- or left-handedness. In the case of *Lymnaea peregra*, studies indicate that a dextral gene is expressed during egg formation; i.e., before egg fertilization, the gene produces a protein, found in the cytoplasm of the egg, that controls the pattern of cell division and thus handedness. In experiments, an injection of cytoplasm from dextral eggs changes the pattern of sinistral eggs, but an injection from sinistral eggs does (50) not influence dextral eggs. One explanation for the differing effects is that all *Lymnaea peregra* eggs begin left-handed but most switch to being right-handed. Thus, the path to a solution to the puzzle of handedness in all snails appears to be as twisted as the helix itself.

21. Which of the following would serve as an example of "concomitant structural features" (line 19) that might disadvantage a snail of the rarer form?
- (A) A shell and body that are an exact mirror image of a snail of the commoner form
(B) A smaller population of the snails of the rarer form
(C) A chip or fracture in the shell caused by an object falling on it
(D) A pattern on the shell that better camouflages it
(E) A smaller shell opening that restricts mobility and ingestion relative to that of a snail of the commoner form
22. The second paragraph of the passage is primarily concerned with offering possible reasons why
- (A) it is unlikely that evolutionary mechanisms could discriminate against sinistral snails
(B) sinistrality is relatively uncommon among snail species
(C) dextral and sinistral populations of a snail species tend to intermingle
(D) a theory based on a developmental mechanism inadequately accounts for the predominance of dextrality across snail species
(E) dextral snails breed more readily than sinistral snails, even within predominantly sinistral populations
23. In describing the "evolutionary mechanism" (line 27), the author mentions which of the following?
- (A) The favorable conditions for nurturing new offspring
(B) The variable environmental conditions that affect survival of adult snails
(C) The availability of potential mates for breeding
(D) The structural identity of offspring to parents of the same hand
(E) The frequency of unions between snails of different species

GO ON TO THE NEXT PAGE.

24. According to the passage, which of the following is true of *Lymnaea peregra*?
- (A) Handedness within the species was at one time equally distributed between left and right.
 - (B) Under laboratory conditions, dextral eggs from *Lymnaea peregra* can be artificially induced to develop into sinistral snails.
 - (C) Broods of *Lymnaea peregra* are, without variation, exclusively sinistral or dextral.
 - (D) Handedness in *Lymnaea peregra* offspring is determined by only one of the parents.
 - (E) Geographic factors have played a larger role than genetics in the evolution of the species.
25. The passage implies that in *Lymnaea peregra*, there will generally be
- (A) more offspring of the nondominant hand in broods where handedness is determined after, rather than before, fertilization
 - (B) a sinistral gene that produces a protein in the cytoplasm of the egg cell
 - (C) fewer sinistral offspring in dextral broods than dextral offspring in sinistral broods
 - (D) equal numbers of exclusively left- and right-handed broods
 - (E) an increasing occurrence of left-handedness in successive broods
26. It can be inferred from the passage that a predominantly sinistral snail species might stay predominantly sinistral for each of the following reasons EXCEPT for
- (A) a developmental mechanism that affects the cell-division pattern of snails
 - (B) structural features that advantage dextral snails of the species
 - (C) a relatively small number of snails of the same hand for dextral snails of the species to mate with
 - (D) anatomical incompatibility that prevents mating between snails of opposing hands within the species
 - (E) geographic separation of sinistral and dextral populations
27. Which of the following accurately describes the relationship between the evolutionary and developmental theories discussed in the passage?
- (A) Although the two theories reach the same conclusion, each is based on different assumptions.
 - (B) They present contradictory explanations of the same phenomenon.
 - (C) The second theory accounts for certain phenomena that the first cannot explain.
 - (D) The second theory demonstrates why the first is valid only for very unusual, special cases.
 - (E) They are identical and interchangeable in that the second theory merely restates the first in less technical terms.

GO ON TO THE NEXT PAGE.

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. IMPERMEABLE: (A) sandy (B) resilient
(C) blunt (D) sticky (E) porous
29. SERRATED: (A) dull (B) smooth
(C) random (D) fragile (E) tarnished
30. INGRATE: (A) thankful person
(B) polite person (C) friendly person
(D) witty person (E) well-educated person
31. COALESCED: (A) spread rapidly
(B) heated quickly (C) broken apart
(D) uncovered (E) soaked
32. EFFRONTERY: (A) skepticism (B) serenity
(C) timidity (D) conformity (E) impartiality

33. LACONIC: (A) stylized (B) unedited
(C) insincere (D) verbose (E) outgoing
34. HEGEMONY: (A) lack of authority
(B) lack of energy (C) lack of precision
(D) lack of confidence (E) lack of awareness
35. PIQUE: (A) poke fun at (B) give hope to
(C) neglect (D) mollify (E) dissuade
36. SUPPLICATE: (A) misrepresent (B) demand
(C) evade (D) vacillate (E) discourage
37. ENERVATE: (A) grant permission
(B) provide assistance (C) make restitution
(D) irritate (E) fortify
38. VERISIMILAR: (A) implausible
(B) digressing (C) monotonous
(D) unusual (E) unique

SECTION 4

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. Vaillant, who has been particularly interested in the means by which people attain mental health, seems to be looking for —— answers: a way to close the book on at least a few questions about human nature.
(A) definitive
(B) confused
(C) temporary
(D) personal
(E) derivative
2. The well-trained engineer must understand fields as diverse as physics, economics, geology, and sociology; thus, an overly —— engineering curriculum should be avoided.
(A) narrow
(B) innovative
(C) competitive
(D) rigorous
(E) academic
3. Although supernovas are among the most —— of cosmic events, these stellar explosions are often hard to ——, either because they are enormously far away or because they are dimmed by intervening dust and gas clouds.
(A) remote..observe
(B) luminous..detect
(C) predictable..foresee
(D) ancient..determine
(E) violent..disregard
4. During the widespread fuel shortage, the price of gasoline was so —— that suppliers were generally thought to be —— the consumer.
(A) reactive..shielding
(B) stable..blackmailing
(C) depressed..cheating
(D) prohibitive..placating
(E) excessive..gouging
5. Art —— science, but that does not mean that the artist must also be a scientist; an artist uses the fruits of science but need not —— the theories from which they derive.
(A) precedes..anticipate
(B) incorporates..understand
(C) transcends..abandon
(D) imitates..repudiate
(E) resembles..contest
6. Imposing steep fines on employers for on-the-job injuries to workers could be an effective —— to creating a safer workplace, especially in the case of employers with poor safety records.
(A) antidote
(B) alternative
(C) addition
(D) deterrent
(E) incentive
7. Literature is inevitably a —— rather than —— medium for the simple reason that writers interpose their own vision between the reader and reality.
(A) distorting..a neutral
(B) transparent..an opaque
(C) colorful..a drab
(D) flawless..an inexact
(E) flexible..a rigid

GO ON TO THE NEXT PAGE.

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. SCRIBBLE : WRITE ::

- (A) limp : walk
- (B) draw : print
- (C) mumble : talk
- (D) float : swim
- (E) say : sing

9. DETOXIFICATION : POISON ::

- (A) surge : current
- (B) diet : reduction
- (C) refinement : ore
- (D) adjustment : focus
- (E) neutralization : acid

10. GRAVEL : PEBBLE ::

- (A) river : water
- (B) seasoning : salt
- (C) crowd : person
- (D) legislature : bill
- (E) typewriter : key

11. STOCKADE : ENCLOSURE ::

- (A) moat : bridge
- (B) doorway : wall
- (C) brick : building
- (D) pillar : support
- (E) keyhole : lock

12. SEDATIVE : PACIFY ::

- (A) scalpel : cauterize
- (B) analgesic : discomfit
- (C) surgery : operate
- (D) antiseptic : sterilize
- (E) stimulant : induce

13. AUTHORITATIVE : ACCEPTANCE ::

- (A) conspicuous : attention
- (B) nebulous : validation
- (C) congruous : appropriation
- (D) maudlin : passion
- (E) tangible : substance

14. ALACRITY : PROMPT ::

- (A) service : kind
- (B) aggravation : temperamental
- (C) intuition : impulsive
- (D) acumen : shrewd
- (E) sentiment : thoughtful

15. UNDERSCORE : EMPHASIS ::

- (A) eradicate : destruction
- (B) stigmatize : confrontation
- (C) quantify : assessment
- (D) brand : ownership
- (E) log : record

16. PREEMINENCE : IMPORTANCE ::

- (A) predestination : belief
- (B) prefiguration : reality
- (C) premeditation : execution
- (D) predisposition : preference
- (E) preponderance : weight

GO ON TO THE NEXT PAGE.

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.

Recently some scientists have concluded that meteorites found on Earth and long believed to have a Martian origin might actually have been blasted free of Mars's gravity by the impact on Mars of other meteorites. This conclusion has led to another question: whether meteorite impacts on Earth have similarly driven rocks from this planet to Mars.

According to astronomer S.A. Phinney, kicking a rock hard enough to free it from Earth's gravity would require a meteorite capable of making a crater more than 60 miles across. Moreover, even if Earth rocks were freed by meteorite impact, Mars's orbit is much larger than Earth's, so Phinney estimates that the probability of these rocks hitting Mars is about one-tenth as great as that of Mars's rocks hitting Earth. To demonstrate this estimate, Phinney used a computer to calculate where 1,000 hypothetical particles would go if ejected from Earth in random directions. He found that 17 of the 1,000 particles would hit Mars.

17. The passage is primarily concerned with

- (A) presenting an argument to support a particular hypothesis
- (B) suggesting an answer to a theoretical question
- (C) questioning the assumptions of a research project
- (D) criticizing experimental results
- (E) explaining the origin of certain scientific data

18. According to the passage, which of the following events may have initiated the process that led to the presence on Earth of meteorites from Mars?

- (A) A meteorite struck the Earth with tremendous velocity.
- (B) A meteorite collided with Mars.
- (C) Approximately 1,000 rocks were ejected from Mars.
- (D) The orbits of Earth and Mars brought the planets to their closest points.
- (E) Rocks from a meteorite impact broke free of Earth's gravity.

19. The passage suggests that which of the following is true concerning the probability that a rock, if ejected from Mars, will hit the Earth?

- (A) The probability is increased when particles are ejected from Mars in random directions.
- (B) The probability is increased by the presence of large craters on the surface of Mars.
- (C) The probability is decreased when Mars's orbit brings the planet close to Earth.
- (D) The probability is greater than the probability that a rock from Earth will hit Mars.
- (E) The probability is less than the probability that a rock from Earth will escape Earth's gravity.

20. Which of the following, if true, would cast most doubt on Phinney's estimate of the probability of Earth rocks hitting Mars?

- (A) Rather than going in random directions, about 25 percent of all particles ejected from Earth go in the same direction into space.
- (B) Approximately 100 meteorites large enough to make a noticeable crater hit the Earth each year.
- (C) No rocks of Earth origin have been detected on Mars.
- (D) The velocity of rocks escaping from Earth's gravity is lower than the velocity of meteorites hitting the Earth.
- (E) No craters more than 60 miles across have been found on Mars.

GO ON TO THE NEXT PAGE.

- Line
- (15) A "scientific" view of language was dominant among philosophers and linguists who affected to develop a scientific analysis of human thought and behavior in the early part of this century. Under the force of this view, it was perhaps inevitable that the art of rhetoric should pass from the status of being regarded as of questionable worth (because although it might be both a source of pleasure and a means to urge people to right action, it might also be a means to distort truth and a source of misguided action) to the status of being wholly condemned. If people are regarded only as machines guided by logic, as they were by these "scientific" thinkers, rhetoric is likely to be held in low regard; for the most obvious truth about rhetoric is that it speaks to the whole person. It presents its arguments first to the person as a rational being, because persuasive discourse, if honestly conceived, always has a basis in reasoning. Logical argument is the plot, as it were, of any speech or essay that is respectfully intended to persuade people. Yet it is a characterizing feature of rhetoric that it goes beyond this and appeals to the parts of our nature that are involved in feeling, desiring, acting, and suffering. It recalls relevant instances of the emotional reactions of people to circumstances—real or fictional—that are similar to our own circumstances. Such is the purpose of both historical accounts and fables in persuasive discourse: they indicate literally or symbolically how people may react emotionally, with hope or fear, to particular circumstances. A speech attempting to persuade people can achieve little unless it takes into account the aspect of their being related to such hopes and fears.
- (35) Rhetoric, then, is addressed to human beings living at particular times and in particular places. From the point of view of rhetoric, we are not merely logical thinking machines, creatures abstracted from time and space. The study of rhetoric should therefore be considered the most humanistic of the humanities, since rhetoric is not directed only to our rational selves. It takes into account what the "scientific" view leaves out. If it is a weakness to harbor feelings, then rhetoric may be thought of as dealing in weakness. But those who reject the idea of rhetoric because they believe it deals in lies and who at the same time hope to move people to action, must either be liars themselves or be very naïve; pure logic has never been a motivating force unless it has been subordinated to human purposes, feelings, and desires, and thereby ceased to be pure logic.
- (10) (20) (25) (30) (35)
21. According to the passage, to reject rhetoric and still hope to persuade people is
- an aim of most speakers and writers
 - an indication either of dishonesty or of credulity
 - a way of displaying distrust of the audience's motives
 - a characteristic of most humanistic discourse
 - a way of avoiding excessively abstract reasoning
22. It can be inferred from the passage that in the late nineteenth century rhetoric was regarded as
- the only necessary element of persuasive discourse
 - a dubious art in at least two ways
 - an outmoded and tedious amplification of logic
 - an open offense to the rational mind
 - the most important of the humanistic studies
23. The passage suggests that the disparagement of rhetoric by some people can be traced to their
- reaction against science
 - lack of training in logic
 - desire to persuade people as completely as possible
 - misunderstanding of the use of the term "scientific"
 - view of human motivation
24. The passage suggests that a speech that attempts to persuade people to act is likely to fail if it does NOT
- distort the truth a little to make it more acceptable to the audience
 - appeal to the self-interest as well as the humanitarism of the audience
 - address listeners' emotions as well as their intellects
 - concede the logic of other points of view
 - show how an immediately desirable action is consistent with timeless principles
25. The passage suggests that to consider people as "thinking machines" (line 37) is to consider them as
- beings separated from a historical context
 - replaceable parts of a larger social machine
 - more complex than other animals
 - liars rather than honest people
 - infallible in their reasoning

GO ON TO THE NEXT PAGE.

26. Which of the following persuasive devices is NOT used in the passage?
- (A) A sample of an actual speech delivered by an orator
 - (B) The contrast of different points of view
 - (C) The repetition of key ideas and expressions
 - (D) An analogy that seeks to explain logical argument
 - (E) Evaluative or judgmental words
27. Which of the following best states the author's main point about logical argument?
- (A) It is a sterile, abstract discipline, of little use in real life.
 - (B) It is an essential element of persuasive discourse, but only one such element.
 - (C) It is an important means of persuading people to act against their desires.
 - (D) It is the lowest order of discourse because it is the least imaginative.
 - (E) It is essential to persuasive discourse because it deals with universal truths.

GO ON TO THE NEXT PAGE.

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. FLAMBOYANT: (A) competent
(B) independent (C) aloof
(D) subdued (E) unafraid
29. REBUFF: (A) tease (B) defy
(C) meddle (D) welcome (E) challenge
30. ENRICH: (A) deplete (B) mitigate
(C) forfeit (D) extinguish (E) occlude
31. PRETERNATURAL: (A) constant
(B) protracted (C) factual (D) restrained
(E) ordinary
32. GERMANE: (A) domestic (B) sympathetic
(C) controversial (D) profound
(E) inappropriate
33. INTEGRITY: (A) extravagance
(B) incompleteness (C) subordinancy
(D) insufficiency (E) opposition
34. MENDACITY: (A) full supply
(B) loud response (C) impunity
(D) truthfulness (E) peculiarity
35. VITUPERATE: (A) restore (B) respect
(C) animate (D) praise (E) intensify
36. TEETOTALISM: (A) jingoism
(B) proclivity (C) intemperance
(D) intolerance (E) liberalism
37. REFULGENT: (A) lackluster (B) stiff
(C) plodding (D) distant (E) weary
38. PROPITIATE: (A) elate (B) pester
(C) incense (D) distract (E) forgive

FOR GENERAL TEST 10 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	E	94	1	A	93
2	D	88	2	A	88
3	C	82	3	B	86
4	C	80	4	E	95
5	B	71	5	B	85
6	A	59	6	E	75
7	D	38	7	A	51
8	B	88	8	C	89
9	C	85	9	E	87
10	M	81	10	C	74
11	D	71	11	D	68
12	A	48	12	D	73
13	A	48	13	A	45
14	M	43	14	D	39
15	M	34	15	D	28
16	D	30	16	E	21
17	M	74	17	B	56
18	M	71	18	B	76
19	M	65	19	D	82
20	A	71	20	A	51
21	M	40	21	B	65
22	M	30	22	B	35
23	C	31	23	E	51
24	C	58	24	C	76
25	C	50	25	A	50
26	B	26	26	A	84
27	C	45	27	B	60
28	B	84	28	D	91
29	B	82	29	D	77
30	A	72	30	A	90
31	C	64	31	E	53
32	C	51	32	E	40
33	D	41	33	B	42
34	A	38	34	D	42
35	D	34	35	D	33
36	B	31	36	C	35
37	A	25	37	A	33
38	A	19	38	C	23

QUANTITATIVE ABILITY					
Section 3			Section 7		
Number	Answer	P+	Number	Answer	P+
1	A	85	1	B	70
2	C	88	2	B	87
3	A	74	3	C	82
4	B	72	4	D	75
5	D	76	5	O	79
6	C	70	6	A	78
7	A	73	7	C	75
8	B	78	8	C	53
9	B	66	9	B	57
10	A	66	10	A	49
11	D	55	11	D	58
12	B	38	12	C	49
13	D	25	13	A	33
14	C	32	14	O	36
15	C	39	15	C	33
16	C	88	16	E	85
17	D	70	17	E	89
18	C	66	18	D	79
19	B	50	19	A	63
20	A	50	20	C	53
21	B	87	21	E	75
22	N	75	22	B	67
23	D	64	23	D	71
24	D	50	24	O	58
25	A	25	25	O	43
26	B	64	26	B	43
27	A	61	27	A	42
28	B	44	28	D	33
29	E	26	29	O	20
30	E	28	30	D	32

ANALYTICAL ABILITY					
Section 2			Section 6		
Number	Answer	P+	Number	Answer	P+
1	D	93	1	D	79
2	C	47	2	A	77
3	B	60	3	D	64
4	D	70	4	E	68
5	C	59	5	B	59
6	A	55	6	B	69
7	D	66	7	C	70
8	B	79	8	D	80
9	B	68	9	A	86
10	B	74	10	D	63
11	A	70	11	B	88
12	C	32	12	A	72
13	I	61	13	C	57
14	G	46	14	D	56
15	A	50	15	D	38
16	A	41	16	E	26
17	D	47	17	M	54
18	A	39	18	C	52
19	S	32	19	M	50
20	D	23	20	A	52
21	D	42	21	M	31
22	S	33	22	D	33
23	B	88	23	M	45
24	D	83	24	C	18
25	B	51	25	A	55

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

7 1/2 a.m. LUSKMT

SECTION 3

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. With its maverick approach to the subject, Shere Hite's book has been more widely debated than most; the media throughout the country have brought the author's —— opinions to the public's attention.
(A) controversial
(B) authoritative
(C) popular
(D) conclusive
(E) articulate
2. Though many medieval women possessed devotional books that had belonged to their mothers, formal written evidence of women bequeathing books to their daughters is scarce, which suggests that such bequests were —— and required no ——.
(A) unselfish..rationalization
(B) tangential..approval
(C) customary..documentation
(D) covert..discretion
(E) spurious..record
3. Although their initial anger had —— somewhat, they continued to —— the careless worker who had broken the machine.
(A) blazed..assail
(B) diminished..appease
(C) abated..berate
(D) subsided..condone
(E) intensified..torment
4. Borrowing a copyrighted book from a library amounts to a form of theft —— by entrenched custom: the copyright owner's property, the book, is used repeatedly without —— for such use.
(A) engendered..application
(B) anticipated..acknowledgment
(C) sanctioned..compensation
(D) provoked..adjustment
(E) perpetrated..permission
5. The notion that a parasite can alter the behavior of a host organism is not mere fiction; indeed, the phenomenon is not even ——.
(A) observable (B) real (C) comprehended
(D) rare (E) imaginable
6. Although Shakespeare received little formal education, scholarship has in recent years —— the view that he was —— the work of classical authors.
(A) substantiated..unimpressed by
(B) eroded..obsessed by
(C) supported..oblivious to
(D) questioned..influenced by
(E) undermined..unfamiliar with
7. Darwin's method did not really —— the idea of race as an important conceptual category; even the much more central idea of species was little more than a theoretical ——.
(A) require..convenience
(B) apply..measurement
(C) exclude..practice
(D) subsume..validation
(E) reject..fact

GO ON TO THE NEXT PAGE.

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. DENTURE : TEETH :: (A) scarf : head
(B) toupee : hair (C) fingernail : hand
(D) eyebrow : eye (E) bandage : wound
9. PROFESSIONAL : ROOKIE :: (A) player : fan
(B) ranger : cowhand (C) prisoner : thief
(D) soldier : recruit (E) conductor : musician
10. SCRIPT : PLAY :: (A) refrain : song
(B) assignment : course (C) score : symphony
(D) collection : story (E) debate : candidate
11. BUOYANT : SINK :: (A) frozen : melt
(B) liquid : evaporate (C) brittle : cleave
(D) insoluble : dissolve (E) gaseous : expand
12. CRAWL : PROCEED :: (A) plummet : descend
(B) nurture : grow (C) inundate : flood
(D) rampage : destroy (E) dwindle : decrease
13. ELEGY : SORROW ::
(A) paean : distress
(B) encomium : criticism
(C) requiem : euphoria
(D) tirade : joy
(E) eulogy : admiration
14. FRIEZE : ORNAMENT :: (A) arch : divide
(B) relief : form (C) arabesque : accentuate
(D) nave : border (E) pillar : support
15. DECELERATE : SPEED ::
(A) desiccate : dryness
(B) extinguish : oxygen
(C) interpolate : interval
(D) decontaminate : sterility
(E) enervate : vitality
16. DESPOTIC : TYRANNY ::
(A) authoritarian : superiority
(B) skillful : celebrity
(C) generous : liberality
(D) suspect : illegality
(E) peaceful : benevolence

GO ON TO THE NEXT PAGE.

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.

(The article from which the passage was taken appeared in 1982.)

Theorists are divided concerning the origin of the Moon. Some hypothesize that the Moon was formed in the same way as were the planets in the inner solar system (Mercury, Venus, Mars, and Earth)—from planet-forming materials in the presolar nebula. But, unlike the cores of the inner planets, the Moon's core contains little or no iron, while the typical planet-forming materials were quite rich in iron. Other theorists propose that the Moon was ripped out of the Earth's rocky mantle by the Earth's collision with another large celestial body after much of the Earth's iron fell to its core. One problem with the collision hypothesis is the question of how a satellite formed in this way could have settled into the nearly circular orbit that the Moon has today. Fortunately, the collision hypothesis is testable. If it is true, the mantlerocks of the Moon and the Earth should be the same geochemically.

- Line
15 (10) (15)
17. The primary purpose of the passage is to
- (A) present two hypotheses concerning the origin of the Moon
 - (B) discuss the strengths and weaknesses of the collision hypothesis concerning the origin of the Moon
 - (C) propose that hypotheses concerning the Moon's origin be tested
 - (D) argue that the Moon could not have been formed out of the typical planet-forming materials of the presolar nebula
 - (E) describe one reason why the Moon's geochemical makeup should resemble that of the Earth

18. According to the passage, Mars and the Earth are similar in which of the following ways?

- I. Their satellites were formed by collisions with other celestial bodies.
 - II. Their cores contain iron.
 - III. They were formed from the presolar nebula.
- (A) III only
 - (B) I and II only
 - (C) I and III only
 - (D) II and III only
 - (E) I, II, and III

19. The author implies that a nearly circular orbit is unlikely for a satellite that
- (A) circles one of the inner planets
 - (B) is deficient in iron
 - (C) is different from its planet geochemically
 - (D) was formed by a collision between two celestial bodies
 - (E) was formed out of the planet-forming materials in the presolar nebula
20. Which of the following, if true, would be most likely to make it difficult to verify the collision hypothesis in the manner suggested by the author?
- (A) The Moon's core and mantlerock are almost inactive geologically.
 - (B) The mantlerock of the Earth has changed in composition since the formation of the Moon, while the mantlerock of the Moon has remained chemically inert.
 - (C) Much of the Earth's iron fell to the Earth's core long before the formation of the Moon, after which the Earth's mantlerock remained unchanged.
 - (D) Certain of the Earth's elements, such as platinum, gold, and iridium, followed iron to the Earth's core.
 - (E) The mantlerock of the Moon contains elements such as platinum, gold, and iridium.

GO ON TO THE NEXT PAGE.

Surprisingly enough, modern historians have rarely interested themselves in the history of the American South in the period before the South began to become self-consciously and distinctively "Southern"—the decades after 1815. Consequently, the cultural history of Britain's North American empire in the seventeenth and eighteenth centuries has been written almost as if the Southern colonies had never existed. The American culture that emerged during the Colonial and Revolutionary eras has been depicted as having been simply an extension of New England Puritan culture. However, Professor Davis has recently argued that the South stood apart from the rest of American society during this early period, following its own unique pattern of cultural development. The case for Southern distinctiveness rests upon two related premises: first, that the cultural similarities among the five Southern colonies were far more impressive than the differences, and second, that what made those colonies alike also made them different from the other colonies. The first, for which Davis offers an enormous amount of evidence, can be accepted without major reservations; the second is far more problematic.

What makes the second premise problematic is the use of the Puritan colonies as a basis for comparison. Quite properly, Davis decries the excessive influence ascribed by historians to the Puritans in the formation of American culture. Yet Davis inadvertently adds weight to such ascriptions by using the Puritans as the standard against which to assess the achievements and contributions of Southern colonials. Throughout, Davis focuses on the important, and undeniable, differences between the Southern and Puritan colonies in motives for and patterns of early settlement, in attitudes toward nature and Native Americans, and in the degree of receptivity to metropolitan cultural influences.

However, recent scholarship has strongly suggested that those aspects of early New England culture that seem to have been most distinctly Puritan, such as the strong religious orientation and the communal impulse, were not even typical of New England as a whole, but were largely confined to the two colonies of Massachusetts and Connecticut. Thus, what in contrast to the Puritan colonies appears to Davis to be peculiarly Southern—acquisitiveness, a strong interest in politics and the law, and a tendency to cultivate metropolitan cultural models—was not only more typically English than the cultural patterns exhibited by Puritan Massachusetts and Connecticut, but also almost certainly characteristic of most other early modern British colonies from Barbados north to Rhode Island and New Hampshire. Within the larger framework of American colonial life, then, not the Southern but the Puritan colonies appear to have been distinctive, and even they seem to have been rapidly assimilating to the dominant cultural patterns by the late Colonial period.

- Line 5
(5) 21. The author is primarily concerned with
- (A) refuting a claim about the influence of Puritan culture on the early American South
(B) refuting a thesis about the distinctiveness of the culture of the early American South
(C) refuting the two premises that underlie Davis' discussion of the culture of the American South in the period before 1815
(D) challenging the hypothesis that early American culture was homogeneous in nature
(E) challenging the contention that the American South made greater contributions to early American culture than Puritan New England did
- (10) 22. The passage implies that the attitudes toward Native Americans that prevailed in the Southern colonies
- (A) were in conflict with the cosmopolitan outlook of the South
(B) derived from Southerners' strong interest in the law
(C) were modeled after those that prevailed in the North
(D) differed from those that prevailed in the Puritan colonies
(E) developed as a response to attitudes that prevailed in Massachusetts and Connecticut
- (15) 23. According to the author, the depiction of American culture during the Colonial and Revolutionary eras as an extension of New England Puritan culture reflects the
- (A) fact that historians have overestimated the importance of the Puritans in the development of American culture
(B) fact that early American culture was deeply influenced by the strong religious orientation of the colonists
(C) failure to recognize important and undeniable cultural differences between New Hampshire and Rhode Island on the one hand and the Southern colonies on the other
(D) extent to which Massachusetts and Connecticut served as cultural models for the other American colonies
(E) extent to which colonial America resisted assimilating cultural patterns that were typically English

GO ON TO THE NEXT PAGE.

24. The author of the passage is in agreement with which of the following elements of Davis' book?
- I. Davis' claim that acquisitiveness was a characteristic unique to the South during the Colonial period
 - II. Davis' argument that there were significant differences between Puritan and Southern culture during the Colonial period
 - III. Davis' thesis that the Southern colonies shared a common culture
- (A) I only
(B) II only
(C) III only
(D) I and II only
(E) II and III only
25. It can be inferred from the passage that the author would find Davis' second premise (lines 18-20) more plausible if it were true that
- (A) Puritan culture had displayed the tendency characteristic of the South to cultivate metropolitan cultural models
(B) Puritan culture had been dominant in all the non-Southern colonies during the seventeenth and eighteenth centuries
(C) the communal impulse and a strong religious orientation had been more prevalent in the South
(D) the various cultural patterns of the Southern colonies had more closely resembled each other
(E) the cultural patterns characteristic of most early modern British colonies had also been characteristic of the Puritan colonies
26. The passage suggests that by the late Colonial period the tendency to cultivate metropolitan cultural models was a cultural pattern that was
- (A) dying out as Puritan influence began to grow
(B) self-consciously and distinctively Southern
(C) spreading to Massachusetts and Connecticut
(D) more characteristic of the Southern colonies than of England
(E) beginning to spread to Rhode Island and New Hampshire
27. Which of the following statements could most logically follow the last sentence of the passage?
- (A) Thus, had more attention been paid to the evidence, Davis would not have been tempted to argue that the culture of the South diverged greatly from Puritan culture in the seventeenth century.
(B) Thus, convergence, not divergence, seems to have characterized the cultural development of the American colonies in the eighteenth century.
(C) Thus, without the cultural diversity represented by the American South, the culture of colonial America would certainly have been homogeneous in nature.
(D) Thus, the contribution of Southern colonials to American culture was certainly overshadowed by that of the Puritans.
(E) Thus, the culture of America during the Colonial period was far more sensitive to outside influences than historians are accustomed to acknowledge.

GO ON TO THE NEXT PAGE.

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. HARMONY: (A) dishonesty (B) indignity
(C) insecurity (D) discord (E) irritation
29. SLACK: (A) twisted (B) taut
(C) compact (D) durable (E) shattered
30. JOCULAR: (A) active (B) serious
(C) unknown (D) equitable (E) destructive
31. IMPEDIE: (A) assist (B) entreat
(C) dislodge (D) ascribe (E) avow
32. SAP: (A) fortify (B) alleviate
(C) lend credence (D) hold fast
(E) draw out

33. CONTROL:
(A) minor variable
(B) weak assumption
(C) improper simulation
(D) group experimented on
(E) expression substituted for
34. RECONDITE: (A) intended (B) defeated
(C) widely understood (D) freely dispensed
(E) recently discovered
35. INIMITABLE: (A) inclined to disagree
(B) unwilling to compete (C) eager to advise
(D) intelligible (E) ordinary
36. DISINTER: (A) restrain (B) confiscate
(C) resist (D) bury (E) fund
37. DIATRIBE:
(A) laudatory piece of writing
(B) formal speech by one person
(C) written agreement
(D) farewell address
(E) witty poem
38. HOODWINK: (A) explain (B) shock
(C) lead (D) disregard (E) disabuse

SECTION 6

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. The functions of the hands, eyes, and brain are so _____ that using the hands during early childhood helps to promote the child's entire _____ development.

(A) intertwined. .perceptual
(B) unalterable. .intellectual
(C) enigmatic. .psychological
(D) regulated. .adolescent
(E) individualized. .social

2. Before 1500 North America was inhabited by more than 300 cultural groups, each with different customs, social structures, world views, and languages; such diversity _____ the existence of a single Native American culture.

(A) complements (B) implies (C) reiterates
(D) argues against (E) explains away

3. That dealers ----- enough to nurture a young modern painter's career rather than plunder it exists is not impossible, but the public's ----- appetite for modern art makes such dealers less and less likely.

(A) chivalrous. .discriminating
(B) magnanimous. .quirky
(C) patient. .insatiable
(D) cynical. .finicky
(E) reckless. .zealous

4. In the absence of any ----- caused by danger, hardship, or even cultural difference, most utopian communities deteriorate into ----- but enervating backwaters.

(A) turmoil. .frantic
(B) mistrust. .naïve
(C) amelioration. .ignorant
(D) decimation. .intrusive
(E) stimulation. .placid

5. As Juanita argued, this new code of conduct is laughable; its principles are either ----, offering no wisdom but the obvious, or are so devoid of specific advice as to make almost any action -----.

(A) irresolute. .unlikely
(B) corroborative. .redundant
(C) platitudinous. .justifiable
(D) homogeneous. .impartial
(E) labyrinthine. .unacceptable

6. Histocompatibility antigens that attack foreign tissue in the body cannot have been ----- through evolution expressly to ----- organ transplantation; on the contrary, they have been found to facilitate many essential biological functions.

(A) designed. .retain
(B) produced. .aid
(C) developed. .enhance
(D) selected. .promote
(E) conserved. .foil

7. Their air of cheerful self-sacrifice and endless complaisance won them undeserved praise, for their seeming gallantry was wholly motivated by a ----- wish to avoid conflict of any sort.

(A) poignant
(B) sincere
(C) plaintive
(D) laudable
(E) craven

GO ON TO THE NEXT PAGE.

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. RUST : CORROSION ::

- (A) vapor : flammability
- (B) dew : condensation
- (C) crystal : purification
- (D) solution : precipitation
- (E) mold : disinfection

9. CLAIM : LEGITIMATED ::

- (A) hypothesis : confirmed
- (B) verdict : appealed
- (C) counterargument : doubted
- (D) proposition : repeated
- (E) speculation : disbelieved

10. ENCLOSE : PARENTHESES ::

- (A) abbreviate : brackets
- (B) emphasize : hyphen
- (C) separate : comma
- (D) join : period
- (E) omit : colon

11. ANTENNA : SIGNAL :: (A) bread : grain

- (B) story : reporter (C) stem : flower
- (D) net : fish (E) telegram : sender

12. WAG : HUMOROUS ::

- (A) ruffian : frightened
- (B) spendthrift : inattentive
- (C) dolt : stupid
- (D) pirate : merciless
- (E) sinner : repentant

13. FIRM : IRONCLAD :: (A) bruised : broken

- (B) polished : shining (C) smart : brilliant
- (D) hard : stiff (E) jovial : merry

14. FOIL : METAL :: (A) pebble : concrete

- (B) suede : leather (C) glaze : pottery
- (D) veneer : wood (E) paper : cardboard

15. LEAVE : ABSCOND :: (A) take : steal

- (B) evacuate : flee (C) interest : astound
- (D) build : renovate (E) evaluate : downgrade

16. QUAFF : SIP :: (A) bolt : run (B) punch : hit

- (C) gnaw : nibble (D) trudge : plod
- (E) stride : mince

GO ON TO THE NEXT PAGE.

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.

Line
(5) For some time scientists have believed that cholesterol plays a major role in heart disease because people with familial hypercholesterolemia, a genetic defect, have six to eight times the normal level of cholesterol in their blood and they invariably develop heart disease. These people lack cell-surface receptors for low-density lipoproteins (LDL's), which are the fundamental carriers of blood cholesterol to the body cells that use cholesterol. Without an adequate number of cell-surface receptors to remove LDL's from the blood, the cholesterol-carrying LDL's remain in the blood, increasing blood cholesterol levels. Scientists also noticed that people with familial hypercholesterolemia appear to produce more LDL's than normal individuals. How, scientists
(10) wondered, could a genetic mutation that causes a slowdown in the removal of LDL's from the blood also result in an increase in the synthesis of this cholesterol-carrying protein?

(15) Since scientists could not experiment on human body tissue, their knowledge of familial hypercholesterolemia was severely limited. However, a breakthrough came in the laboratories of Yoshio Watanabe of Kobe University in Japan in 1980. Watanabe noticed that a male rabbit in his colony had ten times the normal concentration of cholesterol in its blood. By appropriate breeding, Watanabe obtained a strain of rabbits that had very high cholesterol levels. These rabbits spontaneously developed heart disease. To his surprise, Watanabe further found that the rabbits, like humans with familial hypercholesterolemia, lacked LDL receptors. Thus, scientists could study these Watanabe rabbits to gain a better understanding of familial hypercholesterolemia in humans.

(20) Prior to the breakthrough at Kobe University, it was known that LDL's are secreted from the liver in the form of a precursor, called very low-density lipoproteins (VLDL's), which carry triglycerides as well as relatively small amounts of cholesterol. The triglycerides are removed from the VLDL's by fatty and other tissues. What remains is a remnant particle that must be removed from the blood. What scientists learned by studying the Watanabe rabbits is that the removal of the VLDL remnant requires the LDL receptor. Normally, the majority of the VLDL remnants go to the liver where they bind to LDL receptors and are degraded. In the Watanabe rabbit, due to a lack of LDL receptors on liver cells, the VLDL remnants remain in the blood and are eventually converted to LDL's. The LDL receptors thus have a dual effect in controlling LDL levels. They are necessary to prevent oversynthesis of LDL's from VLDL remnants and they are necessary for the normal removal of LDL's from the blood. With this knowledge, scientists are now well on the way toward developing drugs that dramatically lower cholesterol levels in people afflicted with certain forms of familial hypercholesterolemia.

- (17) In the passage, the author is primarily concerned with
(A) presenting a hypothesis and describing compelling evidence in support of it
(B) raising a question and describing an important discovery that led to an answer
(C) showing that a certain genetically caused disease can be treated effectively with drugs
(D) explaining what causes the genetic mutation that leads to heart disease
(E) discussing the importance of research on animals for the study of human disease
- (18) Which of the following drugs, if developed, would most likely be an example of the kind of drug mentioned in line 53?
(A) A drug that stimulates the production of VLDL remnants
(B) A drug that stimulates the production of LDL receptors on the liver
(C) A drug that stimulates the production of an enzyme needed for cholesterol production
(D) A drug that suppresses the production of body cells that use cholesterol
(E) A drug that prevents triglycerides from attaching to VLDL's
- (19) The passage supplies information to answer which of the following questions?
(A) Which body cells are the primary users of cholesterol?
(B) How did scientists discover that LDL's are secreted from the liver in the form of a precursor?
(C) Where in the body are VLDL remnants degraded?
(D) Which body tissues produce triglycerides?
(E) What techniques are used to determine the presence or absence of cell-surface receptors?

GO ON TO THE NEXT PAGE.

20. According to the passage, by studying the Watanabe rabbits scientists learned that
- (A) VLDL remnants are removed from the blood by LDL receptors in the liver
 - (B) LDL's are secreted from the liver in the form of precursors called VLDL's
 - (C) VLDL remnant particles contain small amounts of cholesterol
 - (D) triglycerides are removed from VLDL's by fatty tissues
 - (E) LDL receptors remove LDL's from the blood
21. The development of drug treatments for some forms of familial hypercholesterolemia is regarded by the author as
- (A) possible, but not very important
 - (B) interesting, but too costly to be practical
 - (C) promising, but many years off
 - (D) extremely unlikely
 - (E) highly probable
22. The passage implies that if the Watanabe rabbits had had as many LDL receptors on their livers as do normal rabbits, the Watanabe rabbits would have been
- (A) less likely than normal rabbits to develop heart disease
 - (B) less likely than normal rabbits to develop high concentrations of cholesterol in their blood
 - (C) less useful than they actually were to scientists in the study of familial hypercholesterolemia in humans
 - (D) unable to secrete VLDL's from their livers
 - (E) immune to drugs that lower cholesterol levels in people with certain forms of familial hypercholesterolemia
23. The passage implies that Watanabe rabbits differ from normal rabbits in which of the following ways?
- (A) Watanabe rabbits have more LDL receptors than do normal rabbits.
 - (B) The blood of Watanabe rabbits contains more VLDL remnants than does the blood of normal rabbits.
 - (C) Watanabe rabbits have fewer fatty tissues than do normal rabbits.
 - (D) Watanabe rabbits secrete lower levels of VLDL's than do normal rabbits.
 - (E) The blood of Watanabe rabbits contains fewer LDL's than does the blood of normal rabbits.

GO ON TO THE NEXT PAGE.

(The article from which this passage was taken appeared in 1981.)

Line
(5)

(10)

(15)

(20)

When speaking of Romare Bearden, one is tempted to say, "A great Black American artist." The subject matter of Bearden's collages is certainly Black. Portrayals of the folk of Mecklenburg County, North Carolina, whom he remembers from early childhood, of the jazz musicians and tenement roofs of his Harlem days, of Pittsburgh steelworkers, and his reconstruction of classical Greek myths in the guise of the ancient Black kingdom of Benin, attest to this. In natural harmony with this choice of subject matter are the social sensibilities of the artist, who remains active today with the Cinque Gallery in Manhattan, which he helped found and which is devoted to showing the work of minority artists.

Then why not call Bearden a Black American artist? Because ultimately this categorization is too narrow. "What stands up in the end is structure," Bearden says. "What I try to do is amplify. If I were just creating a picture of a farm woman from back home, it would have meaning to her and people there. But art amplifies itself to something universal."

24. According to the passage, all of the following are depicted in Bearden's collages EXCEPT

- (A) workers in Pittsburgh's steel mills
- (B) scenes set in the ancient kingdom of Benin
- (C) people Bearden knew as a child
- (D) traditional representations of the classical heroes of Greek mythology
- (E) the jazz musicians of the Harlem Bearden used to know

25. The author suggests that Bearden should not be called a Black American artist because

- (A) there are many collages by Bearden in which the subject matter is not Black
- (B) Bearden's work reflects the Black American experience in a highly individual style
- (C) through the structure of Bearden's art his Black subjects come to represent all of humankind
- (D) Bearden's true significance lies not so much in his own work as in his efforts to help other minority artists
- (E) much of Bearden's work uses the ancient Black kingdom of Benin for its setting

26. Bearden's social sensibilities and the subject matter of his collages are mentioned by the author in order to explain

- (A) why one might be tempted to call Bearden a Black American artist
- (B) why Bearden cannot be readily categorized
- (C) why Bearden's appeal is thought by many to be ultimately universal
- (D) how deeply an artist's artistic creations are influenced by the artist's social conscience
- (E) what makes Bearden unique among contemporary Black American artists

27. The author of the passage is chiefly concerned with

- (A) discussing Bearden's philosophy of art
- (B) assessing the significance of the ethnic element in Bearden's work
- (C) acknowledging Bearden's success in giving artistic expression to the Black American experience
- (D) pointing out Bearden's helpfulness to other minority artists
- (E) tracing Bearden's progress toward artistic maturity

GO ON TO THE NEXT PAGE.

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. INSERT: (A) remove (B) improve
(C) revise (D) lessen (E) copy
29. BANKRUPTCY: (A) hypocrisy (B) solvency
(C) advocacy (D) comparability (E) adversity
30. RELEVANT: (A) immaterial (B) random
(C) hidden (D) false (E) inopportune
31. IMPLOSION:
(A) high-frequency pitch
(B) violent chemical reaction
(C) rapid outward movement
(D) complete change in composition
(E) uncontrolled variation in temperature
32. SLAB: (A) nib (B) streak (C) husk
(D) sliver (E) shield
33. RAREFY: (A) contract suddenly
(B) converge slowly (C) blend thoroughly
(D) make denser (E) cool quickly
34. IMPETUOUS: (A) appropriate (B) respectful
(C) uninteresting (D) voracious (E) deliberate
35. VITUPERATIVE: (A) suggestive
(B) complimentary (C) genuine
(D) undirected (E) pessimistic
36. FOMENT: (A) squelch (B) sweeten
(C) dilute (D) liberate (E) clear
37. INCHOATE: (A) explicit (B) dependable
(C) pragmatic (D) therapeutic (E) enduring
38. TYRO: (A) underling (B) expert
(C) eccentric (D) truthful person
(E) benevolent ruler

FOR GENERAL TEST 11 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 3		Section 6			
Number	Answer	P +	Number	Answer	P +
1	A	96	1	A	89
2	C	74	2	D	75
3	C	71	3	C	59
4	C	55	4	E	50
5	D	59	5	C	57
6	E	43	6	E	39
7	A	28	7	E	24
8	B	94	8	B	81
9	D	83	9	A	86
10	C	75	10	C	84
11	D	63	11	D	57
12	D	49	12	C	51
13	E	39	13	C	43
14	E	37	14	D	30
15	E	32	15	A	32
16	C	27	16	E	14
17	A	75	17	B	54
18	O	71	18	B	74
19	D	80	19	C	52
20	B	68	20	A	57
21	B	41	21	E	83
22	D	69	22	C	53
23	A	47	23	B	54
24	E	38	24	D	65
25	B	41	25	C	83
26	C	31	26	A	45
27	B	41	27	B	33
28	D	89	28	A	98
29	B	82	29	B	81
30	B	72	30	A	83
31	A	74	31	C	76
32	A	57	32	D	64
33	D	42	33	D	39
34	C	36	34	E	41
35	E	31	35	B	31
36	D	29	36	A	28
37	A	29	37	B	21
38	E	17	38	B	21

QUANTITATIVE ABILITY					
Section 1		Section 5			
Number	Answer	P +	Number	Answer	P +
1	A	90	1	B	88
2	A	83	2	A	85
3	B	88	3	B	85
4	A	83	4	A	81
5	C	84	5	B	80
6	C	68	6	C	77
7	A	83	7	D	77
8	B	71	8	B	77
9	D	76	9	B	67
10	B	76	10	C	64
11	D	52	11	A	48
12	A	64	12	D	41
13	B	74	13	C	46
14	B	33	14	A	60
15	A	32	15	D	20
16	C	86	16	B	77
17	C	76	17	B	84
18	A	78	18	B	72
19	C	63	19	C	74
20	B	62	20	M	80
21	A	76	21	C	90
22	C	68	22	D	83
23	B	59	23	D	65
24	D	64	24	E	68
25	D	64	25	A	44
26	B	53	26	C	64
27	B	45	27	B	54
28	C	37	28	B	47
29	D	20	29	A	37
30	C	19	30	A	21

ANALYTICAL ABILITY					
Section 2		Section 4			
Number	Answer	P +	Number	Answer	P +
1	C	75	1	B	56
2	D	54	2	B	78
3	D	59	3	C	78
4	A	82	4	E	86
5	C	71	5	E	41
6	B	76	6	A	79
7	D	73	7	C	78
8	B	80	8	A	68
9	C	54	9	B	76
10	A	72	10	A	57
11	E	86	11	D	66
12	D	10	12	D	47
13	D	62	13	D	42
14	D	60	14	A	37
15	E	28	15	E	67
16	A	51	16	B	89
17	B	42	17	B	29
18	A	27	18	E	51
19	C	33	19	C	73
20	C	62	20	E	32
21	E	22	21	D	25
22	B	21	22	D	10
23	B	56	23	C	69
24	B	61	24	C	75
25	B	46	25	A	66

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

SECTION 3

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. By idiosyncratically refusing to dismiss an subordinate member of his staff, the manager not only — established policy, but he also — his heretofore good chances for promotion.
(A) instituted..bettered
(B) recognized..protected
(C) contravened..jeopardized
(D) reiterated..computed
(E) delimited..restricted
2. Congress is having great difficulty developing a consensus on energy policy, primarily because the policy objectives of various members of Congress rest on such — assumptions.
(A) commonplace (B) trivial
(C) explicit (D) divergent
(E) fundamental
3. The widespread public shock at the news of the guilty verdict was caused partly by — news stories that had — acquittal.
(A) sensational..condemned
(B) buried..urged
(C) impartial..mentioned
(D) biased..predicted
(E) local..denounced
4. The idealized paintings of nature produced in the eighteenth century are evidence that the medieval — natural settings had been — and that the outdoors now could be enjoyed without trepidation.
(A) fear of..exorcised
(B) concerns about..regained
(C) affection for..surmounted
(D) disinterest in..alleviated
(E) enthusiasm for..confronted

5. Some paleontologists debate whether the diversity of species has — since the Cambrian period, or whether imperfections in the fossil record only suggest greater diversity today, while in actuality there has been either — or decreased diversity.
(A) changed..escalation
(B) increased..stasis
(C) expanded..discontinuity
(D) declined..reduction
(E) improved..deviation
6. Manipulating laboratory tissue cultures with hormones is one thing; using hormones to treat human beings, however, is contingent on whether hormones that — in the laboratory can affect — organisms, and in predictable ways.
(A) develop..similar
(B) succeed..simpler
(C) fail..cellular
(D) work..whole
(E) reproduce..unknown
7. The astronomer and feminist Maria Mitchell's own prodigious activity and the vigor of the Association for the Advancement of Women during the 1870's — any assertion that feminism was — in that period.
(A) exclude..thriving
(B) contradict..prospering
(C) pervade..remote
(D) buttress..dormant
(E) belie..quiescent

GO ON TO THE NEXT PAGE.

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. ABSORB : SPONGE ::

- (A) spin : wool
- (B) stain : detergent
- (C) pump : gasoline
- (D) seal : caulk
- (E) sharpen : pencil

9. DALLY : TIME ::

- (A) trespass : land
- (B) squander : money
- (C) shirk : task
- (D) achieve : victory
- (E) harbor : safety

10. KNIT : YARN ::

- (A) darn : sock
- (B) plait : hair
- (C) crochet : hook
- (D) braid : knot
- (E) weave : loom

11. DECIBEL : LOUDNESS ::

- (A) circumference : circle
- (B) spectrum : color
- (C) light-year : distance
- (D) meter : mile
- (E) clock : duration

12. EMBEZZLE : FUNDS ::

- (A) wield : influence
- (B) exploit : victim
- (C) usurp : power
- (D) overcome : combatant
- (E) impede : obstacle

13. NEOPHYTE : EXPERIENCE ::

- (A) diplomat : negotiation
- (B) misanthrope : cynicism
- (C) umpire : reconciliation
- (D) guru : respect
- (E) boor : sensitivity

14. REFINE : PURIFICATION ::

- (A) deflect : conformity
- (B) attenuate : rarefaction
- (C) regenerate : sustenance
- (D) standardize : disconfirmation
- (E) dilate : contraction

15. MELODRAMATIC : SUBTLETY ::

- (A) chimera : authenticity
- (B) parody : wit
- (C) war : strategy
- (D) brief : abstract
- (E) hypothesis : theory

16. UNTENABLE : DEFENDED ::

- (A) satiated : satisfied
- (B) heretical : considered
- (C) fragile : touched
- (D) inevitable : avoided
- (E) suspicious : doubted

GO ON TO THE NEXT PAGE.

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.

The more that is discovered about the intricate organization of the nervous system, the more it seems remarkable that genes can successfully specify the development of that system. Human genes contain too little information even to specify which hemisphere of the brain each of a human's 10^{11} neurons should occupy, let alone the hundreds of connections that each neuron makes. For such reasons, we can assume that there must be an important random factor in neural development, and in particular, that errors must and do occur in the development of all normal brains.

The most vivid expression of such errors occurs in genetically identical (isogenic) organisms. Even when reared under the same conditions, isogenic organisms are rarely exact copies of one another, and their differences have revealed much about the random variations that result from an organism's limited supply of genetic information. In isogenic *Daphniae*, for example, even though the position, size, and branching pattern of each optic neuron are remarkably constant, there is some variability in connectivity, and the number of synapses varies greatly. This variability is probably the result of random scatter beyond the resolution of genetic control and is best termed "imprecision," since its converse, the degree of clustering about a mean, is conventionally called "precision."

Imprecision should be distinguished from developmental mistakes: wrongly migrated neurons, incorrect connections, and the like. To use a computer analogy, minor rounding-off errors occur universally and are analogous to imprecision, but occasionally a binary digit is incorrectly transmitted, perhaps ruining a calculation, and this incorrect transmission is analogous to a developmental mistake. Thus, imprecision is a form of inaccuracy inherent within the limits of design, but mistakes are forms of gross fallibility.

Both imprecision and gross fallibility can plausibly be blamed on the insufficiency of genetic information, since either could be reduced by adding more information. It is universally accepted among information theorists that codes and languages can be made mistake-resistant by incorporating redundancy. However, since the amount of space available in any information system is limited, increased redundancy results in decreased precision. For example, π when written incorrectly in English, "three point oen four two," can be understood correctly even

though a typographical error has occurred. More precision could be gained, however, if those 24 spaces were filled with Arabic numerals; then π could be expressed to 23 significant digits, although any error would significantly change the meaning. There exists a trade-off; the more precisely a system is specified, using a given limited amount of information, the greater the danger of gross mistakes. The overall scheme by which genetic information is rationed out in organisms, therefore, must involve a compromise between two conflicting priorities: precision and the avoidance of gross mistakes.

17. Which of the following best expresses the main idea of the passage?

- (A) Although studies of isogenic organisms have shown that all organisms are subject to developmental variations, there is still scientific debate over the exact causes of these variations.
- (B) Because of limitations on the amount of information contained in the genes of organisms, developing nervous systems are subject to two basic kinds of error, the likelihood of one of which is reduced only when the likelihood of the other is increased.
- (C) The complexity of an organism's genetic information means that much of the unusual variation that occurs among organisms can best be explained as the result of developmental mistakes.
- (D) New findings about the nature of the genetic control of neural development support the work of some scientists who argue that the computer is an extremely useful model for understanding the nervous system.
- (E) The major discovery made by scientists studying the genetic control of neural development is that both imprecision and gross developmental error can be traced to specific types of mutations in specific genes.

GO ON TO THE NEXT PAGE.

18. According to the passage, one of the reasons it has been assumed that there is an important random element in human neural development is that
- (A) genes cannot specify certain types of developmental processes as well as they can others
 - (B) the intricacy of the nervous system allows small developmental errors to occur without harmful effects
 - (C) the amount of information contained in the genes is less than the amount necessary to specify the location of the neurons
 - (D) the number of neurons in the human brain varies greatly from individual to individual
 - (E) it is theoretically impossible for an organism to protect itself completely from gross developmental mistakes
19. The author suggests which of the following about the findings of information theorists?
- (A) Their findings provocatively challenge the standard explanation of redundancy in genes.
 - (B) Their findings provide useful insights into understanding the rationing of genetic information.
 - (C) Their findings help to explain why imprecision can occur in neural development but not why gross mistakes can occur.
 - (D) Their findings suggest that genes may be able to specify neural development more accurately than had previously been thought.
 - (E) Their findings support the work of those who use computer operations as models for understanding genetic control.
20. According to the passage, of the following aspects of the optic neurons of isogenic *Daphniae*, which varies the most?
- (A) Size
 - (B) Connectivity
 - (C) Position
 - (D) Branching pattern
 - (E) Number of synapses
21. Which of the following best describes the organization of the first paragraph?
- (A) A specific case is presented, its details are analyzed, and a conclusion is drawn from it.
 - (B) A discovery is announced, its most significant application is discussed, and possibilities for the future are suggested.
 - (C) A generalization is made, specific situations in which it is applicable are noted, and problems with it are suggested.
 - (D) An observation is made, specifics are provided to support it, and a generalization is derived.
 - (E) A hypothesis is presented, its implications are clarified, and applications of it are discussed.
22. The author uses all of the following to clarify the distinction between imprecision and gross mistake in neural development EXCEPT
- (A) classification of borderline phenomena
 - (B) a description of the relationship between the phenomena denoted by each term
 - (C) specific examples of the phenomena denoted by each term
 - (D) an explanation of at least one of the key terms involved
 - (E) analogies to other types of phenomena
23. Which of the following can be inferred from the passage about the genetic information of *Daphniae*?
- I. There is probably some degree of redundancy in the information controlling neural development.
 - II. Most of the information for neural development stored in the genes is used to specify the positions of the optic neurons.
 - III. There is sufficient information to preclude the occurrence of gross mistakes during neural development.
- (A) I only
 - (B) II only
 - (C) III only
 - (D) I and II only
 - (E) II and III only

GO ON TO THE NEXT PAGE.

In a recent study, David Cressy examines two central questions concerning English immigration to New England in the 1630's: what kinds of people immigrated and why? Using contemporary literary evidence, shipping lists, and customs records, Cressy finds that most adult immigrants were skilled in farming or crafts, were literate, and were organized in families. Each of these characteristics sharply distinguishes the 21,000 people who left for New England in the 1630's from most of the approximately 377,000 English people who had immigrated to America by 1700.

With respect to their reasons for immigrating, Cressy does not deny the frequently noted fact that some of the immigrants of the 1630's, most notably the organizers and clergy, advanced religious explanations for departure, but he finds that such explanations usually assumed primacy only in retrospect. When he moves beyond the principal actors, he finds that religious explanations were less frequently offered and he concludes that most people immigrated because they were recruited by promises of material improvement.

24. In the passage, the author is primarily concerned with
- (A) summarizing the findings of an investigation
 - (B) analyzing a method of argument
 - (C) evaluating a point of view
 - (D) hypothesizing about a set of circumstances
 - (E) establishing categories

25. According to the passage, Cressy would agree with which of the following statements about the organizers among the English immigrants to New England in the 1630's?

- I. Most of them were clergy.
 - II. Some of them offered a religious explanation for their immigration.
 - III. They did not offer any reasons for their immigration until some time after they had immigrated.
 - IV. They were more likely than the average immigrant to be motivated by material considerations.
- (A) I only
 - (B) II only
 - (C) II and III only
 - (D) I, III, and IV only
 - (E) II, III, and IV only

26. According to the passage, Cressy has made which of the following claims about what motivated English immigrants to go to New England in the 1630's?
- (A) They were motivated by religious considerations alone.
 - (B) They were motivated by economic considerations alone.
 - (C) They were motivated by religious and economic considerations equally.
 - (D) They were motivated more often by economic than by religious considerations.
 - (E) They were motivated more often by religious than by economic considerations.
27. The passage suggests that the majority of those English people who had immigrated to America by the late seventeenth century were
- (A) clergy
 - (B) young children
 - (C) organized in families
 - (D) skilled in crafts
 - (E) illiterate

GO ON TO THE NEXT PAGE.

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. CONTINUITY:

- (A) disjunction
- (B) disability
- (C) discomfort
- (D) deceit
- (E) defection

29. LETHARGY:

- (A) flexibility
- (B) adequacy
- (C) toughness
- (D) plainness
- (E) vigor

30. STOMACH:

- (A) reformulate
- (B) anticipate
- (C) hand out freely
- (D) refuse to tolerate
- (E) lose fascination for

31. DEFAULT:

- (A) consume
- (B) resign
- (C) rely on others
- (D) desire to advance
- (E) fulfill an obligation

32. HAVEN:

- (A) challenging puzzle
- (B) gloomy cavern
- (C) dangerous place
- (D) deserted building
- (E) unhappy incident

33. OCCLUDED:

- (A) unobstructed
- (B) intersecting
- (C) extrapolated
- (D) diminished
- (E) extended

34. PLUMB:

- (A) examine superficially
- (B) answer accurately
- (C) agree
- (D) fool
- (E) abstain

35. OBSTINATE:

- (A) excitable
- (B) tractable
- (C) dispensable
- (D) gleanable
- (E) comfortable

36. PITH:

- (A) unsound opinion
- (B) previous statement
- (C) erroneous judgment
- (D) insignificant part
- (E) inconclusive evidence

37. IMPECUNIOUS:

- (A) heinous
- (B) noxious
- (C) contented
- (D) affluent
- (E) responsive

38. CANONICAL:

- (A) infelicitous
- (B) irrefutable
- (C) heterodox
- (D) minuscule
- (E) undesigned

SECTION 6

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. Only by ignoring decades of mismanagement and inefficiency could investors conclude that a fresh infusion of cash would provide anything more than a —— solution to the company's financial woes.
(A) fair
(B) temporary
(C) genuine
(D) realistic
(E) complete
2. Although the discovery of antibiotics led to great advances in clinical practice, it did not represent a —— bacterial illness, for there are some bacteria that cannot be —— treated with antibiotics.
(A) breakthrough in . . consistently
(B) panacea for . . effectively
(C) neglect of . . efficiently
(D) reexamination of . . conventionally
(E) resurgence of . . entirely
3. A misconception frequently held by novice writers is that sentence structure mirrors thought: the more convoluted the structure, the more —— the ideas.
(A) complicated
(B) inconsequential
(C) elementary
(D) fanciful
(E) blatant
4. Jones was unable to recognize the contradictions in his attitudes that were obvious to everyone else; even the hint of an untruth was —— to him, but he —— serious trouble by always cheating on his taxes.
(A) acceptable . . risked
(B) exciting . . averted
(C) repugnant . . courted
(D) anathema . . evaded
(E) tempting . . hazarded
5. Even though the general's carefully qualified public statement could hardly be ——, some people took —— it.
(A) respected . . liberties with
(B) inoffensive . . umbrage at
(C) faulted . . exception to
(D) credited . . potshots at
(E) dismissed . . interest in
6. Though feminist in its implications, Yvonne Rainer's 1974 film —— the filmmaker's active involvement in feminist politics.
(A) preserved
(B) portrayed
(C) encouraged
(D) renewed
(E) antedated
7. The chances that a species will —— are reduced if any vital function is restricted to a single kind of organ; —— by itself possesses an enormous survival advantage.
(A) degenerate . . complexity
(B) expire . . size
(C) disappear . . variety
(D) flourish . . symmetry
(E) persist . . redundancy

GO ON TO THE NEXT PAGE.

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. PLEASURE : ECSTASY ::

- (A) complacence : envy
- (B) surprise : astonishment
- (C) anxiety : curiosity
- (D) pride : vexation
- (E) pity : dread

9. LIMERICK : POEM ::

- (A) lampoon : satire
- (B) setting : play
- (C) fable : moral
- (D) material : collage
- (E) plot : character

10. SOUND : AIR ::

- (A) oil : tanker
- (B) signal : wave
- (C) electricity : copper
- (D) light : camera
- (E) x-ray : lead

11. INDELIBILITY : ERASURE ::

- (A) impermeability : passage
- (B) enumeration : ordering
- (C) illegibility : writing
- (D) reactivity : stimulation
- (E) reflectivity : visibility

12. EXPIATE : GUILT ::

- (A) canvass : support
- (B) adorn : appearance
- (C) testify : conviction
- (D) correct : error
- (E) preach : conversion

13. INFILTRATE : ENTER ::

- (A) comply : index
- (B) invade : assault
- (C) allege : prove
- (D) insinuate : say
- (E) disclose : announce

14. OVERTURE : OPERA ::

- (A) preamble : statute
- (B) gambit : move
- (C) climax : story
- (D) actor : cast
- (E) commencement : graduate

15. PUNGENT : ODOR ::

- (A) caustic : comment
- (B) durable : substance
- (C) constant : period
- (D) ominous : threat
- (E) excessive : responsibility

16. ATTACK : VANQUISHED ::

- (A) woo : adored
- (B) smother : choked
- (C) spy : investigated
- (D) goad : provoked
- (E) guess : calculated

GO ON TO THE NEXT PAGE.

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.

[This passage was excerpted from an article published in 1975.]

Line
(5) Is the literary critic like the poet, responding creatively, intuitively, subjectively to the written word as the poet responds to human experience? Or is the critic more like a scientist, following a series of demonstrable, verifiable steps, using an objective method of analysis?

(10) For the woman who is a practitioner of feminist literary criticism, the subjectivity *versus* objectivity, or critic-as-artist-or-scientist, debate has special significance; for her, the question is not only academic, but political as well, and her definition will court special risks whichever side of the issue it favors. If she defines feminist criticism as objective and scientific—a valid, verifiable, intellectual method that anyone, whether man or woman, can perform—the definition not only precludes the critic-as-artist approach, but may also impede accomplishment of the utilitarian political objectives of those who seek to change the academic establishment and its thinking, especially about sex roles. If she defines feminist criticism as creative and intuitive, privileged as art, then her work becomes vulnerable to the prejudices of stereotypic ideas about the ways in which women think, and will be dismissed by much of the academic establishment. Because of these prejudices, women who use an intuitive approach in their criticism may find themselves charged (15) with inability to be analytical, to be objective, or to think critically. Whereas men may be free to claim the role of critic-as-artist, women run different professional risks when they choose intuition and private experience as critical method and defense.

(20) These questions are political in the sense that the debate over them will inevitably be less an exploration of abstract matters in a spirit of disinterested inquiry than an academic power struggle in which the careers and professional fortunes of many women scholars—only now entering the academic profession in substantial numbers—will be at stake, and with them the chances for a distinctive contribution to humanistic understanding, a contribution that might be an important influence against sexism in our society.

(25) As long as the academic establishment continues to regard objective analysis as "masculine" and an intuitive approach as "feminine," the theoretician must steer a delicate philosophical course between the two. If she wishes to construct a theory of feminist criticism, she would be well advised to place it within the framework of a general theory of the critical process that is neither purely objective nor purely intuitive. Her theory is then more likely to be compared and contrasted with other theories of criticism with some degree of dispassionate distance.

17. Which of the following titles best summarizes the content of the passage?

- (A) How Theories of Literary Criticism Can Best Be Used
- (B) Problems Confronting Women Who Are Feminist Literary Critics
- (C) A Historical Overview of Feminist Literary Criticism
- (D) A New Theory of Literary Criticism
- (E) Literary Criticism: Art or Science?

18. It can be inferred that the author believes which of the following about women who are literary critics?

- I. They can make a unique contribution to society.
 - II. They must develop a new theory of the critical process.
 - III. Their criticisms of literature should be entirely objective.
- (A) I only
 - (B) II only
 - (C) I and III only
 - (D) II and III only
 - (E) I, II, and III

19. The author specifically mentions all of the following as difficulties that particularly affect women who are theoreticians of feminist literary criticism EXCEPT the

- (A) tendency of a predominantly male academic establishment to form preconceptions about women
- (B) limitations that are imposed when criticism is defined as objective and scientific
- (C) likelihood that the work of a woman theoretician who claims the privilege of art will be viewed with prejudice by some academics
- (D) inescapability of power struggles between women in the academic profession and the academic establishment
- (E) tendency of members of the academic establishment to treat all forms of feminist literary theory with hostility

GO ON TO THE NEXT PAGE.

20. According to the author, the debate mentioned in the passage has special significance for the woman who is a theoretician of feminist literary criticism for which of the following reasons?
- (A) There are large numbers of capable women working within the academic establishment.
(B) There are a few powerful feminist critics who have been recognized by the academic establishment.
(C) Like other critics, most women who are literary critics define criticism as either scientific or artistic.
(D) Women who are literary critics face professional risks different from those faced by men who are literary critics.
(E) Women who are literary critics are more likely to participate in the debate than are men who are literary critics.
21. Which of the following is presented by the author in support of the suggestion that there is stereotypic thinking among members of the academic establishment?
- (A) A distinctively feminist contribution to humanistic understanding could work against the influence of sexism among members of the academic establishment.
(B) Women who define criticism as artistic may be seen by the academic establishment as being incapable of critical thinking.
(C) The debate over the role of the literary critic is often seen as a political one.
(D) Women scholars are only now entering academia in substantial numbers.
(E) The woman who is a critic is forced to construct a theory of literary criticism.
22. Which of the following is most likely to be one of the "utilitarian political objectives" mentioned by the author in line 16?
- (A) To forge a new theory of literary criticism
(B) To pursue truth in a disinterested manner
(C) To demonstrate that women are interested in literary criticism that can be viewed either subjectively or objectively
(D) To convince the academic establishment to revise the ways in which it assesses women scholars' professional qualities
(E) To dissuade women who are literary critics from taking a subjective approach to literary criticism
23. It can be inferred that the author would define as "political" (line 30) questions that
- (A) are contested largely through contentions over power
(B) are primarily academic in nature and open to abstract analysis
(C) are not in themselves important
(D) cannot be resolved without extensive debate
(E) will be debated by both men and women

GO ON TO THE NEXT PAGE.

[This passage was excerpted from an article published in 1979.]

Line (5) Quantum mechanics is a highly successful theory: it supplies methods for accurately calculating the results of diverse experiments, especially with minute particles. The predictions of quantum mechanics, however, give only the probability of an event, not a deterministic statement of whether or not the event will occur.

(10) Because of this probabilism, Einstein remained strongly dissatisfied with the theory throughout his life, though he did not maintain that quantum mechanics is wrong. Rather, he held that it is incomplete: in quantum mechanics the motion of a particle must be described in terms of probabilities, he argued, only because some parameters that determine the motion have not been specified. If these hypothetical "hidden parameters" were known, a fully deterministic trajectory could be defined. Significantly, this hidden-parameter quantum theory leads to experimental predictions different from those of traditional quantum mechanics. Einstein's ideas have been tested by experiments performed since his (15) death, and as most of these experiments support traditional quantum mechanics, Einstein's approach is almost certainly erroneous.

(20)

24. The author regards the idea that traditional quantum mechanics is incomplete with
- (A) approval
 - (B) surprise
 - (C) indifference
 - (D) apprehension
 - (E) skepticism
25. It can be inferred from the passage that the author's conclusion that Einstein's approach is "erroneous" (line 22) might have to be modified because
- (A) it is theoretically possible to generate plausible theories with hidden parameters within them
 - (B) some experimental tests of Einstein's theory do not disconfirm the hidden-parameter theory of quantum mechanics
 - (C) it is possible for a theory to have hidden parameters and yet be probabilistic
 - (D) traditional quantum mechanics has not yet been used to analyze all of the phenomena to which it could be applied
 - (E) there are too many possible hidden parameters to develop meaningful tests of hidden-parameter theories

26. According to the passage, Einstein posed objections to the
- (A) existence of hidden parameters in quantum theory
 - (B) probabilistic nature of quantum mechanics
 - (C) idea that quantum mechanics is incomplete
 - (D) results of experiments testing quantum theory
 - (E) importance accorded quantum mechanics in physics
27. The passage suggests that which of the following would have resulted if the experiments mentioned in lines 18-20 had not supported the predictions of traditional quantum mechanics?
- (A) Einstein, had he been alive, would have revised his approach to quantum mechanics.
 - (B) Hidden-parameter theories would have been considered inaccurate descriptions of real-world phenomena.
 - (C) A deterministic description of the motion of a particle might still be considered possible.
 - (D) Quantum mechanics would have ceased to attract the attention of physicists.
 - (E) Einstein, had he been alive, would have abandoned attempts to specify the hidden parameters that describe motion.

GO ON TO THE NEXT PAGE.

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. INGEST:

- (A) throw around
- (B) take along
- (C) expel
- (D) uncover
- (E) enlarge

29. SCRUTINY:

- (A) awkwardness
- (B) misunderstanding
- (C) casual glance
- (D) simple movement
- (E) slight injury

30. SLEW:

- (A) uncertain supply
- (B) unwanted interference
- (C) unsuitable arrangement
- (D) poor beginning
- (E) limited quantity

31. NEGATION:

- (A) allegiance
- (B) affirmation
- (C) guarantee
- (D) acquittal
- (E) validity

32. SATE:

- (A) dehydrate
- (B) enervate
- (C) initiate
- (D) quaff
- (E) starve

33. DISPOSED:

- (A) disinclined
- (B) disrupted
- (C) determined
- (D) derided
- (E) depressed

34. JIBE:

- (A) surpass
- (B) prevent
- (C) qualify
- (D) conflict
- (E) collect

35. APPRECIABLE:

- (A) interminable
- (B) unsatisfactory
- (C) tentative
- (D) timid
- (E) imperceptible

36. ARTLESSNESS:

- (A) zest
- (B) sense
- (C) mania
- (D) quirkiness
- (E) guile

37. FATUITY:

- (A) desiccation
- (B) sagacity
- (C) veracity
- (D) confirmation
- (E) artifice

38. PROPITIATE:

- (A) antagonize
- (B) discourage
- (C) repress
- (D) forsake
- (E) deceive

FOR GENERAL TEST 12 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+
1	C	87	1	B	86
2	D	81	2	B	57
3	D	84	3	A	71
4	A	63	4	C	72
5	B	62	5	C	68
6	D	66	6	E	64
7	48	7	EE	29	
8	79	8	E	87	
9	BB	82	9	E	84
10	B	62	10	A	58
11	C	55	11	A	58
12	D	54	12	D	51
13	48	13	D	48	
14	B	41	14	A	48
15	A	43	15	A	39
16	D	50	16	D	26
17	46	17	B	75	
18	54	18	A	34	
19	40	19	EE	49	
20	E	68	20	D	70
21	D	51	21	B	69
22	A	51	22	D	54
23	A	27	23	A	58
24	A	56	24	E	56
25	B	40	25	B	38
26	D	78	26	B	56
27	EE	28	27	CC	41
28	A	89	28	CC	93
29	E	85	29	E	87
30	D	83	30	E	84
31	E	79	31	B	79
32	C	79	32	EE	48
33	A	55	33	A	46
34	A	46	34	D	38
35	B	51	35	D	41
36	D	35	36	E	34
37	D	27	37	B	29
38	C	28	38	A	17

QUANTITATIVE ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	A	94	1	A	78
2	D	89	2	B	91
3	B	73	3	D	84
4	B	70	4	B	72
5	C	60	5	B	79
6	A	85	6	C	73
7	A	59	7	A	58
8	D	26	8	A	64
9	A	64	9	D	69
10	A	74	10	C	57
11	B	49	11	B	56
12	C	36	12	BB	53
13	CB	35	13	CC	45
14	C	52	14	CC	38
15	O	24	15	O	47
16	C	83	16	B	87
17	E	81	17	O	73
18	A	63	18	OB	77
19	B	75	19	BB	79
20	O	39	20	EE	61
21	C	86	21	D	88
22	BB	68	22	EE	87
23	B	62	23	AA	84
24	E	52	24	D	73
25	E	40	25	B	40
26	E	78	26	C	48
27	A	45	27	B	37
28	B	84	28	A	29
29	B	36	29	AA	25
30	E	26	30	EE	19

ANALYTICAL ABILITY					
Section 2			Section 5		
Number	Answer	P+	Number	Answer	P+
1	B	85	1	D	83
2	EE	77	2	B	88
3	D	61	3	CC	56
4	A	60	4	CB	50
5	58	5	5	B	45
6	C	40	6	E	44
7	CC	64	7	B	70
8	CA	62	8	D	97
9	81	9	9	AA	80
10	D	72	10	E	84
11	D	60	11	D	78
12	A	73	12	B	69
13	BB	48	13	CC	56
14	D	36	14	AA	53
15	D	17	15	AA	35
16	E	19	16	D	26
17	B	67	17	E	41
18	A	52	18	A	50
19	D	41	19	E	48
20	EE	32	20	EE	33
21	EE	31	21	D	34
22	EE	35	22	D	25
23	EE	51	23	D	67
24	EE	38	24	D	70
25	EE	44	25	D	37

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 13

SECTION 1

Time—30 minutes

38 Questions

Directions: Each sentence that follows has one or two blanks, each blank indicating that something has been omitted. Following 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. The availability of oxygen is an essential _____ for animal life, while carbon dioxide is equally _____ for plant life.
(A) choice..optional
(B) duplication..selective
(C) conversion..exchangeable
(D) condition..necessary
(E) luxury..harmful
2. Prudery actually draws attention to the vice it is supposed to _____; the very act that forbids speech or prohibits sight _____ what is hidden.
(A) condemn..distorts
(B) monitor..signals
(C) repress..dramatizes
(D) obviate..fosters
(E) divulge..conceals
3. After thirty years of television, people have become "speed watchers"; consequently, if the camera lingers, the interest of the audience _____.
(A) broadens (B) begins (C) varies
(D) flags (E) clears
4. Compared mathematically to smoking and driving, almost everything else seems relatively risk-free, _____ almost nothing seems worth regulating.
(A) yet (B) since (C) so
(D) even though (E) as long as
5. Ironically, Carver's precision in sketching lives on the edge of despair ensures that his stories will sometimes be read too narrowly, much as Dickens' social-reformer role once caused his broader concerns to be _____.
(A) ignored (B) reinforced (C) contradicted
(D) diminished (E) diversified
6. The demise of the rigorous academic curriculum in high school resulted, in part, from the progressive rhetoric that _____ the study of subjects previously thought _____ as part of school learning.
(A) advocated..necessary
(B) enhanced..indispensable
(C) restricted..impractical
(D) undermined..popular
(E) sanctioned..inappropriate
7. While some see in practical jokes a wish for mastery in miniature over a world that seems very _____, others believe that the jokes' purpose is to disrupt, by reducing all transactions to _____.
(A) dubious..confusion
(B) disorderly..symmetry
(C) harmonious..dissonance
(D) unruly..chaos
(E) turbulent..uniformity

GO ON TO THE NEXT PAGE.

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. ATHLETE : TROPHY :: (A) detective : badge
(B) presenter : award (C) soldier : medal
(D) bettor : stake (E) musician : instrument
9. ARTICULATE : UNCLEAR ::
(A) assign : unencumbered
(B) elaborate : sketchy
(C) explain : lucid
(D) grieve : somber
(E) march : planned
10. INVENTORY : STOCK :: (A) calculation : ledger
(B) poll : balloting (C) survey : territory
(D) census : population (E) petition : names
11. LOGIC : REASONING ::
(A) sensitivity : morality
(B) arrogance : leadership
(C) ethics : behavior
(D) creativity : enthusiasm
(E) bravery : charisma
12. MIMICRY : CAMOUFLAGE ::
(A) photosynthesis : pollination
(B) territoriality : migration
(C) hibernation : generation
(D) mutation : variation
(E) digestion : rumination
13. APPREHENSION : TERROR ::
(A) interest : conspiracy
(B) affection : adoration
(C) indifference : animosity
(D) reluctance : termination
(E) anxiety : faith
14. LUMBER : GRACE :: (A) dissemble : pretense
(B) relent : energy (C) castigate : justice
(D) waver : resolution (E) insinuate : subtlety
15. CAUSTIC : EAT AWAY ::
(A) hormone : inhibit
(B) reagent : bind
(C) explosive : destroy
(D) synthetic : substitute
(E) desiccant : dry
16. MALINGERER : DUTY ::
(A) scholar : pedantry (B) recluse : humanity
(C) rebel : responsibility (D) miser : wealth
(E) patron : criticism

GO ON TO THE NEXT PAGE.

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.

Classical physics defines the vacuum as a state of absence: a vacuum is said to exist in a region of space if there is nothing in it. In the quantum field theories that describe the physics of elementary particles, the vacuum becomes somewhat more complicated. Even in empty space, particles can appear spontaneously as a result of fluctuations of the vacuum. For example, an electron and a positron, or antielectron, can be created out of the void. Particles created in this way have only a fleeting existence; they are annihilated almost as soon as they appear, and their presence can never be detected directly. They are called virtual particles in order to distinguish them from real particles, whose lifetimes are not constrained in the same way, and which can be detected. Thus it is still possible to define the vacuum as a space that has no real particles in it.

One might expect that the vacuum would always be the state of lowest possible energy for a given region of space. If an area is initially empty and a real particle is put into it, the total energy, it seems, should be raised by at least the energy equivalent of the mass of the added particle. A surprising result of some recent theoretical investigations is that this assumption is not invariably true. There are conditions under which the introduction of a real particle of finite mass into an empty region of space can reduce the total energy. If the reduction in energy is great enough, an electron and a positron will be spontaneously created. Under these conditions the electron and positron are not a result of vacuum fluctuations but are real particles, which exist indefinitely and can be detected. In other words, under these conditions the vacuum is an unstable state and can decay into a state of lower energy; i.e., one in which real particles are created.

The essential condition for the decay of the vacuum is the presence of an intense electric field. As a result of the decay of the vacuum, the space permeated by such a field can be said to acquire an electric charge, and it can be called a charged vacuum. The particles that materialize in the space make the charge manifest. An electric field of sufficient intensity to create a charged vacuum is likely to be found in only one place: in the immediate vicinity of a superheavy atomic nucleus, one with about twice as many protons as the heaviest natural nuclei known. A nucleus that large cannot be stable, but it might be possible to assemble one next to a vacuum for long enough to observe the decay of the vacuum. Experiments attempting to achieve this are now under way.

17. Which of the following titles best describes the passage as a whole?
 - (A) The Vacuum: Its Fluctuations and Decay
 - (B) The Vacuum: Its Creation and Instability
 - (C) The Vacuum: A State of Absence
 - (D) Particles That Materialize in the Vacuum
 - (E) Classical Physics and the Vacuum
18. According to the passage, the assumption that the introduction of a real particle into a vacuum raises the total energy of that region of space has been cast into doubt by which of the following?
 - (A) Findings from laboratory experiments
 - (B) Findings from observational field experiments
 - (C) Accidental observations made during other experiments
 - (D) Discovery of several erroneous propositions in accepted theories
 - (E) Predictions based on theoretical work
19. It can be inferred from the passage that scientists are currently making efforts to observe which of the following events?
 - (A) The decay of a vacuum in the presence of virtual particles
 - (B) The decay of a vacuum next to a superheavy atomic nucleus
 - (C) The creation of a superheavy atomic nucleus next to an intense electric field
 - (D) The creation of a virtual electron and a virtual positron as a result of fluctuations of a vacuum
 - (E) The creation of a charged vacuum in which only real electrons can be created in the vacuum's region of space

GO ON TO THE NEXT PAGE.

20. Physicists' recent investigations of the decay of the vacuum, as described in the passage, most closely resemble which of the following hypothetical events in other disciplines?
- (A) On the basis of data gathered in a carefully controlled laboratory experiment, a chemist predicts and then demonstrates the physical properties of a newly synthesized polymer.
- (B) On the basis of manipulations of macroeconomic theory, an economist predicts that, contrary to accepted economic theory, inflation and unemployment will both decline under conditions of rapid economic growth.
- (C) On the basis of a rereading of the texts of Jane Austen's novels, a literary critic suggests that, contrary to accepted literary interpretations, Austen's plots were actually metaphors for political events in early nineteenth-century England.
- (D) On the basis of data gathered in carefully planned observations of several species of birds, a biologist proposes a modification in the accepted theory of interspecies competition.
- (E) On the basis of a study of observations incidentally recorded in ethnographers' descriptions of non-Western societies, an anthropologist proposes a new theory of kinship relations.
21. According to the passage, the author considers the reduction of energy in an empty region of space to which a real particle has been added to be
- (A) a well-known process
(B) a frequent occurrence
(C) a fleeting aberration
(D) an unimportant event
(E) an unexpected outcome
22. According to the passage, virtual particles differ from real particles in which of the following ways?
- I. Virtual particles have extremely short lifetimes.
II. Virtual particles are created in an intense electric field.
III. Virtual particles cannot be detected directly.
- (A) I only
(B) II only
(C) III only
(D) I and II only
(E) I and III only
23. The author's assertions concerning the conditions that lead to the decay of the vacuum would be most weakened if which of the following occurred?
- (A) Scientists created an electric field next to a vacuum, but found that the electric field was not intense enough to create a charged vacuum.
- (B) Scientists assembled a superheavy atomic nucleus next to a vacuum, but found that no virtual particles were created in the vacuum's region of space.
- (C) Scientists assembled a superheavy atomic nucleus next to a vacuum, but found that they could not then detect any real particles in the vacuum's region of space.
- (D) Scientists introduced a virtual electron and a virtual positron into a vacuum's region of space, but found that the vacuum did not then fluctuate.
- (E) Scientists introduced a real electron and a real positron into a vacuum's region of space, but found that the total energy of the space increased by the energy equivalent of the mass of the particles.

GO ON TO THE NEXT PAGE.

Simone de Beauvoir's work greatly influenced Betty Friedan's—indeed, made it possible. Why, then, was it Friedan who became the prophet of women's emancipation in the United States? Political conditions, as well as a certain anti-intellectual bias, prepared Americans and the American media to better receive Friedan's deradicalized and highly pragmatic *The Feminine Mystique*, published in 1963, than Beauvoir's theoretical reading of women's situation in *The Second Sex*. In 1953 when *The Second Sex* first appeared in translation in the United States, the country had entered the silent, fearful fortress of the anticommunist McCarthy years (1950–1954), and Beauvoir was suspected of Marxist sympathies. Even *The Nation*, a generally liberal magazine, warned its readers against "certain political leanings" of the author. Open acknowledgement of the existence of women's oppression was too radical for the United States in the fifties, and Beauvoir's conclusion, that change in women's economic condition, though insufficient by itself, "remains the basic factor" in improving women's situation, was particularly unacceptable.

24. According to the passage, one difference between *The Feminine Mystique* and *The Second Sex* is that Friedan's book
- (A) rejects the idea that women are oppressed
 - (B) provides a primarily theoretical analysis of women's lives
 - (C) does not reflect the political beliefs of its author
 - (D) suggests that women's economic condition has no impact on their status
 - (E) concentrates on the practical aspects of the question of women's emancipation
25. The author quotes from *The Nation* most probably in order to
- (A) modify an earlier assertion
 - (B) point out a possible exception to her argument
 - (C) illustrate her central point
 - (D) clarify the meaning of a term
 - (E) cite an expert opinion

26. It can be inferred from the passage that which of the following is not a factor in the explanation of why *The Feminine Mystique* was received more positively in the United States than was *The Second Sex*?
- (A) By 1963 political conditions in the United States had changed.
 - (B) Friedan's book was less intellectual and abstract than Beauvoir's.
 - (C) Readers did not recognize the powerful influence of Beauvoir's book on Friedan's ideas.
 - (D) Friedan's approach to the issue of women's emancipation was less radical than Beauvoir's.
 - (E) American readers were more willing to consider the problem of the oppression of women in the sixties than they had been in the fifties.
27. According to the passage, Beauvoir's book asserted that the status of women
- (A) is the outcome of political oppression
 - (B) is inherently tied to their economic condition
 - (C) can be best improved under a communist government
 - (D) is a theoretical, rather than a pragmatic, issue
 - (E) is a critical area of discussion in Marxist economic theory

GO ON TO THE NEXT PAGE.

Directions: Each question below consists of a word
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

Notes: Some of the questions require you to distinguish
shades of meaning; be sure to consider all the
shades before deciding which one is best.

32. STERILIZE: (A) uncover (B) irritate
(C) contaminate (D) operate (E) agitate

33. INADVERTENT: (A) well known
(B) quite similar (C) fortunate
(D) normal (E) intentional

34. SUBLIMINAL: (A) adroit (B) gentle
(C) downcast (D) able to be manipulated
(E) at a perceptible level

35. PLACATE: (A) avert (B) antagonize
(C) procure (D) subside (E) revolt

36. INUNDATE: (A) drain (B) erupt (C) exit
(D) decelerate (E) disturb

37. FLOURISH:
(A) lack of consistency
(B) lack of embellishment
(C) lack of sense
(D) lack of spontaneity
(E) lack of substance

34. SUMMARILY:
(A) after long deliberation
(B) with benevolent intent
(C) in general disagreement
(D) under close scrutiny
(E) from questionable premises

35. STOLID: (A) excitable (B) friendly
(C) slender (D) brittle (E) weak

36. IDYLL:
(A) negative appraisal
(B) pedestrian argument
(C) object created for a purpose
(D) experience fraught with tension
(E) action motivated by greed

37. ASPERITY:
(A) failure of imagination
(B) brevity of speech
(C) sureness of judgment
(D) mildness of temper
(E) lack of beauty

38. DESULTORY:
(A) highly inimical
(B) cheerfully accepted
(C) strongly highlighted
(D) lightly considered
(E) strictly methodical

SECTION 4

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. Aspartame, a new artificial sugar substitute, is only — replacement for saccharin because, unlike saccharin, it breaks down and loses its sweetening characteristics at high temperatures, making it — for baking.
(A) an interim..ideal
(B) an apparent..excellent
(C) a potential..versatile
(D) a significant..problematic
(E) a partial..unsuitable
2. Trapped thousands of years ago in Antarctic ice, recently discovered air bubbles are — time capsules filled with information for scientists who chart the history of the atmosphere.
(A) inconsequential (B) broken (C) veritable
(D) resplendent (E) impenetrable
3. In the days before the mass marketing of books, censorship was — source of —, which helped the sale of the book and inspired Ralph Waldo Emerson to remark: "Every burned book enlightens the world."
(A) a respected..opinion
(B) a constant..guidance
(C) a prime..publicity
(D) an unnoticed..opposition
(E) an unpromising..criticism
4. It was not only the — of geologists that — earlier development of the revolutionary idea that the Earth's continents were moving plates; classical physicists, who could not then explain the mechanism, had declared continental movement impossible.
(A) indecisiveness..challenged
(B) radicalism..detected
(C) conservatism..hindered
(D) assumptions..hastened
(E) resistance..mandated
5. Although often extremely critical of the medical profession as a whole, people are rarely willing to treat their personal doctors with equal —.
(A) impetuosity (B) sarcasm (C) mockery
(D) contempt (E) condescension
6. Aalto, like other modernists, believed that form follows function; consequently, his furniture designs asserted the — of human needs, and the furniture's form was — human use.
(A) universality..refined by
(B) importance..relegated to
(C) rationale..emphasized by
(D) primacy..determined by
(E) variability..reflected in
7. A — acceptance of contemporary forms of social behavior has misled a few into believing that values in conflict with the present age are for all practical purposes —.
(A) casual..reliable
(B) superficial..trenchant
(C) complacent..superseded
(D) cautious..redemptive
(E) plaintive..redundant

GO ON TO THE NEXT PAGE.

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. TEACHER : CERTIFICATION ::
(A) driver : license (B) officer : handcuffs
(C) librarian : book (D) mechanic : tool
(E) architect : blueprint
9. FOOD : NOURISH :: (A) organ : secrete
(B) fluids : circulate (C) cells : degenerate
(D) antibodies : protect (E) fats : saturate
10. HACK : CARVE :: (A) grind : polish
(B) snip : mince (C) hew : fell
(D) whet : blunt (E) gouge : engrave
11. DETOXIFY : POISON :: (A) determine : certainty
(B) destabilize : deviance (C) disguise : costume
(D) dissolve : liquid (E) dehydrate : water
12. SUPERIMPOSE : ABOVE ::
(A) permeate : beside (B) focus : around
(C) insert : between (D) splice : below
(E) fuse : behind
13. TAMPER : ADJUST ::
(A) misrepresent : communicate
(B) warp : deform
(C) confess : tell
(D) mar : deface
(E) undermine : stop
14. METAPHOR : LITERAL ::
(A) biography : accurate
(B) melody : spoken
(C) poem : rhythmic
(D) anthem : patriotic
(E) ballet : intricate
15. COURAGE : RASHNESS ::
(A) generosity : prodigality
(B) temperance : modesty
(C) mettle : spirit
(D) honor : humility
(E) compassion : contempt
16. PRESCIENCE : FUTURE ::
(A) irrationality : sanity
(B) predictability : past
(C) irascibility : emotions
(D) erudition : esoterica
(E) talkativeness : loquacity

GO ON TO THE NEXT PAGE.

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.

One of the questions of interest in the study of the evolution of spiders is whether the weaving of orb webs evolved only once or several times. About half the 35,000 known kinds of spiders make webs; a third of the web weavers make orb webs. Since most orb-weavers belong either to the Araneidae or the Uloboridae families, the origin of the orb web can be determined only by ascertaining whether the families are related.

Recent taxonomic analysis of individuals from both families indicates that the families evolved from different ancestors, thereby contradicting Wiegle's theory. This theory postulates that the families must be related, based on the assumption that complex behavior, such as web building, could evolve only once. According to Kullman, web structure is the only characteristic that suggests a relationship between families. The families differ in appearance, structure of body hair, and arrangement of eyes. Only Uloborids lack venom glands. Further identification and study of characteristic features will undoubtedly answer the question of the evolution of the orb web.

17. The primary purpose of the passage is to

- (A) settle the question of whether orb webs evolved once or more than once
- (B) describe scientific speculation concerning an issue related to the evolution of orb webs
- (C) analyze the differences between the characteristic features of spiders in the Araneidae and Uloboridae families
- (D) question the methods used by earlier investigators of the habits of spiders
- (E) demonstrate that Araneidae spiders are not related to Uloboridae spiders

18. It can be inferred from the passage that all orb-weaving spiders belong to types of spiders that

- (A) lack venom glands
- (B) are included either in the Uloboridae or Araneidae families
- (C) share few characteristic features with other spider types
- (D) comprise less than a third of all known types of spiders
- (E) are more recently evolved than other types of spiders

19. According to the passage, members of the Araneidae family can be distinguished from members of the Uloboridae family by all of the following EXCEPT

- (A) the presence of venom glands
- (B) the type of web they spin
- (C) the structure of their body hair
- (D) the arrangement of their eyes
- (E) their appearance

20. Which of the following statements, if true, most weakens Wiegle's theory that complex behavior could evolve only once?

- (A) Horses, introduced to the New World by the Spaniards, thrived under diverse climatic conditions.
- (B) Plants of the Palmaceae family, descendants of a common ancestor, evolved unique seed forms even though the plants occupy similar habitats throughout the world.
- (C) All mammals are descended from a small, rodentlike animal whose physical characteristics in some form are found in all its descendants.
- (D) Plants in the Cactaceae and Euphorbiaceae families, although they often look alike and have developed similar mechanisms to meet the rigors of the desert, evolved independently.
- (E) The Cuban anole, which was recently introduced in the Florida wilds, is quickly replacing the native Florida chameleon because the anole has no competitors.

GO ON TO THE NEXT PAGE.

"Popular art" has a number of meanings, impossible to define with any precision, which range from folklore to junk. The poles are clear enough, but the middle tends to blur. The Hollywood Western of the 1930's, for example, has elements of folklore, but is closer to junk than to high art or folk art. There can be great trash, just as there is bad high art. The musicals of George Gershwin are great popular art, never aspiring to high art. Schubert and Brahms, however, used elements of popular music—folk themes—in works clearly intended as high art. The case of Verdi is a different one: he took a popular genre—bourgeois melodrama set to music (an accurate definition of nineteenth-century opera)—and, without altering its fundamental nature, transmuted it into high art. This remains one of the greatest achievements in music, and one that cannot be fully appreciated without recognizing the essential trashiness of the genre.

As an example of such a transmutation, consider what Verdi made of the typical political elements of nineteenth-century opera. Generally in the plots of these operas, a hero or heroine—usually portrayed only as an individual, unfettered by class—is caught between the immoral corruption of the aristocracy and the doctrinaire rigidity or secret greed of the leaders of the proletariat. Verdi transforms this naïve and unlikely formulation with music of extraordinary energy and rhythmic vitality, music more subtle than it seems at first hearing. There are scenes and arias that still sound like calls to arms and were clearly understood as such when they were first performed. Such pieces lend an immediacy to the otherwise veiled political message of these operas and call up feelings beyond those of the opera itself.

Or consider Verdi's treatment of character. Before Verdi, there were rarely any characters at all in musical drama, only a series of situations which allowed the singers to express a series of emotional states. Any attempt to find coherent psychological portrayal in these operas is misplaced ingenuity. The only coherence was the singer's vocal technique: when the cast changed, new arias were almost always substituted, generally adapted from other operas. Verdi's characters, on the other hand, have genuine consistency and integrity, even if, in many cases, the consistency is that of pasteboard melodrama. The integrity of the character is achieved through the music: once he had become established, Verdi did not rewrite his music for different singers or countenance alterations or substitutions of somebody else's arias in one of his operas, as every eighteenth-century composer had done. When he revised an opera, it was only for dramatic economy and effectiveness.

21. The author refers to Schubert and Brahms in order to suggest
 - (A) that their achievements are no less substantial than those of Verdi
 - (B) that their works are examples of great trash
 - (C) the extent to which Schubert and Brahms influenced the later compositions of Verdi
 - (D) a contrast between the conventions of nineteenth-century opera and those of other musical forms
 - (E) that popular music could be employed in compositions intended as high art
22. According to the passage, the immediacy of the political message in Verdi's operas stems from the
 - (A) vitality and subtlety of the music
 - (B) audience's familiarity with earlier operas
 - (C) portrayal of heightened emotional states
 - (D) individual talents of the singers
 - (E) verisimilitude of the characters
23. According to the passage, all of the following characterize musical drama before Verdi EXCEPT
 - (A) arias tailored to a particular singer's ability
 - (B) adaptation of music from other operas
 - (C) psychological inconsistency in the portrayal of characters
 - (D) expression of emotional states in a series of dramatic situations
 - (E) music used for the purpose of defining a character

GO ON TO THE NEXT PAGE.

24. It can be inferred that the author regards Verdi's revisions to his operas with
- (A) regret that the original music and texts were altered
 - (B) concern that many of the revisions altered the plots of the original work
 - (C) approval for the intentions that motivated the revisions
 - (D) puzzlement, since the revisions seem largely insignificant
 - (E) enthusiasm, since the revisions were aimed at reducing the conventionality of the operas' plots
25. According to the passage, one of Verdi's achievements within the framework of nineteenth-century opera and its conventions was to
- (A) limit the extent to which singers influenced the musical composition and performance of his operas
 - (B) use his operas primarily as forums to protest both the moral corruption and dogmatic rigidity of the political leaders of his time
 - (C) portray psychologically complex characters shaped by the political environment surrounding them
 - (D) incorporate elements of folklore into both the music and plots of his operas
 - (E) introduce political elements into an art form that had traditionally avoided political content
26. Which of the following best describes the relationship of the first paragraph of the passage to the passage as a whole?
- (A) It provides a group of specific examples from which generalizations are drawn later in the passage.
 - (B) It leads to an assertion that is supported by examples later in the passage.
 - (C) It defines terms and relationships that are challenged in an argument later in the passage.
 - (D) It briefly compares and contrasts several achievements that are examined in detail later in the passage.
 - (E) It explains a method of judging a work of art, a method that is used later in the passage.
27. It can be inferred that the author regards the independence from social class of the heroes and heroines of nineteenth-century opera as
- (A) an idealized but fundamentally accurate portrayal of bourgeois life
 - (B) a plot convention with no real connection to political reality
 - (C) a plot refinement unique to Verdi
 - (D) a symbolic representation of the position of the bourgeoisie relative to the aristocracy and the proletariat
 - (E) a convention largely seen as irrelevant by audiences

GO ON TO THE NEXT PAGE.

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. PERISH: (A) move on (B) survive
(C) come after (D) transgress (E) strive
29. UNPREDICTABLE: (A) sensitive
(B) compliant (C) dependable (D) mature
(E) laudable
30. TRIBUTE: (A) denunciation (B) torment
(C) betrayal (D) menace (E) penalty
31. FINESSE: (A) indecision
(B) heavy-handedness (C) extroversion
(D) extravagance (E) competitiveness
32. SAP: (A) reinstate (B) condone (C) bolster
(D) satiate (E) facilitate
33. CONVOLUTED: (A) symmetrical
(B) separate (C) straightforward
(D) completely flexible (E) consistently calm
34. MITIGATE: (A) exacerbate (B) preponderate
(C) accelerate (D) elevate (E) extrapolate
35. TORPOR: (A) rigidity (B) randomness
(C) agility (D) obscurity (E) vigor
36. ZENITH: (A) decline (B) anticlimax
(C) foundation (D) nadir (E) abyss
37. VENAL: (A) pleasant (B) clever
(C) healthy (D) unstinting (E) incorruptible
38. PERIPATETIC: (A) stationary (B) enclosed
(C) discrete (D) essential (E) careful

FOR GENERAL TEST 13 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1		Section 4			
Number	Answer	P +	Number	Answer	P +
1	D	97	1	E	91
2	C	62	2	C	74
3	D	63	3	C	80
4	C	60	4	D	61
5	A	47	5	D	55
6	E	47	6	D	50
7	D	45	7	C	41
8	B	95	8	A	98
9	B	85	9	D	92
10	D	76	10	E	84
11	C	71	11	E	79
12	D	58	12	C	73
13	B	65	13	A	37
14	D	48	14	B	47
15	E	34	15	A	36
16	B	18	18	D	29
17	A	53	17	B	67
18	E	73	18	D	29
19	E	59	19	B	79
20	D	51	20	D	65
21	C	63	21	E	76
22	B	62	22	A	59
23	C	37	23	C	55
24	D	50	24	C	64
25	C	63	25	A	23
26	C	35	26	B	40
27	B	69	27	C	29
28	C	95	28	B	91
29	A	84	29	C	88
30	D	86	30	A	83
31	B	68	31	B	80
32	A	51	32	C	53
33	B	46	33	C	63
34	A	38	34	A	44
35	A	36	35	E	34
36	D	33	36	D	25
37	E	24	37	E	28
38	E	13	38	A	25

QUANTITATIVE ABILITY					
Section 2		Section 5			
Number	Answer	P +	Number	Answer	P +
1	A	82	1	A	87
2	B	80	2	C	80
3	B	76	3	B	90
4	B	74	4	D	78
5	A	74	5	A	77
6	C	72	6	B	76
7	B	76	7	C	74
8	B	74	8	A	44
9	B	60	9	A	56
10	C	48	10	D	48
11	A	63	11	B	45
12	A	70	12	C	37
13	D	39	13	D	33
14	C	43	14	B	38
15	D	28	15	D	21
16	C	88	16	D	90
17	B	79	17	A	87
18	C	85	18	D	76
19	B	66	19	C	81
20	D	63	20	D	65
21	A	89	21	A	97
22	C	88	22	C	85
23	B	70	23	D	57
24	E	61	24	D	80
25	D	49	25	D	63
26	D	71	26	D	69
27	E	48	27	B	73
28	E	38	28	B	63
29	B	33	29	E	54
30	A	29	30	A	47

ANALYTICAL ABILITY					
Section 3		Section 6			
Number	Answer	P +	Number	Answer	P +
1	B	85	1	E	81
2	D	59	2	A	87
3	A	85	3	B	82
4	D	83	4	B	73
5	C	51	5	A	70
6	C	43	6	C	58
7	B	64	7	D	72
8	B	80	8	A	90
9	C	73	9	C	53
10	D	64	10	B	80
11	C	83	11	B	53
12	B	60	12	C	37
13	B	61	13	B	62
14	B	66	14	C	36
15	C	38	15	C	56
16	A	55	16	B	47
17	D	71	17	A	49
18	B	38	18	A	30
19	A	21	19	D	46
20	D	48	20	C	40
21	A	34	21	A	49
22	B	19	22	A	26
23	D	37	23	D	45
24	D	35	24	B	52
25	A	42	25	C	40

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 14

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. Psychology has slowly evolved into an ----- scientific discipline that now functions autonomously with the same privileges and responsibilities as other sciences.

(A) independent (B) unusual
(C) outmoded (D) uncontrolled
(E) inactive

2. A major goal of law, to deter potential criminals by punishing wrongdoers, is not served when the penalty is so seldom invoked that it ----- to be a ----- threat.

(A) tends.. serious
(B) appears.. real
(C) ceases.. credible
(D) fails.. deceptive
(E) seems.. coercive

3. When people are happy, they tend to give ----- interpretations of events they witness: the eye of the beholder is ----- by the emotions of the beholder.

(A) charitable.. colored
(B) elaborate.. disquieted
(C) conscientious.. deceived
(D) vague.. sharpened
(E) coherent.. confused

4. Even those who disagreed with Carmen's views rarely faulted her for expressing them, for the positions she took were as ----- as they were controversial.

(A) complicated (B) political
(C) subjective (D) commonplace
(E) thoughtful

5. New research on technology and public policy focuses on how seemingly ----- design features, generally overlooked in most analyses of public works projects or industrial machinery, actually ----- social choices of profound significance.

(A) insignificant.. mask
(B) inexpensive.. produce
(C) innovative.. represent
(D) ingenious.. permit
(E) inopportune.. hasten

6. Paradoxically, Robinson's excessive denials of the worth of early works of science fiction suggest that she has become quite ----- them.

(A) reflective about (B) enamored of
(C) skeptical of (D) encouraged by
(E) offended by

7. Cézanne's delicate watercolor sketches often served as ----- of a subject, a way of gathering fuller knowledge before the artist's final engagement of the subject in an oil painting.

(A) an abstraction
(B) an enhancement
(C) a synthesis
(D) a reconnaissance
(E) a transcription

GO ON TO THE NEXT PAGE.

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. HAMMER : CARPENTER ::

- (A) brick : mason
- (B) road : driver
- (C) kitchen : cook
- (D) letter : secretary
- (E) knife : butcher

9. EMBRACE : AFFECTION ::

- (A) jeer : sullenness
- (B) glower : ridicule
- (C) frown : displeasure
- (D) cooperation : respect
- (E) flattery : love

10. PLUMMET : FALL :: (A) radiate : glow

- (B) converge : attract
- (C) flounder : move
- (D) swerve : turn
- (E) flow : ebb

11. GRAZING : FORAGERS ::

- (A) skipping : readers
- (B) strolling : prisoners
- (C) weeding : gardeners
- (D) stalking : hunters
- (E) resting : pickers

12. TEXT : EXTEMPORIZE ::

- (A) score : improvise
- (B) style : decorate
- (C) exhibit : demonstrate
- (D) diagram : realize
- (E) sketch : outline

13. PERTINENT : RELEVANCE ::

- (A) insistent : rudeness
- (B) benevolent : perfection
- (C) redundant : superfluity
- (D) prevalent : universality
- (E) aberrant : uniqueness

14. ASSERT : BELABOR ::

- (A) tend : fuss
- (B) refine : temper
- (C) describe : demean
- (D) resemble : portray
- (E) contaminate : purge

15. TRANSGRESSION : MORALITY ::

- (A) mistake : probity
- (B) invitation : hospitality
- (C) gift : generosity
- (D) presumption : propriety
- (E) misconception : curiosity

16. BLOWHARD : BOASTFUL ::

- (A) cynic : perspicacious
- (B) highbrow : grandiloquent
- (C) exhibitionist : embarrassed
- (D) misanthrope : affected
- (E) toady : obsequious

GO ON TO THE NEXT PAGE.

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.

(5) Ragtime is a musical form that synthesizes folk melodies and musical techniques into a brief quadrille-like structure, designed to be played—exactly as written—on the piano. A strong analogy exists between European composers like Ralph Vaughan Williams, Edvard Grieg, and Anton Dvořák who combined folk tunes and their own original materials in larger compositions and the pioneer ragtime composers in the United States. Composers like Scott Joplin and James Scott were in a sense collectors or musicologists, collecting dance and folk music in Black communities and consciously shaping it into brief suites or anthologies called piano rags.

(10) It has sometimes been charged that ragtime is mechanical. For instance, Wilfred Mellers comments, “rags were transferred to the pianola roll and, even if not played by a machine, should be played like a machine, with meticulous precision.” However, there is no reason to assume that ragtime is inherently mechanical simply because commercial manufacturers applied a mechanical recording method to ragtime, the only way to record pianos at that date. Ragtime’s not a mechanical precision, and it is not precision limited to the style of performance. It arises from ragtime’s following a well-defined form and obeying simple rules within that form.

(15) The classic formula for the piano rag disposes three to five themes in sixteen-bar strains, often organized with repeats. The rag opens with a bright, memorable strain or theme, followed by a similar theme, leading to a trio of marked lyrical character, with the structure concluded by a lyrical strain that parallels the rhythmic developments of the earlier themes. The aim of the structure is to rise from one theme to another in a stair-step manner, ending on a note of triumph or exhilaration.

(20) (30) Typically, each strain is divided into two 8-bar segments that are essentially alike, so the rhythmic-melodic unit of ragtime is only eight bars of 2/4 measure. Therefore, themes must be brief with clear, sharp melodic figures. Not concerned with development of musical themes, the (40) ragtime composer instead sets a theme down intact, in finished form, and links it to various related themes. Tension in ragtime compositions arises from a polarity between two basic ingredients: a continuous bass—called by jazz musicians a boom-chick bass—in the (45) pianist’s left hand, and its melodic, syncopated counterpart in the right hand.

(25) (35) (40) (45) (50) Ragtime remains distinct from jazz both as an instrumental style and as a genre. Ragtime style stresses a pattern of repeated rhythms, not the constant inventions and variations of jazz. As a genre, ragtime requires strict attention to structure, not inventiveness or virtuosity. It exists as a tradition, a set of conventions, a body of written scores, separate from the individual players associated with it. In this sense ragtime is more akin to folk music of the nineteenth century than to jazz.

17. Which of the following best describes the main purpose of the passage?
- (A) To contrast ragtime music and jazz
 - (B) To acknowledge and counter significant adverse criticisms of ragtime music
 - (C) To define ragtime music as an art form and describe its structural characteristics
 - (D) To review the history of ragtime music and analyze ragtime’s effect on listeners
 - (E) To explore the similarities between ragtime music and certain European musical compositions
18. According to the passage, each of the following is a characteristic of ragtime compositions that follow the classic ragtime formula EXCEPT
- (A) syncopation
 - (B) well-defined melodic figures
 - (C) rising rhythmic-melodic intensity
 - (D) full development of musical themes
 - (E) a bass line distinct from the melodic line

GO ON TO THE NEXT PAGE.

19. According to the passage, Ralph Vaughan Williams, Anton Dvořák, and Scott Joplin are similar in that they all
- (A) conducted research into musicological history
 - (B) wrote original compositions based on folk tunes
 - (C) collected and recorded abbreviated piano suites
 - (D) created intricate sonata-like musical structures
 - (E) explored the relations between Black music and continental folk music
20. The author rejects the argument that ragtime is a mechanical music because that argument
- (A) overlooks the precision required of the ragtime player
 - (B) does not accurately describe the sound of ragtime pianola music
 - (C) confuses the means of recording and the essential character of the music
 - (D) exaggerates the influence of the performance style of professional ragtime players on the reputation of the genre
 - (E) improperly identifies commercial ragtime music with the subtler classic ragtime style
21. It can be inferred that the author of the passage believes that the most important feature of ragtime music is its
- (A) commercial success
 - (B) formal structure
 - (C) emotional range
 - (D) improvisational opportunities
 - (E) role as a forerunner of jazz
22. It can be inferred from the passage that the essential nature of ragtime has been obscured by commentaries based on
- (A) the way ragtime music was first recorded
 - (B) interpretations of ragtime by jazz musicians
 - (C) the dance fashions that were contemporary with ragtime
 - (D) early reviewers' accounts of characteristic structure
 - (E) the musical sources used by Scott Joplin and James Scott
23. Which of the following is most nearly analogous in source and artistic character to a ragtime composition as described in the passage?
- (A) Symphonic music derived from complex jazz motifs
 - (B) An experimental novel based on well-known cartoon characters
 - (C) A dramatic production in which actors invent scenes and improvise lines
 - (D) A ballet whose disciplined choreography is based on folk-dance steps
 - (E) A painting whose abstract shapes evoke familiar objects in a natural landscape

GO ON TO THE NEXT PAGE.

*Line
(5)*

Echolocating bats emit sounds in patterns—characteristic of each species—that contain both frequency-modulated (FM) and constant-frequency (CF) signals. The broadband FM signals and the narrowband CF signals travel out to a target, reflect from it, and return to the hunting bat. In this process of transmission and reflection, the sounds are changed, and the changes in the echoes enable the bat to perceive features of the target.

(10) The FM signals report information about target characteristics that modify the timing and the fine frequency structure, or spectrum, of echoes—for example, the target's size, shape, texture, surface structure, and direction in space. Because of their narrow bandwidth, CF signals portray only the target's presence and, in the case of some bat species, its motion relative to the bat's. Responding to changes in the CF echo's frequency, bats of some species correct in flight for the direction and velocity of their moving prey.

24. According to the passage, the information provided to the bat by CF echoes differs from that provided by FM echoes in which of the following ways?

- (A) Only CF echoes alert the bat to moving targets.
- (B) Only CF echoes identify the range of widely spaced targets.
- (C) Only CF echoes report the target's presence to the bat.
- (D) In some species, CF echoes enable the bat to judge whether it is closing in on its target.
- (E) In some species, CF echoes enable the bat to discriminate the size of its target and the direction in which the target is moving.

25. According to the passage, the configuration of the target is reported to the echolocating bat by changes in the

- (A) echo spectrum of CF signals
- (B) echo spectrum of FM signals
- (C) direction and velocity of the FM echoes
- (D) delay between transmission and reflection of the CF signals
- (E) relative frequencies of the FM and the CF echoes

26. The author presents the information concerning bat sonar in a manner that could best be described as

- (A) argumentative (B) commendatory
- (C) critical (D) disbelieving (E) objective

27. Which of the following best describes the organization of the passage?

- (A) A fact is stated, a process is outlined, and specific details of the process are described.
- (B) A fact is stated, and examples suggesting that a distinction needs correction are considered.
- (C) A fact is stated, a theory is presented to explain that fact, and additional facts are introduced to validate the theory.
- (D) A fact is stated, and two theories are compared in light of their explanations of this fact.
- (E) A fact is stated, a process is described, and examples of still another process are illustrated in detail.

GO ON TO THE NEXT PAGE.

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. CONSTRAIN: (A) release (B) sever
(C) abandon (D) unload (E) agree
29. SQUAT: (A) dim and dark (B) tall and thin
(C) misty and vague (D) sharp and shrill
(E) flat and narrow
30. OPAQUENESS: (A) opalescence (B) clarity
(C) density (D) magnetism (E) latency
31. COMELINESS:
(A) disagreement
(B) humiliation
(C) ambition
(D) unattractiveness
(E) shortsightedness

32. PROFUNDITY: (A) speciousness
(B) solicitude (C) succinctness
(D) superficiality (E) solidarity
33. BURGEON: (A) subside (B) esteem
(C) placate (D) tempt (E) wean
34. SINEWY: (A) new (B) weak
(C) corrupt (D) subtle (E) substantial
35. EXHAUSTIVE: (A) incomplete (B) energetic
(C) strong (D) indecisive (E) conserving
36. PINE: (A) fall apart (B) become invigorated
(C) become enraged (D) move ahead
(E) stand firm
37. OBSTINACY: (A) persuasiveness
(B) tractability (C) antipathy
(D) neutrality (E) magnanimity
38. EXACT: (A) deny (B) judge (C) deprive
(D) forgive (E) establish

SECTION 6

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. Though it would be ____ to expect Barnard to have worked out all of the limitations of his experiment, he must be ____ for his neglect of quantitative analysis.
(A) unjust..pardoned
(B) impudent..dismissed
(C) unrealistic..criticized
(D) pointless..examined
(E) inexcusable..recognized
2. The hierarchy of medical occupations is in many ways a ____ system; its strata remain ____ and the practitioners in them have very little vertical mobility.
(A) health..skilled
(B) delivery..basic
(C) regimental..flexible
(D) training..inferior
(E) caste..intact
- *3. Noting the murder victim's flaccid musculature and pearlike figure, she deduced that the unfortunate fellow had earned his living in some ____ occupation.
(A) treacherous
(B) prestigious
(C) ill-paying
(D) illegitimate
(E) sedentary
4. In Germany her startling powers as a novelist are widely ____, but she is almost unknown in the English-speaking world because of the difficulties of ____ her eccentric prose.
(A) ignored..editing
(B) admired..translating
(C) espoused..revealing
(D) obscured..comprehending
(E) dispersed..transcribing
5. Liberty is not easy, but far better to be an ____ fox, hungry and threatened on its hill, than a ____ canary, safe and secure in its cage.
(A) unfriendly..fragile
(B) aging..young
(C) angry..content
(D) imperious..lethargic
(E) unfettered..well-fed
6. Remelting old metal cans rather than making primary aluminum from bauxite ore shipped from overseas saves producers millions of dollars in ____ and production costs.
(A) distribution
(B) salvage
(C) storage
(D) procurement
(E) research
7. Johnson never ____ to ignore the standards of decent conduct mandated by company policy if ____ compliance with instructions from his superiors enabled him to do so, whatever the effects on his subordinates.
(A) deigned..tacit
(B) attempted..halfhearted
(C) intended..direct
(D) scrupled..literal
(E) wished..feigned

GO ON TO THE NEXT PAGE.

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. SHOULDER : ROADWAY ::

- (A) margin : page
- (B) cord : weaving
- (C) socket : bulb
- (D) curtain : scenery
- (E) handle : pitcher

9. TADPOLE : FROG :: (A) worm : beetle

- (B) caterpillar : butterfly
- (C) carrion : vulture
- (D) calf : horse
- (E) drone : honeybee

10. CIRCUMFERENCE : CIRCLE ::

- (A) degree : angle
- (B) area : cube
- (C) perimeter : rectangle
- (D) height : cylinder
- (E) arc : ellipse

11. HEDONIST : PLEASURE ::

- (A) humanist : pride
- (B) ascetic : tolerance
- (C) stoic : sacrifice
- (D) recluse : privacy
- (E) idealist : compromise

12. NONCONFORMIST : NORM ::

- (A) pessimist : rule
- (B) extremist : conviction
- (C) criminal : motive
- (D) deviant : dogma
- (E) heretic : orthodoxy

13. INVEST : CAPITAL :: (A) gamble : stake

- (B) tax : income
- (C) play : sport
- (D) race : record
- (E) create : product

14. PREEN : SELF-SATISFACTION ::

- (A) fume : anger
- (B) inhibit : spontaneity
- (C) regret : guilt
- (D) resent : cooperation
- (E) brood : resolution

15. DIGRESSIVE : STATEMENT ::

- (A) connotative : definition
- (B) slanderous : slur
- (C) tangential : presupposition
- (D) biased : opinion
- (E) circuitous : route

16. CHICANERY : CLEVER ::

- (A) expertise : knowledgeable
- (B) certainty : doubtful
- (C) gullibility : skeptical
- (D) machination : heedless
- (E) tactlessness : truthful

GO ON TO THE NEXT PAGE.

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.

The social sciences are less likely than other intellectual enterprises to get credit for their accomplishments. Arguably, this is so because the theories and conceptual constructs of the social sciences are especially accessible: human intelligence apprehends truths about human affairs with particular facility. And the discoveries of the social sciences, once isolated and labeled, are quickly absorbed into conventional wisdom, whereupon they lose their distinctiveness as scientific advances.

This underappreciation of the social sciences contrasts oddly with what many see as their overutilization. Game theory is pressed into service in studies of shifting international alliances. Evaluation research is called upon to demonstrate successes or failures of social programs. Models from economics and demography become the definitive tools for examining the financial base of social security. Yet this rush into practical applications is itself quite understandable: public policy must continually be made, and policymakers rightly feel that even tentative findings and untested theories are better guides to decision-making than no findings and no theories at all.

17. The author is primarily concerned with
- (A) advocating a more modest view, and less widespread utilization, of the social sciences
 - (B) analyzing the mechanisms for translating discoveries into applications in the social sciences
 - (C) dissolving the air of paradox inherent in human beings studying themselves
 - (D) explaining a peculiar dilemma that the social sciences are in
 - (E) maintaining a strict separation between pure and applied social science
18. Which of the following is a social science discipline that the author mentions as being possibly overutilized?
- (A) Conventional theories of social change
 - (B) Game theory
 - (C) Decision-making theory
 - (D) Economic theories of international alliances
 - (E) Systems analysis

19. It can be inferred from the passage that, when speaking of the "overutilization" (line 11) of the social sciences, the author is referring to the
- (A) premature practical application of social science advances
 - (B) habitual reliance on the social sciences even where common sense would serve equally well
 - (C) practice of bringing a greater variety of social science disciplines to bear on a problem than the nature of the problem warrants
 - (D) use of social science constructs by people who do not fully understand them
 - (E) tendency on the part of social scientists to recast everyday truths in social science jargon
20. The author confronts the claim that the social sciences are being overutilized with
- (A) proof that overextensions of social science results are self-correcting
 - (B) evidence that some public policy is made without any recourse to social science findings or theories
 - (C) a long list of social science applications that are perfectly appropriate and extremely fruitful
 - (D) the argument that overutilization is by and large the exception rather than the rule
 - (E) the observation that this practice represents the lesser of two evils under existing circumstances

GO ON TO THE NEXT PAGE.

Line
(5) The term "Ice Age" may give a wrong impression. The epoch that geologists know as the Pleistocene and that spanned the 1.5 to 2.0 million years prior to the current geologic epoch was not one long continuous glaciation, but a period of oscillating climate with ice advances punctuated by times of interglacial climate not very different from the climate experienced now. Ice sheets that derived from an ice cap centered on northern Scandinavia reached southward to Central Europe. And
(10) beyond the margins of the ice sheets, climatic oscillations affected most of the rest of the world; for example, in the deserts, periods of wetter conditions (pluvials) contrasted with drier, interpluvial periods. Although the time involved is so short, about 0.04 percent of the total
(15) age of the Earth, the amount of attention devoted to the Pleistocene has been incredibly large, probably because of its immediacy, and because the epoch largely coincides with the appearance on Earth of humans and their immediate ancestors.

(20) There is no reliable way of dating much of the Ice Age. Geological dates are usually obtained by using the rates of decay of various radioactive elements found in minerals. Some of these rates are suitable for very old rocks but involve increasing errors when used for young rocks; others are suitable for very young rocks and errors increase rapidly in older rocks. Most of the Ice Age spans a period of time for which no element has an appropriate decay rate.

(25) Nevertheless, researchers of the Pleistocene epoch have developed all sorts of more or less fanciful model schemes of how they would have arranged the Ice Age had they been in charge of events. For example, an early classification of Alpine glaciation suggested the existence
(30) there of four glaciations, named the Günz, Mindel, Riss, and Würm. This succession was based primarily on a series of deposits and events not directly related to glacial and interglacial periods, rather than on the more usual modern method of studying biological remains found in interglacial beds themselves interstratified
(35) within glacial deposits. Yet this succession was forced willy-nilly onto the glaciated parts of Northern Europe, where there are partial successions of true glacial ground moraines and interglacial deposits, with hopes of ultimately piecing them together to provide a complete
(40) Pleistocene succession. Eradication of the Alpine nomenclature is still proving a Herculean task.

(45) There is no conclusive evidence about the relative length, complexity, and temperatures of the various glacial and interglacial periods. We do not know whether we live in a postglacial period or an interglacial period. The chill truth seems to be that we are already past the optimum climate of postglacial time. Studies of certain fossil distributions and of the pollen of certain temperate plants suggest decreases of a degree or two in both summer and winter temperatures and, therefore,
(50) that we may be in the declining climatic phase leading to glaciation and extinction.

21. In the passage, the author is primarily concerned with
- (A) searching for an accurate method of dating the Pleistocene epoch
 - (B) discussing problems involved in providing an accurate picture of the Pleistocene epoch
 - (C) declaring opposition to the use of the term "Ice Age" for the Pleistocene epoch
 - (D) criticizing fanciful schemes about what happened in the Pleistocene epoch
 - (E) refuting the idea that there is no way to tell if we are now living in an Ice Age
22. The "wrong impression" (line 1) to which the author refers is the idea that the
- (A) climate of the Pleistocene epoch was not very different from the climate we are now experiencing
 - (B) climate of the Pleistocene epoch was composed of periods of violent storms
 - (C) Pleistocene epoch consisted of very wet, cold periods mixed with very dry, hot periods
 - (D) Pleistocene epoch comprised one period of continuous glaciation during which Northern Europe was covered with ice sheets
 - (E) Pleistocene epoch had no long periods during which much of the Earth was covered by ice

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23. According to the passage, one of the reasons for the deficiencies of the "early classification of Alpine glaciation" (lines 32-33) is that it was
- (A) derived from evidence that was only tangentially related to times of actual glaciation
 - (B) based primarily on fossil remains rather than on actual living organisms
 - (C) an abstract, imaginative scheme of how the period might have been structured
 - (D) based on unmethodical examinations of randomly chosen glacial biological remains
 - (E) derived from evidence that had been haphazardly gathered from glacial deposits and inaccurately evaluated
24. Which of the following does the passage imply about the "early classification of Alpine glaciation" (lines 32-33)?
- (A) It should not have been applied as widely as it was.
 - (B) It represents the best possible scientific practice, given the tools available at the time.
 - (C) It was a valuable tool, in its time, for measuring the length of the four periods of glaciation.
 - (D) It could be useful, but only as a general guide to the events of the Pleistocene epoch.
 - (E) It does not shed any light on the methods used at the time for investigating periods of glaciation.
25. It can be inferred from the passage that an important result of producing an accurate chronology of events of the Pleistocene epoch would be a
- (A) clearer idea of the origin of the Earth
 - (B) clearer picture of the Earth during the time that humans developed
 - (C) clearer understanding of the reasons for the existence of deserts
 - (D) more detailed understanding of how radioactive dating of minerals works
 - (E) firmer understanding of how the northern polar ice cap developed
26. The author refers to deserts primarily in order to
- (A) illustrate the idea that an interglacial climate is marked by oscillations of wet and dry periods
 - (B) illustrate the idea that what happened in the deserts during the Ice Age had far-reaching effects even on the ice sheets of Central and Northern Europe
 - (C) illustrate the idea that the effects of the Ice Age's climatic variations extended beyond the areas of ice
 - (D) support the view that during the Ice Age sheets of ice covered some of the deserts of the world
 - (E) support the view that we are probably living in a postglacial period
27. The author would regard the idea that we are living in an interglacial period as
- (A) unimportant
 - (B) unscientific
 - (C) self-evident
 - (D) plausible
 - (E) absurd

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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. INSTINCT: (A) hallucination (B) reservation
(C) irrational fear (D) learned response
(E) unobtainable desire
29. SENSATION:
(A) sketchy account
(B) recurring phenomenon
(C) unfinished story
(D) unnoticed event
(E) well-received effort
30. TRANQUILLITY: (A) leniency (B) virtue
(C) pandemonium (D) morbidity
(E) eclecticism
31. PLASTICITY: (A) purity (B) solidity
(C) rigidity (D) sternness (E) massiveness
32. RIFT: (A) bondage (B) capitulation
(C) fidelity (D) consistency (E) reconciliation

33. DESICCATE: (A) lactate (B) hydrate
(C) make appetizing (D) allow to putrify
(E) start to accelerate
34. ERUDITION: (A) boorishness (B) prescience
(C) ignorance (D) wealth (E) simplicity
35. AFFABLE: (A) sentimental (B) disobedient
(C) irascible (D) equivocal (E) underhanded
36. APOCRYPHAL: (A) authenticated
(B) annotated (C) famous (D) restored
(E) sophisticated
37. RECALCITRANT: (A) trustworthy
(B) expectant (C) extravagant (D) capable
(E) amenable
38. HALCYON: (A) future (B) healthy
(C) inane (D) extraordinary (E) miserable

FOR GENERAL TEST 14 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 6		
Number	Answer	P +	Number	Answer	P +
1	A	97	1	C	88
2	C	83	2	E	84
3	A	74	3	E	76
4	E	51	4	B	55
5	A	43	5	E	58
6	B	41	6	D	67
7	O	26	7	D	9
8	O	92	8	A	92
9	O	80	9	B	89
10	O	50	10	C	83
11	O	56	11	D	62
12	A	33	12	E	55
13	C	43	13	A	48
14	A	41	14	E	43
15	O	28	15	E	34
16	E	20	16	E	21
17	O	83	17	D	68
18	O	65	18	B	77
19	B	81	19	A	39
20	C	64	20	E	53
21	B	76	21	B	67
22	A	56	22	O	31
23	O	68	23	A	37
24	O	39	24	A	44
25	B	66	25	B	59
26	E	74	26	C	44
27	A	60	27	D	70
28	A	88	28	O	86
29	B	84	29	D	80
30	B	72	30	C	85
31	O	57	31	C	66
32	O	50	32	E	49
33	A	42	33	B	54
34	B	34	34	C	42
35	A	39	35	C	46
36	B	32	36	A	39
37	B	37	37	E	37
38	O	28	38	E	26

QUANTITATIVE ABILITY					
Section 2			Section 5		
Number	Answer	P +	Number	Answer	P +
1	A	90	1	B	86
2	B	91	2	B	83
3	A	79	3	A	87
4	C	85	4	A	80
5	O	74	5	B	82
6	C	83	6	B	63
7	A	80	7	A	81
8	B	65	8	A	67
9	B	79	9	C	66
10	A	69	10	D	70
11	A	57	11	C	49
12	O	59	12	C	35
13	B	54	13	D	49
14	O	25	14	D	41
15	C	16	15	C	26
16	O	79	16	A	95
17	O	79	17	D	69
18	B	74	18	D	80
19	A	84	19	D	87
20	E	72	20	D	60
21	B	91	21	C	91
22	O	65	22	D	74
23	O	71	23	D	62
24	E	61	24	D	71
25	A	44	25	D	33
26	C	53	26	D	60
27	A	56	27	D	60
28	A	52	28	D	52
29	O	52	29	C	48
30	B	49	30	C	45

ANALYTICAL ABILITY					
Section 3			Section 4		
Number	Answer	P +	Number	Answer	P +
1	B	87	1	E	88
2	O	89	2	O	83
3	C	81	3	C	51
4	E	60	4	B	77
5	C	74	5	O	80
6	E	29	6	C	82
7	O	87	7	D	92
8	B	75	8	B	90
9	B	56	9	O	74
10	A	92	10	A	57
11	O	80	11	B	54
12	B	81	12	E	61
13	A	69	13	A	92
14	C	65	14	A	33
15	E	75	15	O	15
16	A	58	16	D	55
17	O	34	17	D	76
18	B	61	18	A	67
19	O	41	19	C	62
20	O	33	20	O	41
21	B	31	21	D	45
22	O	28	22	D	34
23	A	55	23	O	62
24	C	53	24	D	45
25	C	38	25	O	45

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. Despite the apparently bewildering complexity of this procedure, the underlying _____ is quite _____.

(A) simplicity..calculated
(B) principle..elementary
(C) confusion..imaginary
(D) purpose..effective
(E) theory..modern

2. In television programming, a later viewing time often _____ a more _____ audience and, therefore, more challenging subjects and themes.

(A) requires..critical (B) evinces..affluent
(C) implies..mature (D) eliminates..realistic
(E) invites..general

3. The cultivation of the emotion of *natsukashii*, interpretable as "pleasant sorrow," brings Japanese to Kyoto in the spring, not to _____ the cherry blossoms in full bloom but to _____ the fading, falling flowers.

(A) mourn..exclaim over
(B) honor..protect
(C) describe..rejoice over
(D) arrange..preserve
(E) savor..grieve over

4. Adam Smith's *Wealth of Nations* (1776) is still worth reading, more to appreciate the current _____ of Smith's valid contributions to economics than to see those contributions as the _____ of present-day economics.

(A) disregard..outgrowths
(B) reaffirmation..concerns
(C) relevance..precursors
(D) acceptance..byproducts
(E) importance..vestiges

5. At several points in his discussion, Graves, in effect, _____ evidence when it does not support his argument, tailoring it to his needs.

(A) addresses (B) creates (C) alters
(D) suppresses (E) substitutes

6. Regardless of what _____ theories of politics may propound, there is nothing that requires daily politics to be clear, thorough, and consistent—nothing, that is, that requires reality to conform to theory.

(A) vague (B) assertive (C) casual
(D) vicious (E) tidy

7. Exposure to sustained noise has been claimed to _____ blood pressure regulation in human beings and, particularly, to increase hypertension, even though some researchers have obtained inconclusive results that' _____ the relationship.

(A) sharpen..conflate
(B) increase..diminish
(C) aggravate..buttress
(D) disrupt..neutralize
(E) impair..obscure

GO ON TO THE NEXT PAGE.

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. SOLDIER : ARMY :: (A) gas : vapor
(B) music : harmony (C) ruler : height
(D) negative : exposure (E) element : compound
9. SLUR : SPEECH :: (A) erase : drawing
(B) smudge : writing (C) confuse : puzzle
(D) crumble : construction (E) decrease : volume
10. LOCOMOTIVE : FLATCAR :: (A) bus : passenger
(B) airplane : cargo (C) bicycle : frame
(D) tugboat : barge (E) automobile : chassis
11. TRICKLE : GUSH :: (A) breathe : exhale
(B) amble : move (C) stain : blotch
(D) warm : sear (E) teach : educate
12. CHARADE : WORD :: (A) symbol : algebra
(B) joke : riddle (C) sign : direction
(D) mime : story (E) lie : truth

13. EPAULET : SHOULDER :: (A) ring : finger
(B) tassel : wrist (C) cravat : waist
(D) sash : neck (E) poncho : arm
14. VERNACULAR : PLACE ::
(A) landmark : tradition (B) code : solution
(C) fingerprint : identity (D) symptom : disease
(E) jargon : profession
15. HEAT : CALORIES ::
(A) liquid : gallons
(B) exercise : energy
(C) steam : pressure
(D) lamp : watts
(E) thermometer : degrees
16. MARTIAL : MILITARY ::
(A) basic : simplistic
(B) classic : musical
(C) cosmic : planetary
(D) runic : mysterious
(E) endemic : patriotic

GO ON TO THE NEXT PAGE.

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.

Eight percent of the Earth's crust is aluminum, and there are hundreds of aluminum-bearing minerals and vast quantities of the rocks that contain them. The best aluminum ore is bauxite, defined as aggregates of aluminum minerals, more or less impure, in which aluminum is present as hydrated oxides. Bauxite is the richest of all those aluminous rocks that occur in large quantities, and it yields alumina, the intermediate product required for the production of aluminum. Alumina also occurs naturally as the mineral corundum, but corundum is not found in large deposits of high purity, and therefore it is an impractical source for making aluminum. Most of the many abundant nonbauxite aluminous minerals are silicates, and, like all silicate minerals, they are refractory, resistant to analysis, and extremely difficult to process. The aluminum silicates are therefore generally unsuitable alternatives to bauxite because considerably more energy is required to extract alumina from them.

17. The author implies that a mineral must either be or readily supply which of the following in order to be classified as an aluminum ore?
- (A) An aggregate
 - (B) Bauxite
 - (C) Alumina
 - (D) Corundum
 - (E) An aluminum silicate

18. The passage supplies information for answering all of the following questions regarding aluminous minerals EXCEPT:
- (A) What percentage of the aluminum in the Earth's crust is in the form of bauxite?
 - (B) Are aluminum-bearing nonbauxite minerals plentiful?
 - (C) Do the aluminous minerals found in bauxite contain hydrated oxides?
 - (D) Are aluminous hydrated oxides found in rocks?
 - (E) Do large quantities of bauxite exist?
19. The author implies that corundum would be used to produce aluminum if
- (A) corundum could be found that is not contaminated by silicates
 - (B) the production of alumina could be eliminated as an intermediate step in manufacturing aluminum
 - (C) many large deposits of very high quality corundum were to be discovered
 - (D) new technologies were to make it possible to convert corundum to a silicate
 - (E) manufacturers were to realize that the world's supply of bauxite is not unlimited

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- Traditionally, the study of history has had fixed boundaries and focal points—periods, countries, dramatic events, and great leaders. It also has had clear and firm notions of scholarly procedure: how one inquires into a historical problem, how one presents and documents one's findings, what constitutes admissible and adequate proof.
- Anyone who has followed recent historical literature can testify to the revolution that is taking place in historical studies. The currently fashionable subjects come directly from the sociology catalog: childhood, work, leisure. The new subjects are accompanied by new methods. Where history once was primarily narrative, it is now entirely analytic.
- (5) The old questions "What happened?" and "How did it happen?" have given way to the question "Why did it happen?" Prominent among the methods used to answer the question "Why" is psychoanalysis, and its use has given rise to (10) psychohistory.
- Psychohistory does not merely use psychological explanations in historical contexts. Historians have always used such explanations when they were appropriate and when there was sufficient evidence (15) for them. But this pragmatic use of psychology is not what psychohistorians intend. They are committed, not just to psychology in general, but to Freudian psychoanalysis. This commitment precludes a commitment to history as historians have (20) always understood it. Psychohistory derives its "facts" not from history, the detailed records of events and their consequences, but from psychoanalysis of the individuals who made history, and deduces its theories not from this or that instance (25) in their lives, but from a view of human nature that transcends history. It denies the basic criterion of historical evidence: that evidence be publicly accessible to, and therefore assessable by, all historians. And it violates the basic tenet of historical method:
- (30) (40) that historians be alert to the negative instances that would refute their theses. Psychohistorians, convinced of the absolute rightness of their own theories, are also convinced that theirs is the "deepest" explanation of any event, that other explanations fall short of the truth.
- Psychohistory is not content to violate the discipline of history (in the sense of the proper mode of studying and writing about the past); it also violates the past itself. It denies to the past an integrity and (45) will of its own, in which people acted out of a variety of motives and in which events had a multiplicity of causes and effects. It imposes upon the past the same determinism that it imposes upon the present, thus robbing people and events of their (50) individuality and of their complexity. Instead of respecting the particularity of the past, it assimilates all events, past and present, into a single deterministic schema that is presumed to be true at all times and in all circumstances.

20. Which of the following best states the main point of the passage?
- The approach of psychohistorians to historical study is currently in vogue even though it lacks the rigor and verifiability of traditional historical method.
 - Traditional historians can benefit from studying the techniques and findings of psychohistorians.
 - Areas of sociological study such as childhood and work are of little interest to traditional historians.
 - The psychological assessment of an individual's behavior and attitudes is more informative than the details of his or her daily life.
 - History is composed of unique and nonrepeating events that must be individually analyzed on the basis of publicly verifiable evidence.
21. It can be inferred from the passage that one way in which traditional history can be distinguished from psychohistory is that traditional history usually
- views past events as complex and having their own individuality
 - relies on a single interpretation of human behavior to explain historical events
 - interprets historical events in such a way that their specific nature is transcended
 - turns to psychological explanations in historical contexts to account for events
 - relies strictly on data that are concrete and quantifiable
22. It can be inferred from the passage that the methods used by psychohistorians probably prevent them from
- presenting their material in chronological order
 - producing a one-sided picture of an individual's personality and motivations
 - uncovering alternative explanations that might cause them to question their own conclusions
 - offering a consistent interpretation of the impact of personality on historical events
 - recognizing connections between a government's political actions and the aspirations of government leaders

GO ON TO THE NEXT PAGE.

23. The passage supplies information for answering which of the following questions?
- (A) What are some specific examples of the use of psychohistory in historical interpretation?
 - (B) When were the conventions governing the practice of traditional history first established?
 - (C) When do traditional historians consider psychological explanations of historical developments appropriate?
 - (D) What sort of historical figure is best suited for psychohistorical analysis?
 - (E) What is the basic criterion of historical evidence required by traditional historians?
24. The author mentions which of the following as a characteristic of the practice of psychohistorians?
- (A) The lives of historical figures are presented in episodic rather than narrative form.
 - (B) Archives used by psychohistorians to gather material are not accessible to other scholars.
 - (C) Past and current events are all placed within the same deterministic schema.
 - (D) Events in the adult life of a historical figure are seen to be more consequential than are those in the childhood of the figure.
 - (E) Analysis is focused on group behavior rather than on particular events in an individual's life.
25. The author of the passage suggests that psychohistorians view history primarily as
- (A) a report of events, causes, and effects that is generally accepted by historians but which is, for the most part, unverifiable
 - (B) an episodic account that lacks cohesion because records of the role of childhood, work, and leisure in the lives of historical figures are rare
 - (C) an uncharted sea of seemingly unexplainable events that have meaning only when examined as discrete units
 - (D) a record of the way in which a closed set of immutable psychological laws seems to have shaped events
 - (E) a proof of the existence of intricate causal interrelationships between past and present events
26. The author of the passage puts the word "deepest" (line 44) in quotation marks most probably in order to
- (A) signal her reservations about the accuracy of psychohistorians' claims for their work
 - (B) draw attention to a contradiction in the psychohistorians' method
 - (C) emphasize the major difference between the traditional historians' method and that of psychohistorians
 - (D) disassociate her opinion of the psychohistorians' claims from her opinion of their method
 - (E) question the usefulness of psychohistorians' insights into traditional historical scholarship
27. In presenting her analysis, the author does all of the following EXCEPT:
- (A) Make general statements without reference to specific examples.
 - (B) Describe some of the criteria employed by traditional historians.
 - (C) Question the adequacy of the psychohistorians' interpretation of events.
 - (D) Point out inconsistencies in the psychohistorians' application of their methods.
 - (E) Contrast the underlying assumptions of psychohistorians with those of traditional historians.

GO ON TO THE NEXT PAGE.

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. GROUP: (A) restrain (B) isolate
(C) confound (D) abandon (E) reveal

29. IMMEDIATE: (A) complex (B) limited
(C) future (D) multiple (E) tiring

30. PERSEVERANCE:
(A) obvious suffering
(B) abnormal tranquillity
(C) lack of promptness
(D) cessation of effort
(E) frequency of occurrence

31. OFF-KEY:
(A) with sensitive phrasing
(B) with a suitable instrument
(C) at the right volume
(D) at a regular beat
(E) at the proper pitch

32. BOLSTER: (A) cancel (B) disconnect
(C) delete (D) decrease support of
(E) lose faith in

33. DEBACLE:
(A) definite agreement
(B) complete success
(C) ungrudging acceptance
(D) unquestionable assumption
(E) frank response

34. ALLEVIATE: (A) transpose (B) exacerbate
(C) fortify (D) rectify (E) proliferate

35. ARTLESSNESS: (A) originality
(B) objectivity (C) cunning
(D) foresight (E) resentment

36. LABILE: (A) intrinsic
(B) differential (C) colorable
(D) restored (E) stable

37. NUGATORY: (A) tasteful (B) unlimited
(C) innovative (D) fashionable
(E) consequential

38. BENT: (A) symmetry (B) rigidity
(C) ineptitude (D) nonchalance
(E) trustworthiness

SECTION 4

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. After a slow sales start early in the year, mobile homes have been gaining favor as _____ to increasingly expensive conventional housing.
(A) a reaction (B) an addition
(C) an introduction (D) an alternative
(E) a challenge
2. Just as such apparently basic things as rocks, clouds, and clams are, in fact, intricately structured entities, so the self, too, is not an "elementary particle," but is _____ construction.
(A) a complicated (B) a convoluted
(C) a distorted (D) an amorphous
(E) an illusory
3. Considering how long she had yearned to see Italy, her first reaction was curiously _____.
(A) meditative (B) tepid
(C) categorical (D) unoriginal
(E) insightful
4. The successful _____ of an archaeological site requires scientific knowledge as well as cultural _____.
(A) evolution..awareness
(B) revelation..depth
(C) reconstruction..sensitivity
(D) analysis..aesthetics
(E) synthesis..understanding
5. As painted by Constable, the scene is not one of bucolic _____; rather it shows a striking emotional and intellectual _____.
(A) intensity..boredom
(B) complacence..detachment
(C) serenity..tension
(D) vitality..excitement
(E) nostalgia..placidity
6. Our times seem especially _____ to bad ideas, probably because in throwing off the shackles of tradition, we have ended up being quite _____ untested theories and untried remedies.
(A) impervious..tolerant of
(B) hostile..dependent on
(C) hospitable..vulnerable to
(D) prone..wary of
(E) indifferent..devoid of
7. Although he attempted repeatedly to _____ her of her conviction of his insincerity, he was not successful; she remained _____ in her judgment.
(A) remind..forceful
(B) convince..unfeigned
(C) exorcise..indulgent
(D) disabuse..adamant
(E) free..unsure

GO ON TO THE NEXT PAGE.

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. DERMATOLOGIST : SKIN :: (A) dentist : organs
(B) optometrist : nerves (C) oncologist : joints
(D) cardiologist : bones (E) podiatrist : feet
9. UNDERSTUDY : STAR ::
(A) patient : surgeon (B) deputy : sheriff
(C) secretary : executive (D) clerk : judge
(E) groom : jockey
10. SUSPICIOUS : PARANOID :: (A) envious : proud
(B) admiring : idolatrous (C) joyous : virtuous
(D) furtive : forthright (E) vicious : deceptive
11. GREENHOUSE : PLANT :: (A) refrigerator : milk
(B) well : water (C) orchard : fruit
(D) incubator : infant (E) tank : fuel
12. ANACHRONISTIC : TIME ::
(A) discordant : sound
(B) dilapidated : construction
(C) disreputable : personality
(D) contagious : illness
(E) nauseating : odor
13. RIVER : GORGE :: (A) glacier : ice
(B) rain : cloud (C) wind : dune
(D) delta : swamp (E) lava : island
14. STIPPLE : DOT :: (A) striate : band
(B) camouflage : target (C) inscribe : drawing
(D) freckle : face (E) wrinkle : angle
15. GOURMAND : APPETITE ::
(A) pedant : simplicity (B) skinflint : thrift
(C) prodigal : energy (D) daredevil : strength
(E) egotist : honesty
16. ROYALTY : PAYMENT :: (A) manuscript : page
(B) gratuity : check (C) dividend : debt
(D) subpoena : writ (E) client : fee

GO ON TO THE NEXT PAGE.

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.

Jean Wagner's most enduring contribution to the study of Afro-American poetry is his insistence that it be analyzed in a religious, as well as secular, frame of reference. The appropriateness of such an approach may seem self-evident for a tradition commencing with spirituals and owing its early forms, rhythms, vocabulary, and evangelical fervor to Wesleyan hymnals. But before Wagner a secular outlook that analyzed Black poetry solely within the context of political and social protest was dominant in the field.

It is Wagner who first demonstrated the essential fusion of racial and religious feeling in Afro-American poetry. The two, he argued, form a symbiotic union in which religious feelings are often applied to racial issues and racial problems are often projected onto a metaphysical plane. Wagner found this most eloquently illustrated in the Black spiritual, where the desire for freedom in this world and the hope for salvation in the next are inextricably intertwined.

17. The primary purpose of the passage is to

- (A) contrast the theories of Jean Wagner with those of other contemporary critics
- (B) document the influence of Jean Wagner on the development of Afro-American poetry
- (C) explain the relevance of Jean Wagner's work to the study of Afro-American religion
- (D) indicate the importance of Jean Wagner's analysis of Afro-American poetry
- (E) present the contributions of Jean Wagner to the study of Black spirituals

- 18. All of the following aspects of Afro-American poetry are referred to in the passage as having been influenced by Wesleyan hymnals EXCEPT
 - (A) subject matter
 - (B) word choice
 - (C) rhythm
 - (D) structure
 - (E) tone
- 19. It can be inferred from the passage that, before Wagner, most students of Afro-American poetry did which of the following?
 - (A) Contributed appreciably to the transfer of political protest from Afro-American poetry to direct political action.
 - (B) Ignored at least some of the historical roots of Afro-American poetry.
 - (C) Analyzed fully the aspects of social protest to be found in such traditional forms of Afro-American poetry as the Black spiritual.
 - (D) Regarded as unimportant the development of fervent emotionalism in a portion of Afro-American poetry.
 - (E) Concentrated on the complex relations between the technical elements in Afro-American poetry and its political content.

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Two relatively recent independent developments stand behind the current major research effort on nitrogen fixation, the process by which bacteria symbiotically render leguminous plants independent of nitrogen fertilizer. The one development has been the rapid, sustained increase in the price of nitrogen fertilizer. The other development has been the rapid growth of knowledge of and technical sophistication in genetic engineering. Fertilizer prices, largely tied to the price of natural gas, huge amounts of which go into the manufacture of fertilizer, will continue to represent an enormous and escalating economic burden on modern agriculture, spurring the search for alternatives to synthetic fertilizers. And genetic engineering is just the sort of fundamental breakthrough that opens up prospects of wholly novel alternatives. One such novel idea is that of inserting into the chromosomes of plants discrete genes that are not a part of the plants' natural constitution: specifically, the idea of inserting into nonleguminous plants the genes, if they can be identified and isolated, that fit the leguminous plants to be hosts for nitrogen-fixing bacteria. Hence, the intensified research on legumes.

Nitrogen fixation is a process in which certain bacteria use atmospheric nitrogen gas, which green plants cannot directly utilize, to produce ammonia, a nitrogen compound plants can use. It is one of nature's great ironies that the availability of nitrogen in the soil frequently sets an upper limit on plant growth even though the plants' leaves are bathed in a sea of nitrogen gas. The leguminous plants—among them crop plants such as soybeans, peas, alfalfa, and clover—have solved the nitrogen supply problem by entering into a symbiotic relationship with the bacterial genus *Rhizobium*; as a matter of fact, there is a specific strain of *Rhizobium* for each species of legume. The host plant supplies the bacteria with food and a protected habitat and receives surplus ammonia in exchange. Hence, legumes can thrive in nitrogen-depleted soil. Unfortunately, most of the major food crops—including maize, wheat, rice, and potatoes—cannot. On the contrary, many of the high-yielding hybrid varieties of these food crops bred during the Green Revolution of the 1960's were selected specifically to give high yields in response to generous applications of nitrogen fertilizer. This poses an additional, formidable challenge to plant geneticists: they must work on enhancing fixation within the existing symbioses. Unless they succeed, the yield gains of the Green Revolution will be largely lost even if the genes in legumes that equip those plants to enter into a symbiosis with nitrogen fixers are identified and isolated, and even if the transfer of those gene complexes, once they are found, becomes possible. The overall task looks forbidding, but the stakes are too high not to undertake it.

20. The primary purpose of the passage is to
- expose the fragile nature of the foundations on which the high yields of modern agriculture rest
 - argue that genetic engineering promises to lead to even higher yields than are achievable with synthetic fertilizers
 - argue that the capacity for nitrogen-fixing symbioses is transferable to nonleguminous plants
 - explain the reasons for and the objectives of current research on nitrogen-fixing symbioses
 - describe the nature of the genes that regulate the symbiosis between legumes and certain bacteria
21. According to the passage, there is currently no strain of *Rhizobium* that can enter into a symbiosis with
- alfalfa
 - clover
 - maize
 - peas
 - soybeans
22. The passage implies that which of the following is true of the bacterial genus *Rhizobium*?
- Rhizobium* bacteria are found primarily in nitrogen-depleted soils.
 - Some strains of *Rhizobium* are not capable of entering into a symbiosis with any plant.
 - Newly bred varieties of legumes cannot be hosts to any strain of *Rhizobium*.
 - Rhizobium* bacteria cannot survive outside the protected habitat provided by host plants.
 - Rhizobium* bacteria produce some ammonia for their own purposes.
23. It can be inferred from the passage that which of the following was the most influential factor in bringing about intensified research on nitrogen fixation?
- The high yields of the Green Revolution
 - The persistent upward surge in natural gas prices
 - The variety of *Rhizobium* strains
 - The mechanization of modern agriculture
 - The environmental ill effects of synthetic fertilizers

GO ON TO THE NEXT PAGE.

24. Which of the following situations is most closely analogous to the situation described by the author as one of nature's great ironies (lines 28-32) ?
- (A) That of a farmer whose crops have failed because the normal midseason rains did not materialize and no preparations for irrigation had been made
 - (B) That of a long-distance runner who loses a marathon race because of a wrong turn that cost him twenty seconds
 - (C) That of shipwrecked sailors at sea in a lifeboat, with one flask of drinking water to share among them
 - (D) That of a motorist who runs out of gas a mere five miles from the nearest gas station
 - (E) That of travelers who want to reach their destination as fast and as cheaply as possible, but find that cost increases as travel speed increases
25. According to the passage, the ultimate goal of the current research on nitrogen fixation is to develop
- (A) strains of *Rhizobium* that can enter into symbioses with existing varieties of wheat, rice, and other nonlegumes
 - (B) strains of *Rhizobium* that produce more ammonia for leguminous host plants than do any of the strains presently known
 - (C) varieties of wheat, rice, and other nonlegumes that yield as much as do existing varieties, but require less nitrogen
 - (D) varieties of wheat, rice, and other nonlegumes that maintain an adequate symbiotic relationship with nitrogen-fixing bacteria and produce high yields
 - (E) high-yielding varieties of wheat, rice, and other nonlegumes that are genetically equipped to fix nitrogen from the air without the aid of bacteria
26. The author regards the research program under discussion as
- (A) original and extensive but ill-defined as to method
 - (B) necessary and ambitious but vulnerable to failure
 - (C) cogent and worthwhile but severely underfunded
 - (D) prohibitively expensive but conceptually elegant
 - (E) theoretically fascinating but practically useless
27. Most nearly parallel, in its fundamental approach, to the research program described in the passage would be a program designed to
- (A) achieve greater frost resistance in frost-tender food plants by means of selective breeding, thereby expanding those plants' area of cultivation
 - (B) achieve greater yields from food plants by interplanting crop plants that are mutually beneficial
 - (C) find inexpensive and abundant natural substances that could, without reducing yields, be substituted for expensive synthetic fertilizers
 - (D) change the genetic makeup of food plants that cannot live in water with high salinity, using genes from plants adapted to salt water
 - (E) develop, through genetic engineering, a genetic configuration for the major food plants that improves the storage characteristics of the edible portion of the plants

GO ON TO THE NEXT PAGE.

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. EXTINGUISH: (A) smolder (B) defuse
(C) scorch (D) ignite (E) explode
29. DWINDLE: (A) accept (B) esteem
(C) exaggerate (D) combine (E) increase
30. UNEARTH: (A) conform (B) conceal
(C) respect (D) blend (E) plot
31. TESTINESS: (A) devotion (B) patience
(C) methodicalness (D) caution (E) discretion
32. PRECARIOUS: (A) clever (B) recent
(C) anxious (D) clearly intended
(E) firmly grounded

33. FETID: (A) luminous
(B) dense
(C) having a pleasant smell
(D) having a balanced structure
(E) unable to be imitated
34. PREJUDICED: (A) straightforward
(B) unmoved (C) disinterested
(D) sentimental (E) even-tempered
35. TRAVESTY: (A) intentional slight
(B) light burden (C) good rapport
(D) assertion (E) paragon
36. PROSCRIBE: (A) predict (B) sanction
(C) reciprocate (D) delineate (E) codify
37. TRUCULENT: (A) gentle (B) dim
(C) dainty (D) silent (E) pure
38. IMPROBITY: (A) success (B) honesty
(C) paucity (D) likelihood (E) presumption

FOR GENERAL TEST 15 ONLY
Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 2			Section 4		
Number	Answer	P+	Number	Answer	P+
1	B	88	1	D	85
2	C	79	2	A	85
3	E	73	3	B	75
4	C	58	4	C	49
5	C	75	5	C	54
6	E	30	6	C	49
7	E	32	7	D	47
8	E	90	8	E	90
9	B	87	9	B	73
10	D	72	10	B	70
11	D	55	11	D	67
12	D	59	12	A	62
13	A	50	13	C	42
14	E	36	14	A	47
15	A	32	15	B	39
16	D	8	18	D	25
17	C	46	17	D	51
18	A	68	18	A	47
19	C	77	19	B	33
20	A	61	20	D	63
21	A	35	21	C	92
22	C	62	22	E	21
23	E	43	23	B	57
24	C	65	24	C	50
25	D	45	25	D	38
26	A	43	26	B	68
27	D	38	27	D	38
28	B	90	28	D	91
29	C	89	29	E	84
30	D	80	30	B	81
31	E	77	31	B	79
32	D	74	32	E	62
33	B	51	33	C	61
34	B	50	34	C	33
35	C	28	35	E	31
36	E	34	36	B	25
37	E	21	37	A	29
38	C	14	38	B	20

QUANTITATIVE ABILITY					
Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+
1	B	89	1	B	85
2	A	93	2	B	87
3	B	86	3	D	82
4	C	92	4	A	84
5	A	88	5	C	82
6	A	80	6	B	77
7	A	79	7	C	72
8	C	63	8	A	73
9	B	59	9	D	69
10	A	64	10	C	61
11	D	54	11	B	50
12	C	69	12	B	65
13	D	63	13	D	47
14	B	40	14	C	45
15	B	28	15	A	27
16	D	83	16	B	94
17	A	83	17	C	95
18	B	77	18	C	82
19	B	79	19	E	80
20	D	69	20	B	73
21	B	93	21	C	95
22	D	73	22	C	72
23	A	47	23	A	58
24	E	33	24	B	32
25	C	36	25	E	19
26	C	67	26	D	73
27	D	63	27	E	50
28	E	44	28	A	59
29	C	33	29	D	42
30	E	28	30	A	33

ANALYTICAL ABILITY					
Section 1			Section 5		
Number	Answer	P+	Number	Answer	P+
1	A	89	1	B	95
2	D	76	2	C	74
3	B	65	3	A	74
4	C	68	4	E	81
5	D	64	5	C	73
6	C	71	6	E	81
7	D	62	7	C	72
8	E	57	8	D	68
9	E	88	9	A	59
10	B	93	10	E	54
11	E	54	11	D	84
12	B	81	12	D	40
13	A	44	13	A	43
14	B	63	14	B	53
15	A	63	15	C	60
16	E	64	16	C	70
17	A	53	17	B	87
18	B	52	18	E	52
19	B	26	19	A	38
20	E	30	20	C	48
21	D	21	21	D	25
22	D	28	22	B	22
23	A	48	23	D	46
24	C	23	24	D	39
25	B	22	25	A	25

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 16

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. Dreams are —— in and of themselves, but, when combined with other data, they can tell us much about the dreamer.

(A) uninformative
(B) startling
(C) harmless
(D) unregulated
(E) uncontrollable

2. The Muses are —— deities: they avenge themselves without mercy on those who weary of their charms.

(A) rueful (B) ingenuous (C) solicitous
(D) vindictive (E) dispassionate

3. Without the psychiatrist's promise of confidentiality, trust is —— and the patient's communication limited; even though confidentiality can thus be seen to be precious in therapy, moral responsibility sometimes requires a willingness to —— it.

(A) implicit..extend
(B) ambiguous..apply
(C) prevented..uphold
(D) assumed..examine
(E) impaired..sacrifice

4. Having fully embraced the belief that government by persuasion is preferable to government by ——, the leaders of the movement have recently —— most of their previous statements supporting totalitarianism.

(A) intimidation..issued
(B) participation..moderated
(C) proclamation..codified
(D) demonstration..deliberated
(E) coercion..repudiated

5. The powers and satisfactions of primeval people, though few and meager, were —— their few and simple desires.

(A) simultaneous with
(B) commensurate with
(C) substantiated by
(D) circumscribed by
(E) ruined by

6. Some scientists argue that carbon compounds play such a central role in life on Earth because of the possibility of —— resulting from the carbon atom's ability to form an unending series of different molecules.

(A) deviation
(B) stability
(C) reproduction
(D) variety
(E) invigoration

7. Whereas the art critic Vasari saw the painting entitled the *Mona Lisa* as an original and wonderful —— feat, the reproduction of a natural object, the aesthetes saw it as —— that required deciphering.

(A) collaborative..an aberration
(B) historical..a symbol
(C) technical..a hieroglyph
(D) mechanical..an imitation
(E) visual..an illusion

GO ON TO THE NEXT PAGE.

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. REFLECTION:LIGHT :: (A) emotion:feeling
(B) echo:sound (C) film:scene
(D) microphone:hearing (E) iris:vision
9. CARVE:TURKEY :: (A) slice:cake
(B) peel:peach (C) mince:onion
(D) core:apple (E) stew:prune
10. GEM:TURQUOISE :: (A) stone:magenta
(B) flower:violet (C) pear:orange
(D) lettuce:green (E) vine:cherry
11. PARQUET:WOOD :: (A) potpourri:medley
(B) collage:tapestry (C) color:painting
(D) linoleum:marble (E) mosaic:glass
12. IMPLACABLE:APPEASE ::
(A) impregnable:defy
(B) inconsistent:persuade
(C) indomitable:subdue
(D) imperturbable:mollify
(E) intractable:understand
13. HOMOGENIZATION:UNIFORM ::
(A) coagulation:brittle
(B) combustion:flammable
(C) digestion:edible
(D) putrefaction:rotten
(E) fermentation:liquid
14. SELFLESSNESS:ALTRUIST ::
(A) pragmatism:philanthropist
(B) expertise:connisseur
(C) indiscretion:misanthrope
(D) enthusiasm:dilettante
(E) imperviousness:fanatic
15. AESTHETICS:BEAUTY ::
(A) ethics:etiquette
(B) epistemology:knowledge
(C) logistics:truth
(D) rhetoric:reasoning
(E) theology:morals
16. CORNUCOPIA:ABUNDANCE ::
(A) fortune:success (B) mace:authority
(C) ensign:ship (D) unicorn:myth
(E) medal:badge

GO ON TO THE NEXT PAGE.

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.

Whether the languages of the ancient American peoples were used for expressing abstract universal concepts can be clearly answered in the case of Nahuatl. Nahuatl, like Greek and German, is a language that allows the formation of extensive compounds. By the combination of radicals or semantic elements, single compound words can express complex conceptual relations, often of an abstract universal character.

The *tlamatinime* ("those who know") were able to use this rich stock of abstract terms to express the nuances of their thought. They also availed themselves of other forms of expression with metaphorical meaning, some probably original, some derived from Toltec coinages. Of these forms the most characteristic in Nahuatl is the juxtaposition of two words that, because they are synonyms, associated terms, or even contraries, complement each other to evoke one single idea. Used as metaphor, the juxtaposed terms connote specific or essential traits of the being they refer to, introducing a mode of poetry as an almost habitual form of expression.

17. A main purpose of the passage is to

- (A) delineate the function of the *tlamatinime* in Nahuatl society
- (B) explain the abstract philosophy of the Nahuatl thinkers
- (C) argue against a theory of poetic expression by citing evidence about the Nahuatl
- (D) explore the rich metaphorical heritage the Nahuatl received from the Toltecs
- (E) describe some conceptual and aesthetic resources of the Nahuatl language

18. According to the passage, some abstract universal ideas can be expressed in Nahuatl by
- (A) taking away from a word any reference to particular instances
 - (B) removing a word from its associations with other words
 - (C) giving a word a new and opposite meaning
 - (D) putting various meaningful elements together in one word
 - (E) turning each word of a phrase into a poetic metaphor
19. It can be inferred solely from the information in the passage that
- (A) there are many languages that, like Greek or German, allow extensive compounding
 - (B) all abstract universal ideas are ideas of complex relations
 - (C) some record or evidence of the thought of the *tlamatinime* exists
 - (D) metaphors are always used in Nahuatl to express abstract conceptual relationships
 - (E) the abstract terms of the Nahuatl language are habitually used in poetry

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Many theories have been formulated to explain the role of grazers such as zooplankton in controlling the amount of planktonic algae (phytoplankton) in lakes. The first theories of such grazer control were merely based on observations of negative correlations between algal and zooplankton numbers. A low number of algal cells in the presence of a high number of grazers suggested, but did not prove, that the grazers had removed most of the algae. The converse observation, of the absence of grazers in areas of high phytoplankton concentration, led Hardy to propose his principle of animal exclusion, which hypothesized that phytoplankton produced a repellent that excluded grazers from regions of high phytoplankton concentration. This was the first suggestion of algal defenses against grazing.

Perhaps the fact that many of these first studies considered only algae of a size that could be collected in a net (net phytoplankton), a practice that overlooked the smaller phytoplankton (nannoplankton) that we now know grazers are most likely to feed on, led to a de-emphasis of the role of grazers in subsequent research. Increasingly, as in the individual studies of Lund, Round, and Reynolds, researchers began to stress the importance of environmental factors such as temperature, light, and water movements in controlling algal numbers. These environmental factors were amenable to field monitoring and to simulation in the laboratory. Grazing was believed to have some effect on algal numbers, especially after phytoplankton growth rates declined at the end of bloom periods, but grazing was considered a minor component of models that predicted algal population dynamics.

The potential magnitude of grazing pressure on freshwater phytoplankton has only recently been determined empirically. Studies by Hargrave and Geen estimated natural community grazing rates by measuring feeding rates of individual zooplankton species in the laboratory and then computing community grazing rates for field conditions using the known population density of grazers. The high estimates of grazing pressure postulated by these researchers were not fully accepted, however, until the grazing rates of zooplankton were determined directly in the field, by means of new experimental techniques. Using a specially prepared feeding chamber, Haney was able to record zooplankton grazing rates in natural field conditions. In the periods of peak zooplankton abundance, that is, in the late spring and in the summer, Haney recorded maximum daily community grazing rates, for nutrient-poor lakes and bog lakes, respectively, of 6.6 percent and 114 percent of

daily phytoplankton production. Cladocerans had higher grazing rates than copepods, usually accounting for 80 percent of the community grazing rate. These rates varied seasonally, reaching the lowest point in the winter and early spring. Haney's thorough research provides convincing field evidence that grazers can exert significant pressure on phytoplankton population.

20. The author most likely mentions Hardy's principle of animal exclusion in order to
 - (A) give an example of one theory about the interaction of grazers and phytoplankton
 - (B) defend the first theory of algal defenses against grazing
 - (C) support the contention that phytoplankton numbers are controlled primarily by environmental factors
 - (D) demonstrate the superiority of laboratory studies of zooplankton feeding rates to other kinds of studies of such rates
 - (E) refute researchers who believed that low numbers of phytoplankton indicated the grazing effect of low numbers of zooplankton
21. It can be inferred from the passage that the "first theories" of grazer control mentioned in line 4 would have been more convincing if researchers had been able to
 - (A) observe high phytoplankton numbers under natural lake conditions
 - (B) discover negative correlations between algae and zooplankton numbers from their field research
 - (C) understand the central importance of environmental factors in controlling the growth rates of phytoplankton
 - (D) make verifiable correlations of cause and effect between zooplankton and phytoplankton numbers
 - (E) invent laboratory techniques that would have allowed them to bypass their field research concerning grazer control

GO ON TO THE NEXT PAGE.

22. Which of the following, if true, would call into question Hardy's principle of animal exclusion?
- (A) Zooplankton are not the only organisms that are affected by phytoplankton repellents.
 - (B) Zooplankton exclusion is unrelated to phytoplankton population density.
 - (C) Zooplankton population density is higher during some parts of the year than during others.
 - (D) Net phytoplankton are more likely to exclude zooplankton than are nannoplankton.
 - (E) Phytoplankton numbers can be strongly affected by environmental factors.
23. The author would be likely to agree with which of the following statements regarding the pressure of grazers on phytoplankton numbers?
- I. Grazing pressure can vary according to the individual type of zooplankton.
 - II. Grazing pressure can be lower in nutrient-poor lakes than in bog lakes.
 - III. Grazing tends to exert about the same pressure as does temperature.
- (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
24. The passage supplies information to indicate that Hargrave and Geen's conclusion regarding the grazing pressure exerted by zooplankton on phytoplankton numbers was most similar to the conclusion regarding grazing pressure reached by which of the following researchers?
- (A) Hardy
 - (B) Lund
 - (C) Round
 - (D) Reynolds
 - (E) Haney
25. It can be inferred from the passage that one way in which many of the early researchers on grazer control could have improved their data would have been to
- (A) emphasize the effects of temperature, rather than of light, on phytoplankton
 - (B) disregard nannoplankton in their analysis of phytoplankton numbers
 - (C) collect phytoplankton of all sizes before analyzing the extent of phytoplankton concentration
 - (D) recognize that phytoplankton other than net phytoplankton could be collected in a net
 - (E) understand the crucial significance of net phytoplankton in the diet of zooplankton
26. According to the passage, Hargrave and Geen did which of the following in their experiments?
- (A) They compared the grazing rates of individual zooplankton species in the laboratory with the natural grazing rates of these species.
 - (B) They hypothesized about the population density of grazers in natural habitats by using data concerning the population density of grazers in the laboratory.
 - (C) They estimated the community grazing rates of zooplankton in the laboratory by using data concerning the natural community grazing rates of zooplankton.
 - (D) They estimated the natural community grazing rates of zooplankton by using data concerning the known population density of phytoplankton.
 - (E) They estimated the natural community grazing rates of zooplankton by using laboratory data concerning the grazing rates of individual zooplankton species.
27. Which of the following is a true statement about the zooplankton numbers and zooplankton grazing rates observed in Haney's experiments?
- (A) While zooplankton numbers began to decline in August, zooplankton grazing rates began to increase.
 - (B) Although zooplankton numbers were high in May, grazing rates did not become high until January.
 - (C) Both zooplankton numbers and grazing rates were higher in December than in November.
 - (D) Both zooplankton numbers and grazing rates were lower in March than in June.
 - (E) Both zooplankton numbers and grazing rates were highest in February.

GO ON TO THE NEXT PAGE.

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. EXCESSIVE: (A) too soon
(B) too little (C) with care
(D) of interest (E) on demand
29. VICTOR: (A) victim (B) enemy
(C) opponent (D) underling (E) loser
30. AUDACIOUS: (A) timid
(B) mute (C) visible
(D) disciplined (E) cultivated
31. AUTONOMY:
(A) friendliness
(B) dependence
(C) recalcitrance
(D) receptiveness to change
(E) lack of principles
32. EXTEMPORANEOUS: (A) additional
(B) skillful (C) planned
(D) confined (E) calm

33. DISTEND: (A) constrict
(B) concentrate (C) deteriorate
(D) fold (E) weaken
34. ASSUAGE: (A) generate
(B) intensify (C) segregate
(D) disjoin (E) extract
35. CLINCH: (A) treat gently
(B) divide carelessly (C) grow less weary
(D) make more doubtful (E) lose sight of
36. PROFLIGACY: (A) frugality
(B) paucity (C) insensitivity
(D) legitimacy (E) tenacity
37. PUSSANCE: (A) powerlessness
(B) baseness (C) liberality
(D) skepticism (E) knowledge
38. RAVE: (A) flak (B) flop
(C) cant (D) pan (E) snub

SECTION 4

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. As late as 1891 a speaker assured his audience that since profitable farming was the result of natural ability rather than ——, an education in agriculture was ——.
(A) instruction..vital
(B) effort..difficult
(C) learning..useless
(D) science..intellectual
(E) luck..senseless
2. In spite of the —— nature of Scotland's terrain, its main roads are surprisingly free from severe ——.
(A) rocky..weather
(B) mountainous..grades
(C) uncharted..flooding
(D) unpredictable..damage
(E) landlocked..slipperiness
3. Walpole's art collection was huge and fascinating, and his novel *The Castle of Otranto* was never out of print; none of this mattered to the Victorians, who —— him as, at best, ——.
(A) dismissed..insignificant
(B) judged..worthwhile
(C) revered..talented
(D) reviled..meager
(E) taunted..dangerous
4. Since the author frequently —— other scholars, his objection to disputes is not only irrelevant but also ——.
(A) supports..overbearing
(B) provokes..frightening
(C) quotes..curious
(D) ignores..peevish
(E) attacks..surprising
5. Longdale and Stern discovered that mitochondria and chloroplasts —— a long, identifiable sequence of DNA; such a coincidence could be —— only by the transfer of DNA between the two systems.
(A) manufacture..accomplished
(B) reveal..repeated
(C) exhibit..determined
(D) share..explained
(E) maintain..contradicted
6. Until the current warming trend exceeds the range of normal climatic fluctuations, there will be, among scientists, considerable —— the possibility that increasing levels of atmospheric CO₂ can cause long-term warming effects.
(A) interest in
(B) uncertainty about
(C) enthusiasm for
(D) worry about
(E) experimentation on
7. Without seeming unworldly, William James appeared wholly removed from the —— of society, the conventionality of academe.
(A) ethos
(B) idealism
(C) romance
(D) paradoxes
(E) commonplaces

GO ON TO THE NEXT PAGE.

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. OATH:PROMISE :: (A) contract:agreement
(B) deed:attorney (C) title:estate
(D) job:loyalty (E) truce:warfare
9. NEEDLE:KNIT :: (A) loom:weave
(B) soap:wash (C) bed:sleep
(D) bait:fish (E) match:fire
10. MAIL:MAILBOX :: (A) medicine:treatment
(B) laundry:hamper (C) gasoline:pump
(D) coat:factory (E) toothpaste:cleanliness
11. ASTRINGENT:PUCKER ::
(A) speed:collision (B) consolation:sorrow
(C) proposition:solution (D) spark:ignition
(E) texture:surface
12. HEMORRHAGE:BLEEDING ::
(A) vertigo:dizziness (B) asthma:respiration
(C) obesity:food (D) anemia:vitality
(E) tension:pain

13. INDULGE:ASCETIC ::
(A) adapt:mutineer (B) sacrifice:politician
(C) restrain:libertine (D) defy:traitor
(E) stint:benefactor
14. LURK:WAIT :: (A) abscond:depart
(B) bilk:cheat (C) topple:stabilize
(D) deplete:drain (E) boost:elevate
15. INTERESTED:AGOG ::
(A) persistent:daunted
(B) careful:meticulous
(C) curious:questioning
(D) blithe:willful
(E) occupied:engaged
16. DOGMA:ICONOCLAST ::
(A) authority:subordinate
(B) patriotism:coward
(C) ideology:rebel
(D) responsibility:renegade
(E) convention:maverick

GO ON TO THE NEXT PAGE.

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.

- Hydrogeology is a science dealing with the properties, distribution, and circulation of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere. The hydrologic cycle, a major topic in this science, is the complete cycle of phenomena through which water passes, beginning as atmospheric water vapor, passing into liquid and solid form as precipitation, thence along and into the ground surface, and finally again returning to the form of atmospheric water vapor by means of evaporation and transpiration.
- (5) (10)

The term "geohydrology" is sometimes erroneously used as a synonym for "hydrogeology." Geohydrology is concerned with underground water. There are many formations that contain water but are not part of the hydrologic cycle because of geologic changes that have isolated them underground. These systems are (15) (20)

- (20) The author's primary purpose is most probably to

- (A) present a hypothesis
(B) refute an argument
(C) correct a misconception
(D) predict an occurrence
(E) describe an enigma

18. It can be inferred that which of the following is most likely to be the subject of study by a geohydrologist?
- (A) Soft, porous rock being worn away by a waterfall
(B) Water depositing minerals on the banks of a gorge through which the water runs
(C) The trapping of water in a sealed underground rock cavern through the action of an earthquake
(D) Water becoming unfit to drink through the release of pollutants into it from a manufacturing plant
(E) The changing course of a river channel as the action of the water wears away the rocks past which the river flows
19. The author refers to "many formations" (line 16) primarily in order to
- (A) clarify a distinction
(B) introduce a subject
(C) draw an analogy
(D) emphasize a similarity
(E) resolve a conflict

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- The historian Frederick J. Turner wrote in the 1890's that the agrarian discontent that had been developing steadily in the United States since about 1870 had been precipitated by
- (5) closing of the internal frontier—that is, the depletion of available new land needed for further expansion of the American farming system. Not only was Turner's thesis influential at the time, it was later adopted and elaborated
 - (10) by other scholars, such as John D. Hicks in *The Populist Revolt* (1931). Actually, however, new lands were taken up for farming in the United States throughout and beyond the nineteenth century. In the 1890's, when agrarian discontent
 - (15) had become most acute, 1,100,000 new farms were settled, which was 500,000 more than had been settled during the previous decade. After 1890, under the terms of the Homestead Act and its successors, more new land was taken up for
 - (20) farming than had been taken up for this purpose in the United States up until that time. It is true that a high proportion of the newly farmed land was suitable only for grazing and dry farming, but agricultural practices had become sufficiently advanced to make it possible to increase the profitability of farming by utilizing even these relatively barren lands.
 - (25) The emphasis given by both scholars and statesmen to the presumed disappearance of the American frontier helped to obscure the great importance of changes in the conditions and consequences of international trade that occurred during the second half of the nineteenth century. In 1869 the Suez Canal was opened and
 - (30) the first transcontinental railroad in the United States was completed. An extensive network of telegraph and telephone communications was spun: Europe was connected by submarine cable with the United States in 1866 and with
 - (35) South America in 1874. By about 1870 improvements in agricultural technology made possible the full exploitation of areas that were most suitable for extensive farming on a mechanized basis. Huge tracts of land were being settled and
 - (40) farmed in Argentina, Australia, Canada, and in the American West, and these areas were joined with one another and with the countries of Europe into an interdependent market system. As a consequence, agrarian depressions no
 - (45) longer were local or national in scope, and they struck several nations whose internal frontiers had not vanished or were not about to vanish. Between the early 1870's and the 1890's, the mounting agrarian discontent in America paralleled the almost uninterrupted decline in the prices of American agricultural products on foreign markets. Those staple-growing farmers

- in the United States who exhibited the greatest discontent were those who had become most dependent on foreign markets for the sale of their products. Insofar as Americans had been deterred from taking up new land for farming, it was because market conditions had made this period a perilous time in which to do so.
20. The author is primarily concerned with
- (A) showing that a certain interpretation is better supported by the evidence than is an alternative explanation
 - (B) developing an alternative interpretation by using sources of evidence that formerly had been unavailable
 - (C) questioning the accuracy of the evidence that most scholars have used to counter the author's own interpretation
 - (D) reviewing the evidence that formerly had been thought to obscure a valid interpretation
 - (E) presenting evidence in support of a controversial version of an earlier interpretation
21. According to the author, changes in the conditions of international trade resulted in an
- (A) underestimation of the amount of new land that was being farmed in the United States
 - (B) underutilization of relatively small but rich plots of land
 - (C) overexpansion of the world transportation network for shipping agricultural products
 - (D) extension of agrarian depressions beyond national boundaries
 - (E) emphasis on the importance of market forces in determining the prices of agricultural products

GO ON TO THE NEXT PAGE.

22. The author implies that the change in the state of the American farmer's morale during the latter part of the nineteenth century was traceable to the American farmer's increasing perception that the
- (A) costs of cultivating the land were prohibitive within the United States
 - (B) development of the first transcontinental railroad in the United States occurred at the expense of the American farmer
 - (C) American farming system was about to run out of the new farmland that was required for its expansion
 - (D) prices of American agricultural products were deteriorating especially rapidly on domestic markets
 - (E) proceeds from the sales of American agricultural products on foreign markets were unsatisfactory
23. According to the passage, which of the following occurred prior to 1890?
- (A) Frederick J. Turner's thesis regarding the American frontier became influential.
 - (B) The Homestead Act led to an increase in the amount of newly farmed land in the United States.
 - (C) The manufacturers of technologically advanced agricultural machinery rapidly increased their marketing efforts.
 - (D) Direct lines of communication were constructed between the United States and South America.
 - (E) Technological advances made it fruitful to farm extensively on a mechanized basis.
24. The author implies that, after certain territories and countries had been joined into an inter-dependent market system in the nineteenth century, agrarian depressions within that system
- (A) spread to several nations, excluding those in which the internal frontier remained open
 - (B) manifested themselves in several nations, including those in which new land remained available for farming
 - (C) slowed down the pace of new technological developments in international communications and transportation
 - (D) affected the local and national prices of the nonagricultural products of several nations
 - (E) encouraged several nations to sell more of their agricultural products on foreign markets
25. The author provides information concerning newly farmed lands in the United States (lines 11-27) as evidence in direct support of which of the following?
- (A) A proposal by Frederick J. Turner that was later disputed by John D. Hicks
 - (B) An elaboration by John D. Hicks of a thesis that formerly had been questioned by Frederick J. Turner.
 - (C) The established view that was disputed by those scholars who adopted the thesis of Frederick J. Turner
 - (D) The thesis that important changes occurred in the nature of international trade during the second half of the nineteenth century
 - (E) The view that the American frontier did not become closed during the nineteenth century or soon thereafter
26. The author implies that the cause of the agrarian discontent was
- (A) masked by the vagueness of the official records on newly settled farms
 - (B) overshadowed by disputes on the reliability of the existing historical evidence
 - (C) misidentified as a result of influential but erroneous theorizing
 - (D) overlooked because of a preoccupation with market conditions
 - (E) undetected because visible indications of the cause occurred so gradually and sporadically
27. The author's argument implies that, compared to the yearly price changes that actually occurred on foreign agricultural markets during the 1880's, American farmers would have most preferred yearly price changes that were
- (A) much smaller and in the same direction
 - (B) much smaller but in the opposite direction
 - (C) slightly smaller and in the same direction
 - (D) similar in size but in the opposite direction
 - (E) slightly greater and in the same direction

GO ON TO THE NEXT PAGE.

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. CONTAMINATE: (A) distill (B) embellish
(C) purify (D) ameliorate (E) rehabilitate
29. FOCUS: (A) equate (B) diffuse
(C) permit (D) dissect (E) abstract
30. UNDERMINE: (A) originate (B) plan
(C) smooth (D) reinforce (E) resume
31. FLUKE:
(A) reexamined opinion
(B) expected occurrence
(C) observed experiment
(D) burst of insight
(E) lack of judgment
32. PREEN: (A) envelop (B) offend
(C) confine (D) antagonize (E) rumple

33. DIN: (A) resonance (B) weakness
(C) hush (D) uninhabitable place
(E) unobstructed view
34. QUIESCEENCE: (A) strong conviction
(B) restless activity (C) rapid decline
(D) ambivalence (E) courtesy
35. OBDURATE: (A) fluent (B) demonstrative
(C) duplicitous (D) complaisant
(E) ineffectual
36. SALUBRIOUS:
(A) unhealthy (B) unpalatable
(C) insipid (D) steadily weakening
(E) awkwardly located
37. BALEFUL: (A) beneficent
(B) undemanding (C) eloquent
(D) enticing (E) extroverted
38. VERDANT: (A) tranquil (B) ominous
(C) lucid (D) tepid (E) sere

FOR GENERAL TEST 16 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 4			Section 2			Section 5			Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	A	87	1	C	85	1	B	90	1	A	85	1	B	60	1	B	83
2	D	69	2	B	74	2	D	86	2	C	93	2	E	77	2	E	79
3	E	60	3	A	64	3	C	93	3	D	55	3	A	66	3	A	89
4	E	64	4	E	54	4	A	86	4	A	86	4	C	81	4	C	82
5	B	54	5	D	64	5	A	76	5	B	81	5	A	80	5	A	67
6	D	50	6	B	61	6	B	84	6	D	66	6	B	49	6	D	60
7	C	36	7	E	34	7	C	76	7	B	74	7	C	81	7	B	78
8	B	92	8	A	94	8	B	65	8	A	62	8	C	79	8	E	59
9	A	76	9	A	75	9	B	36	9	C	64	9	D	66	9	E	80
10	B	67	10	B	77	10	A	63	10	B	57	10	E	58	10	E	59
11	E	63	11	D	57	11	O	49	11	D	47	11	C	62	11	D	49
12	C	52	12	A	62	12	B	52	12	B	46	12	B	70	12	A	52
13	O	45	13	C	54	13	A	61	13	A	41	13	B	47	13	C	50
14	B	46	14	A	40	14	O	43	14	C	35	14	O	55	14	D	68
15	B	27	15	B	45	15	C	38	15	C	27	15	B	56	15	B	36
16	B	16	16	E	26	16	D	93	16	D	94	16	E	30	16	B	41
17	E	70	17	C	89	17	B	88	17	D	85	17	A	36	17	B	63
18	D	78	18	C	88	18	B	83	18	B	85	18	D	26	18	A	36
19	C	41	19	A	70	19	C	71	19	E	70	19	A	43	19	E	22
20	A	47	20	A	28	20	E	65	20	C	68	20	C	43	20	D	54
21	D	55	21	D	54	21	O	75	21	E	76	21	C	41	21	C	31
22	B	38	22	E	42	22	B	69	22	C	75	22	A	19	22	E	11
23	C	52	23	E	22	23	O	35	23	C	43	23	E	25	23	D	38
24	E	67	24	B	53	24	B	27	24	B	49	24	E	33	24	D	24
25	C	56	25	E	51	25	E	8	25	E	61	25	E	27	25	C	41
26	E	31	26	C	54	26	E	58	26	C	73						
27	D	52	27	O	47	27	C	53	27	E	51						
28	B	94	28	C	90	28	A	37	28	A	45						
29	E	90	29	B	82	29	O	35	29	A	38						
30	A	66	30	D	81	30	O	32	30	B	37						
31	B	76	31	B	75												
32	C	57	32	E	56												
33	A	54	33	C	51												
34	B	48	34	B	39												
35	D	29	35	D	44												
36	A	36	36	A	35												
37	A	30	37	A	24												
38	D	24	38	E	18												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 17

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. Created to serve as perfectly as possible their workaday ----, the wooden storage boxes made in America's Shaker communities are now ---- for their beauty.
(A) environment. .accepted
(B) owners. .employed
(C) function. .valued
(D) reality. .transformed
(E) image. .seen
2. In order to ----- her theory that the reactions are -----, the scientist conducted many experiments, all of which showed that the heat of the first reaction is more than twice that of the second.
(A) support. .different
(B) comprehend. .constant
(C) evaluate. .concentrated
(D) capture. .valuable
(E) demonstrate. .problematic
3. The sheer bulk of data from the mass media seems to overpower us and drive us to ---- accounts for an easily and readily digestible portion of news.
(A) insular (B) investigative (C) synoptic
(D) subjective (E) sensational
4. William James lacked the usual ----- death; writing to his dying father, he spoke without ---- about the old man's impending death.
(A) longing for. .regret
(B) awe of. .inhibition
(C) curiosity about. .rancor
(D) apprehension of. .eloquence
(E) anticipation of. .commiseration
5. Current data suggest that, although ----- states between fear and aggression exist, fear and aggression are as distinct physiologically as they are psychologically.
(A) simultaneous
(B) serious
(C) exceptional
(D) partial
(E) transitional
6. It is ironic that a critic of such overwhelming vanity now suffers from a measure of the oblivion to which he was forever ----- others; in the end, all his ----- has only worked against him.
(A) dedicating. .self-possession
(B) leading. .self-righteousness
(C) consigning. .self-adulation
(D) relegating. .self-sacrifice
(E) condemning. .self-analysis
7. Famous among job seekers for its ----, the company, quite apart from generous salaries, bestowed on its executives annual bonuses and such ---- as low-interest home mortgages and company cars.
(A) magnanimity. .reparations
(B) inventiveness. .benefits
(C) largesse. .perquisites
(D) discernment. .prerogatives
(E) altruism. .credits

GO ON TO THE NEXT PAGE.

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. WEB : SPIDER :: (A) flower : bee
(B) canal : otter (C) nest : bird
(D) acorn : squirrel (E) bait : fish
9. FOUR-POSTER : BED ::
(A) convertible : automobile
(B) soldier : army
(C) student : school
(D) chlorine : water
(E) paper : wood
10. BONE : BODY :: (A) scaffold : hinge
(B) brace : corner (C) strut : buttress
(D) lattice : division (E) girder : skyscraper
11. SCOOP : CONCAVE :: (A) tongs : hollow
(B) spatula : flat (C) beater : tined
(D) cleaver : indented (E) skewer : rounded
12. SYMBOLS : REBUS ::
(A) notes : score
(B) military : insignia
(C) proportions : recipe
(D) program : computer
(E) silversmith : hallmark
13. GUSH : EFFUSIVE ::
(A) exult : honest
(B) deliberate : secretive
(C) giggle : innocent
(D) rage : irate
(E) whisper : confidential
14. PERORATION : SPEECH ::
(A) tempo : movement (B) figure : portrait
(C) light : shadow (D) verse : stanza
(E) coda : sonata
15. INTERREGNUM : GOVERNMENT ::
(A) splice : rope (B) cleavage : crystal
(C) infraction : law (D) frequency : wave
(E) hibernation : activity
16. EMBROIDER : CLOTH ::
(A) chase : metal
(B) patch : quilt
(C) gild : gold
(D) carve : knife
(E) stain : glass

GO ON TO THE NEXT PAGE.

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.

Visual recognition involves storing and retrieving memories. Neural activity, triggered by the eye, forms an image in the brain's memory system that constitutes an internal representation of the viewed object. When an object is encountered again, it is matched with its internal representation and thereby recognized. Controversy surrounds the question of whether recognition is a parallel, one-step process or a serial, step-by-step one. Psychologists of the Gestalt school maintain that objects are recognized as wholes in a parallel procedure: the internal representation is matched with the retinal image in a single operation. Other psychologists have proposed that internal representation features are matched serially with an object's features. Although some experiments show that, as an object becomes familiar, its internal representation becomes more holistic and the recognition process correspondingly more parallel, the weight of evidence seems to support the serial hypothesis, at least for objects that are not notably simple and familiar.

17. The author is primarily concerned with
 - (A) explaining how the brain receives images
 - (B) synthesizing hypotheses of visual recognition
 - (C) examining the evidence supporting the serial-recognition hypothesis
 - (D) discussing visual recognition and some hypotheses proposed to explain it
 - (E) reporting on recent experiments dealing with memory systems and their relationship to neural activity

18. According to the passage, Gestalt psychologists make which of the following suppositions about visual recognition?
 - I. A retinal image is in exactly the same form as its internal representation.
 - II. An object is recognized as a whole without any need for analysis into component parts.
 - III. The matching of an object with its internal representation occurs in only one step.

(A) II only
(B) III only
(C) I and III only
(D) II and III only
(E) I, II, and III

19. It can be inferred from the passage that the matching process in visual recognition is
 - (A) not a neural activity
 - (B) not possible when an object is viewed for the very first time
 - (C) not possible if a feature of a familiar object is changed in some way
 - (D) only possible when a retinal image is received in the brain as a unitary whole
 - (E) now fully understood as a combination of the serial and parallel processes

20. In terms of its tone and form, the passage can best be characterized as
 - (A) a biased exposition
 - (B) a speculative study
 - (C) a dispassionate presentation
 - (D) an indignant denial
 - (E) a dogmatic explanation

GO ON TO THE NEXT PAGE.

In large part as a consequence of the feminist movement, historians have focused a great deal of attention in recent years on determining more accurately the status of women in various periods. Although much has been accomplished for the modern period, premodern cultures have proved more difficult: sources are restricted in number, fragmentary, difficult to interpret, and often contradictory. Thus it is not particularly surprising that some earlier scholarship concerning such cultures has so far gone unchallenged. An example is Johann Bachofen's 1861 treatise on Amazons, women-ruled societies of questionable existence contemporary with ancient Greece.

Starting from the premise that mythology and legend preserve at least a nucleus of historical fact, Bachofen argued that women were dominant in many ancient societies. His work was based on a comprehensive survey of references in the ancient sources to Amazonian and other societies with matrilineal customs—societies in which descent and property rights are traced through the female line. Some support for his theory can be found in evidence such as that drawn from Herodotus, the Greek "historian" of the fifth century B.C., who speaks of an Amazonian society, the Sauromatae, where the women hunted and fought in wars. A woman in this society was not allowed to marry until she had killed a person in battle.

Nonetheless, this assumption that the first recorders of ancient myths have preserved facts is problematic. If one begins by examining why ancients refer to Amazons, it becomes clear that ancient Greek descriptions of such societies were meant not so much to represent observed historical fact—real Amazonian societies—but rather to offer "moral lessons" on the supposed outcome of women's rule in their own society. The Amazons were often characterized, for example, as the equivalents of giants and centaurs, enemies to be slain by Greek heroes. Their customs were presented not as those of a respectable society, but as the very antitheses of ordinary Greek practices.

Thus, I would argue, the purpose of accounts of the Amazons for their male Greek recorders was didactic, to teach both male and female Greeks that all-female groups, formed by withdrawal from traditional society, are destructive and dangerous. Myths about the Amazons were used as arguments for the male-dominated status quo, in which groups composed exclusively of either sex were not permitted to segregate themselves permanently from society. Bachofen was thus misled in his reliance on myths for information about the status of women. The sources that will probably tell contemporary historians most about women in the ancient world are such social documents as gravestones, wills, and marriage contracts. Studies of such documents have already begun to show how mistaken we are when we try to derive our picture of the ancient world exclusively from literary sources, especially myths.

21. The primary purpose of the passage is to

- (A) compare competing new approaches to understanding the role of women in ancient societies
- (B) investigate the ramifications of Bachofen's theory about the dominance of women in ancient societies
- (C) explain the burgeoning interest among historians in determining the actual status of women in various societies
- (D) analyze the nature of Amazonian society and uncover similarities between it and the Greek world
- (E) criticize the value of ancient myths in determining the status of women in ancient societies

22. All of the following are stated by the author as problems connected with the sources for knowledge of premodern cultures EXCEPT

- (A) partial completeness
- (B) restricted accessibility
- (C) difficulty of interpretation
- (D) limited quantity
- (E) tendency toward contradiction

23. Which of the following can be inferred from the passage about the myths recorded by the ancient Greeks?

- I. They sometimes included portrayals of women holding positions of power.
 - II. They sometimes contained elaborate explanations of inheritance customs.
 - III. They comprise almost all of the material available to historians about ancient Greece.
- (A) I only (B) III only (C) I and III only
 - (D) II and III only (E) I, II, and III

GO ON TO THE NEXT PAGE.

24. Which of the following is presented in the passage as evidence supporting the author's view of the ancient Greeks' descriptions of the Amazons?
- (A) The requirement that Sauromatae women kill in battle before marrying
(B) The failure of historians to verify that women were ever governors of ancient societies
(C) The classing of Amazons with giants and centaurs
(D) The well-established unreliability of Herodotus as a source of information about ancient societies
(E) The recent discovery of ancient societies with matrilineal customs
25. It can be inferred from the passage that the probable reactions of many males in ancient Greece to the idea of a society ruled by women could best be characterized as
- (A) confused and dismayed
(B) wary and hostile
(C) cynical and disinterested
(D) curious but fearful
(E) excited but anxious
26. The author suggests that the main reason for the persisting influence of Bachofen's work is that
- (A) feminists have shown little interest in ancient societies
(B) Bachofen's knowledge of Amazonian culture is unparalleled
(C) reliable information about the ancient world is difficult to acquire
(D) ancient societies show the best evidence of women in positions of power
(E) historians have been primarily interested in the modern period
27. The author's attitude toward Bachofen's treatise is best described as one of
- (A) qualified approval
(B) profound ambivalence
(C) studied neutrality
(D) pointed disagreement
(E) unmitigated hostility

GO ON TO THE NEXT PAGE.

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. COLLECT : (A) scatter (B) avoid
(C) hide (D) search (E) create

29. SERRATED : (A) without joints
(B) without folds (C) without notches
(D) variegated (E) mutated

30. FLEDGLING :
(A) experienced practitioner
(B) successful competitor
(C) reluctant volunteer
(D) recent convert
(E) attentive listener

31. SUPPOSITION :
(A) certainty
(B) inferiority
(C) irrelevance
(D) unexpected occurrence
(E) clear position

32. ABERRANT : (A) attractive (B) predictive
(C) blissful (D) normal (E) precise

33. OBDURATE : (A) flexible
(B) timid (C) retrospective
(D) whimsical (E) alienated

34. LIST : (A) be upside down
(B) be upright (C) slide backward
(D) sway to and fro (E) lie flat

35. FORESTALL : (A) announce
(B) equivocate (C) prolong
(D) precipitate (E) steady

36. TENDENTIOUS : (A) unbiased
(B) severely hampered (C) inapplicable
(D) highly productive (E) curved

37. REDUNDANT : (A) consistent
(B) complex (C) diffuse
(D) insightful (E) economical

38. RUE : (A) tenderness (B) sincerity
(C) heartiness (D) spite (E) satisfaction

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. There are no solitary, free-living creatures; every form of life is ----- other forms.
(A) segregated from (B) parallel to
(C) dependent on (D) overshadowed by
(E) mimicked by
2. The sale of Alaska was not so much an American coup as a matter of ----- for an imperial Russia that was short of cash and unable to ----- its own continental coastline.
(A) negligence . fortify
(B) custom . maintain
(C) convenience . stabilize
(D) expediency . defend
(E) exigency . reinforce
3. Despite assorted effusions to the contrary, there is no necessary link between scientific skill and humanism, and, quite possibly, there may be something of a ----- between them.
(A) generality (B) fusion (C) congruity
(D) dichotomy (E) reciprocity
4. A common argument claims that in folk art, the artist's subordination of technical mastery to intense feeling ----- the direct communication of emotion to the viewer.
(A) facilitates (B) averts (C) neutralizes
(D) implies (E) represses
5. While not completely nonplussed by the unusually caustic responses from members of the audience, the speaker was nonetheless visibly ----- by their lively criticism.
(A) humiliated
(B) discomfited
(C) deluded
(D) disgraced
(E) tantalized
6. In eighth-century Japan, people who ----- wasteland were rewarded with official ranks as part of an effort to overcome the shortage of ----- fields.
(A) conserved . forested
(B) reclaimed . arable
(C) cultivated . domestic
(D) irrigated . accessible
(E) located . desirable
7. If duty is the natural ----- of one's ----- the course of future events, then people who are powerful have duty placed on them whether they like it or not.
(A) correlate . understanding of
(B) outgrowth . control over
(C) determinant . involvement in
(D) mitigant . preoccupation with
(E) arbiter . responsibility for

GO ON TO THE NEXT PAGE.

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. COMA : UNCONSCIOUSNESS ::

- (A) amnesia : effort
- (B) delirium : confusion
- (C) paralysis : pain
- (D) hallucination : numbness
- (E) fever : calm

9. TOURNIQUET : BLOOD :: (A) bridge : river
(B) antiseptic : surgery (C) dam : water
(D) pressure : air (E) bucket : well

10. FOUNDATION : HOUSE ::

- (A) mountain : tunnel
- (B) ground : sky
- (C) net : trapeze
- (D) pedestal : statue
- (E) pole : banner

11. PHILATELIST : STAMPS ::

- (A) numismatist : coins
- (B) astrologer : predictions
- (C) geneticist : chromosomes
- (D) cartographer : maps
- (E) pawnbroker : jewelry

12. INSECT : BUTTERFLY ::

- (A) perfume : essence
- (B) botany : chrysanthemum
- (C) philosophy : metaphysics
- (D) pitch : black
- (E) color : brightness

13. PERNICIOUS : INJURE ::

- (A) officious : deny
- (B) propitious : conjure
- (C) audacious : allude
- (D) avaricious : dispel
- (E) disingenuous : mislead

14. FLAG : VIGOR :: (A) endure : courage
(B) tire : monotony (C) question : perception
(D) waver : resolution (E) flatter : charm

15. EMBARRASS : MORTIFY ::

- (A) adumbrate : insinuate
- (B) indulge : mollycoddle
- (C) aggrandize : venerate
- (D) relent : deflate
- (E) upstage : demoralize

16. DISTILL : PURITY ::

- (A) leaven : volume
- (B) pulverize : fragility
- (C) absorb : brilliance
- (D) homogenize : fluidity
- (E) conduct : charge

GO ON TO THE NEXT PAGE.

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.

Initially the Vinaver theory that Malory's eight romances, once thought to be fundamentally unified, were in fact eight independent works produced both a sense of relief and an unpleasant shock. Vinaver's theory comfortably explained away the apparent contradictions of chronology and made each romance independently satisfying. It was, however, disagreeable to find that what had been thought of as one book was now eight books. Part of this response was the natural reaction to the disturbance of set ideas. Nevertheless, even now, after lengthy consideration of the theory's refined but legitimate observations, one cannot avoid the conclusion that the eight romances are only one work. It is not quite a matter of disagreeing with the theory of independence, but of rejecting its implications: that the romances may be taken in any or no particular order, that they have no cumulative effect, and that they are as separate as the works of a modern novelist.

17. The primary purpose of the passage is to
- (A) discuss the validity of a hypothesis
 - (B) summarize a system of general principles
 - (C) propose guidelines for future argument
 - (D) stipulate conditions for acceptance of an interpretation
 - (E) deny accusations about an apparent contradiction
18. It can be inferred from the passage that the author believes which of the following about Malory's works?
- I. There are meaningful links between and among the romances.
 - II. The subtleties of the romances are obscured when they are taken as one work.
 - III. Any contradictions in chronology among the romances are less important than their overall unity.
- (A) I only
 - (B) III only
 - (C) I and III only
 - (D) II and III only
 - (E) I, II, and III

19. The author of the passage concedes which of the following about the Vinaver theory?
- (A) It gives a clearer understanding of the unity of Malory's romances.
 - (B) It demonstrates the irrationality of considering Malory's romances to be unified.
 - (C) It establishes acceptable links between Malory's romances and modern novels.
 - (D) It unifies earlier and later theories concerning the chronology of Malory's romances.
 - (E) It makes valid and subtle comments about Malory's romances.
20. It can be inferred from the passage that, in evaluating the Vinaver theory, some critics were
- (A) frequently misled by the inconsistencies in Malory's work
 - (B) initially biased by previous interpretations of Malory's work
 - (C) conceptually displeased by the general interpretation that Vinaver rejected
 - (D) generally in agreement with Vinaver's comparisons between Malory and modern novelists
 - (E) originally skeptical about Vinaver's early conclusions with respect to modern novels

GO ON TO THE NEXT PAGE.

We can distinguish three different realms of matter, three levels on the quantum ladder. The first is the atomic realm, which includes the world of atoms, their interactions, and the structures that are formed by them, such as molecules, liquids and solids, and gases and plasmas. This realm includes all the phenomena of atomic physics, chemistry, and, in a certain sense, biology. The energy exchanges taking place in this realm are of a relatively low order. If these exchanges are below one electron volt, such as in the collisions between molecules of the air in a room, then atoms and molecules can be regarded as elementary particles. That is, they have "conditional elementarity" because they keep their identity and do not change in any collisions or in other processes at these low energy exchanges. If one goes to higher energy exchanges, say 10^4 electron volts, then atoms and molecules will decompose into nuclei and electrons; at this level, the latter particles must be considered as elementary. We find examples of structures and processes of this first rung of the quantum ladder on Earth, on planets, and on the surfaces of stars.

The next rung is the nuclear realm. Here the energy exchanges are much higher, on the order of millions of electron volts. As long as we are dealing with phenomena in the atomic realm, such amounts of energy are unavailable, and most nuclei are inert: they do not change. However, if one applies energies of millions of electron volts, nuclear reactions, fission and fusion, and the processes of radioactivity occur; our elementary particles then are protons, neutrons, and electrons. In addition, nuclear processes produce neutrinos, particles that have no detectable mass or charge. In the universe, energies at this level are available in the centers of stars and in star explosions. Indeed, the energy radiated by the stars is produced by nuclear reactions. The natural

radioactivity we find on Earth is the long-lived remnant of the time when now-earthly matter was expelled into space by a major stellar explosion.

The third rung of the quantum ladder is the subnuclear realm. Here we are dealing with energy exchanges of many billions of electron volts. We encounter excited nucleons, new types of particles such as mesons, heavy electrons, quarks, and gluons, and also antimatter in large quantities. The gluons are the quanta, or smallest units, of the force (the strong force) that keeps the quarks together. As long as we are dealing with the atomic or nuclear realm, these new types of particles do not occur and the nucleons remain inert. But at subnuclear energy levels, the nucleons and mesons appear to be composed of quarks, so that the quarks and gluons figure as elementary particles.

21. The primary topic of the passage is which of the following?

- (A) The interaction of the realms on the quantum ladder
- (B) Atomic structures found on Earth, on other planets, and on the surfaces of stars
- (C) Levels of energy that are released in nuclear reactions on Earth and in stars
- (D) Particles and processes found in the atomic, nuclear, and subnuclear realms
- (E) New types of particles occurring in the atomic realm

GO ON TO THE NEXT PAGE.

22. According to the passage, radioactivity that occurs naturally on Earth is the result of
- (A) the production of particles that have no detectable mass or electric charge
 - (B) high energy exchanges on the nuclear level that occurred in an ancient explosion in a star
 - (C) processes that occur in the center of the Sun, which emits radiation to the Earth
 - (D) phenomena in the atomic realm that cause atoms and molecules to decompose into nuclei and electrons
 - (E) high-voltage discharges of electricity that took place in the atmosphere of the Earth shortly after the Earth was formed
23. The author organizes the passage by
- (A) making distinctions between two groups of particles, those that are elementary and those that are composite
 - (B) explaining three methods of transferring energy to atoms and to the smaller particles that constitute atoms
 - (C) describing several levels of processes, increasing in energy, and corresponding sets of particles, generally decreasing in size
 - (D) putting forth an argument concerning energy levels and then conceding that several qualifications of that argument are necessary
 - (E) making several successive refinements of a definition of elementarity on the basis of several groups of experimental results
24. According to the passage, which of the following can be found in the atomic realm?
- (A) More than one level of energy exchange
 - (B) Exactly one elementary particle
 - (C) Exactly three kinds of atomic structures
 - (D) Three levels on the quantum ladder
 - (E) No particles smaller than atoms
25. According to the author, gluons are not
- (A) considered to be detectable
 - (B) produced in nuclear reactions
 - (C) encountered in subnuclear energy exchanges
 - (D) related to the strong force
 - (E) found to be conditionally elementary
26. At a higher energy level than the subnuclear level described, if such a higher level exists, it can be expected on the basis of the information in the passage that there would probably be
- (A) excited nucleons
 - (B) elementary mesons
 - (C) a kind of particle without detectable mass or charge
 - (D) exchanges of energy on the order of millions of electron volts
 - (E) another set of elementary particles
27. The passage speaks of particles as having conditional elementarity if they
- (A) remain unchanged at a given level of energy exchange
 - (B) cannot be decomposed into smaller constituents
 - (C) are mathematically simpler than some other set of particles
 - (D) release energy at a low level in collisions
 - (E) belong to the nuclear level on the quantum ladder

GO ON TO THE NEXT PAGE.

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. PARTITION: (A) unify (B) mollify
(C) nullify (D) indemnify (E) fortify
29. ABHOR: (A) greatly admire
(B) promise absolutely (C) inspire
(D) credit (E) improve
30. TAINTED: (A) available (B) strident
(C) conspicuous (D) wholesome
(E) insensible
31. CARDINAL: (A) abstract (B) elusive
(C) subtle (D) minor (E) miniature
32. ESTRANGEMENT:
(A) reconciliation (B) dissemblance
(C) consolation (D) chaotic situation
(E) continuous negotiation
33. ABATE: (A) attach (B) alter
(C) absent (D) assist (E) augment
34. DOFF: (A) raze (B) don (C) ply
(D) clasp tightly (E) hide carefully
35. ERUDITE: (A) unsettled
(B) unfettered (C) untalented
(D) untitled (E) unlettered
36. GARRULITY: (A) servility
(B) forbearance (C) peacefulness
(D) constancy (E) taciturnity
37. SCOTCH: (A) entrust (B) emphasize
(C) encourage (D) renovate
(E) unfasten
38. LIBERTINE: (A) serf (B) miser
(C) prisoner (D) ascetic
(E) authoritarian

FOR GENERAL TEST 17 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 2			Section 3			Section 4			Section 5			Section 6		
Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +
1	C	83	1	C	91	1	A	95	1	B	90	1	A	71	1	E	87
2	A	80	2	D	56	2	C	92	2	C	89	2	A	64	2	A	91
3	C	57	3	D	66	3	B	84	3	C	89	3	B	53	3	B	94
4	B	59	4	A	72	4	B	83	4	D	85	4	C	71	4	A	70
5	E	51	5	B	63	5	D	81	5	A	82	5	A	69	5	D	70
6	C	47	6	B	46	6	A	76	6	B	82	6	C	66	6	A	81
7	C	21	7	B	48	7	A	74	7	C	82	7	E	91	7	E	51
8	C	92	8	B	88	8	A	81	8	B	80	8	D	63	8	C	69
9	A	86	9	C	89	9	B	69	9	C	69	9	B	74	9	B	67
10	E	82	10	D	88	10	D	59	10	A	58	10	D	50	10	E	38
11	B	77	11	A	68	11	C	60	11	A	58	11	E	35	11	D	30
12	A	45	12	C	55	12	A	49	12	B	65	12	B	56	12	A	33
13	D	55	13	E	39	13	C	49	13	D	59	13	E	41	13	E	32
14	E	21	14	D	37	14	C	41	14	A	42	14	A	46	14	D	70
15	E	17	15	B	22	15	D	31	15	D	49	15	C	37	15	B	46
16	A	9	16	A	27	16	A	95	16	A	95	16	D	53	16	C	41
17	D	79	17	A	44	17	D	90	17	E	77	17	A	40	17	E	36
18	D	43	18	C	51	18	D	80	18	B	74	18	C	33	18	A	42
19	B	58	19	E	25	19	E	81	19	D	72	19	D	21	19	D	27
20	C	36	20	B	38	20	E	53	20	C	59	20	E	27	20	D	39
21	E	64	21	D	64	21	B	83	21	B	91	21	B	33	21	D	26
22	B	53	22	B	69	22	A	76	22	B	81	22	D	19	22	C	37
23	A	59	23	C	72	23	E	49	23	D	55	23	B	51	23	C	55
24	C	58	24	A	40	24	D	47	24	C	58	24	C	49	24	B	41
25	B	70	25	B	42	25	D	48	25	C	46	25	E	44	25	C	50
26	C	63	26	E	49	26	C	45	26	B	61						
27	D	76	27	A	58	27	B	51	27	C	57						
28	A	94	28	A	91	28	C	47	28	D	29						
29	C	71	29	A	86	29	A	36	29	A	34						
30	A	66	30	D	83	30	A	25	30	E	36						
31	A	60	31	D	73												
32	D	43	32	A	73												
33	A	45	33	E	46												
34	B	45	34	B	50												
35	D	39	35	E	25												
36	A	37	36	E	31												
37	E	38	37	C	25												
38	E	27	38	D	20												

*Estimated P + for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 18

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. Physicists rejected the innovative experimental technique because, although it —— some problems, it also produced new ——.
(A) clarified..data
(B) eased..interpretations
(C) resolved..complications
(D) caused..hypotheses
(E) revealed..inconsistencies
- * 2. During a period of protracted illness, the sick can become infirm, —— both the strength to work and many of the specific skills they once possessed.
(A) regaining (B) denying (C) pursuing
(D) insuring (E) losing
3. The pressure of population on available resources is the key to understanding history; consequently, any historical writing that takes no cognizance of —— facts is —— flawed.
(A) demographic..intrinsically
(B) ecological..marginally
(C) cultural..substantively
(D) psychological..philosophically
(E) political..demonstratively
4. It is puzzling to observe that Jones's novel has recently been criticized for its —— structure, since commentators have traditionally argued that its most obvious —— is its relentlessly rigid, indeed schematic, framework.
(A) attention to..preoccupation
(B) speculation about..characteristic
(C) parody of..disparity
(D) violation of..contradiction
(E) lack of..flaw
5. It comes as no surprise that societies have codes of behavior; the character of the codes, on the other hand, can often be ——.
(A) predictable (B) unexpected
(C) admirable (D) explicit (E) confusing
6. The characterization of historical analysis as a form of fiction is not likely to be received —— by either historians or literary critics, who agree that history and fiction deal with —— orders of experience.
(A) quietly..significant
(B) enthusiastically..shifting
(C) passively..unusual
(D) sympathetically..distinct
(E) contentiously..realistic
7. For some time now, —— has been presumed not to exist: the cynical conviction that everybody has an angle is considered wisdom.
(A) rationality
(B) flexibility
(C) diffidence
(D) disinterestedness
(E) insincerity

GO ON TO THE NEXT PAGE.

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. STUDY:LEARN :: (A) pervade:encompass
(B) search:find (C) gather:win
(D) agree:keep (E) accumulate:raise
9. CORRAL:HORSES :: (A) den:lions
(B) meadow:sheep (C) herd:cattle
(D) nest:birds (E) coop:chickens
10. LULLABY:SONG ::
(A) narrative:volume
(B) lecture:tutor
(C) paragraph:page
(D) diatribe:discourse
(E) invective:compliment
11. DIE:SHAPING :: (A) glue:attaching
(B) anchor:sailing (C) drill:boring
(D) pedal:propelling (E) ink:printing
12. MERCENARY:MONEY ::
(A) vindictive:revenge
(B) scholarly:library
(C) immaculate:cleanliness
(D) thirsty:water
(E) belligerent:invasion
13. AUTHITATIVENESS:PUNDITS ::
(A) dedication:signatories
(B) sobriety:executors
(C) sensitivity:literati
(D) recklessness:warriors
(E) allegiance:partisans
14. STRUT:WING :: (A) lever:handle
(B) axle:wheel (C) buttress:wall
(D) beam:rivet (E) well:pipe
15. FAWN:IMPERIOUSNESS ::
(A) equivocate:directness
(B) elaborate:originality
(C) boggle:imagination
(D) manipulate:repression
(E) coddle:permissiveness
16. TROUBLED:DISTRAUGHT ::
(A) annoyed:disillusioned
(B) disturbed:interrupted
(C) covetous:rapacious
(D) outmoded:ostentatious
(E) tranquil:placid

GO ON TO THE NEXT PAGE.

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.

- The evolution of intelligence among early large mammals of the grasslands was due in great measure to the interaction between two ecologically synchronized groups of these animals, the hunting carnivores and the herbivores that they hunted. The interaction resulting from the differences between predator and prey led to a general improvement in brain functions; however, certain components of intelligence were improved far more than others.
- The kind of intelligence favored by the interplay of increasingly smarter catchers and increasingly keener escapers is defined by attention—that aspect of mind carrying consciousness forward from one moment to the next. It ranges from a passive, free-floating awareness to a highly focused, active fixation. The range through these states is mediated by the arousal system, a network of tracts converging from sensory systems to integrating centers in the brain stem. From the more relaxed to the more vigorous levels, sensitivity to novelty is increased. The organism is more awake, more vigilant; this increased vigilance results in the apprehension of ever more subtle signals as the organism becomes more sensitive to its surroundings. The processes of arousal and concentration give attention its direction. Arousal is at first general, with a flooding of impulses in the brain stem; then gradually the activation is channeled. Thus begins concentration, the holding of consistent images. One meaning of intelligence is the way in which these images and other alertly searched information are used in the context of previous experience. Consciousness links past attention to the present and permits the integration of details with perceived ends and purposes.
- The elements of intelligence and consciousness come together marvelously to produce different styles in predator and prey. Herbivores and carnivores develop different kinds of attention related to escaping or chasing. Although in both kinds of animal, arousal stimulates the production of adrenaline and norepinephrine by the adrenal glands, the effect in herbivores is primarily fear, whereas in carnivores the effect is primarily aggression. For both, arousal attunes the animal to what is ahead. Perhaps it does not experience forethought as we know it, but the animal does experience something like it. The predator is searchingly aggressive, innerdirected, tuned by the nervous system and the adrenal hormones, but aware in a sense closer to human

- (55) consciousness than, say, a hungry lizard's instinctive snap at a passing beetle. Using past events as a framework, the large mammal predator is working out a relationship between movement and food, sensitive to possibilities in cold trails and distant sounds—and yesterday's unforgotten lessons. The herbivore prey is of a different mind. Its mood of wariness rather than searching and its attitude of general expectancy instead of anticipating are silk-thin veils of tranquility over an explosive endocrine system.
17. The author is primarily concerned with
(A) disproving the view that herbivores are less intelligent than carnivores
(B) describing a relationship between animals' intelligence and their ecological roles
(C) establishing a direct link between early large mammals and their modern counterparts
(D) analyzing the ecological basis for the dominance of some carnivores over other carnivores
(E) demonstrating the importance of hormones in mental activity
18. The author refers to a hungry lizard (line 55) primarily in order to
(A) demonstrate the similarity between the hunting methods of mammals and those of nonmammals
(B) broaden the application of his argument by including an insectivore as an example
(C) make a distinction between higher and lower levels of consciousness
(D) provide an additional illustration of the brutality characteristic of predators
(E) offer an objection to suggestions that all animals lack consciousness

GO ON TO THE NEXT PAGE.

19. It can be inferred from the passage that in animals less intelligent than the mammals discussed in the passage
- (A) past experience is less helpful in ensuring survival
 - (B) attention is more highly focused
 - (C) muscular coordination is less highly developed
 - (D) there is less need for competition among species
 - (E) environment is more important in establishing the proper ratio of prey to predator
20. The sensitivity described in lines 56-61 is most clearly an example of
- (A) "free-floating awareness" (lines 16-17)
 - (B) "flooding of impulses in the brain stem" (lines 29-30)
 - (C) "the holding of consistent images" (lines 31-32)
 - (D) "integration of details with perceived ends and purposes" (lines 37-38)
 - (E) "silk-thin veils of tranquility" (line 64)
21. The author's attitude toward the mammals discussed in the passage is best described as
- (A) superior and condescending
 - (B) lighthearted and jocular
 - (C) apologetic and conciliatory
 - (D) wistful and tender
 - (E) respectful and admiring
22. The author provides information that would answer which of the following questions?
- I. Why is an aroused herbivore usually fearful?
 - II. What are some of the degrees of attention in large mammals?
 - III. What occurs when the stimulus that causes arousal of a mammal is removed?
- (A) I only (B) III only (C) I and II only
 - (D) II and III only (E) I, II, and III
23. According to the passage, improvement in brain function among early large mammals resulted primarily from which of the following?
- (A) Interplay of predator and prey
 - (B) Persistence of free-floating awareness in animals of the grasslands
 - (C) Gradual dominance of warm-blooded mammals over cold-blooded reptiles
 - (D) Interaction of early large mammals with less intelligent species
 - (E) Improvement of the capacity for memory among herbivores and carnivores
24. According to the passage, as the process of arousal in an organism continues, all of the following may occur EXCEPT
- (A) the production of adrenaline
 - (B) the production of norepinephrine
 - (C) a heightening of sensitivity to stimuli
 - (D) an increase in selectivity with respect to stimuli
 - (E) an expansion of the range of states mediated by the brain stem

GO ON TO THE NEXT PAGE.

Tocqueville, apparently, was wrong. Jacksonian America was not a fluid, egalitarian society where individual wealth and poverty were ephemeral conditions. At least so argues E. Pessen in his iconoclastic study of the very rich in the United States between 1825 and 1850.

Pessen does present a quantity of examples, together with some refreshingly intelligible statistics, to establish the existence of an inordinately wealthy class. Though active in commerce or the professions, most of the wealthy were not self-made, but had inherited family fortunes. In no sense mercurial, these great fortunes survived the financial panics that destroyed lesser ones. Indeed, in several cities the wealthiest one percent constantly increased its share until by 1850 it owned half of the community's wealth. Although these observations are true, Pessen overestimates their importance by concluding from them that the undoubted progress toward inequality in the late eighteenth century continued in the Jacksonian period and that the United States was a class-ridden, plutocratic society even before industrialization.

25. According to the passage, Pessen indicates that all of the following were true of the very wealthy in the United States between 1825 and 1850 EXCEPT:

- (A) They formed a distinct upper class.
- (B) Many of them were able to increase their holdings.
- (C) Some of them worked as professionals or in business.
- (D) Most of them accumulated their own fortunes.
- (E) Many of them retained their wealth in spite of financial upheavals.

26. The author's attitude toward Pessen's presentation of statistics can be best described as
- (A) disapproving
 - (B) shocked
 - (C) suspicious
 - (D) amused
 - (E) laudatory
27. Which of the following best states the author's main point?
- (A) Pessen's study has overturned the previously established view of the social and economic structure of early nineteenth-century America.
 - (B) Tocqueville's analysis of the United States in the Jacksonian era remains the definitive account of this period.
 - (C) Pessen's study is valuable primarily because it shows the continuity of the social system in the United States throughout the nineteenth century.
 - (D) The social patterns and political power of the extremely wealthy in the United States between 1825 and 1850 are well documented.
 - (E) Pessen challenges a view of the social and economic system in the United States from 1825 to 1850, but he draws conclusions that are incorrect.

GO ON TO THE NEXT PAGE.

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. BOISTEROUS: (A) grateful (B) angry
(C) clever (D) frightened (E) quiet
29. EMIT: (A) absorb (B) demand
(C) mistake (D) prevent (E) require
30. METAMORPHOSE: (A) move ahead
(B) remain unaltered (C) descend slowly
(D) examine in haste (E) prepare in advance
31. ALLY: (A) mediator (B) felon
(C) adversary (D) inventor
(E) conspirator
32. OFFHAND:
(A) accurate
(B) universal
(C) appropriate
(D) premeditated
(E) disputatious

33. BROACH: (A) keep track of
(B) lay claim to (C) close off (D) soothe
(E) simplify
34. GIST: (A) artificial manner
(B) trivial point (C) informal procedure
(D) eccentric method (E) singular event
35. DIVESTITURE: (A) acquisition
(B) promotion (C) subsidization
(D) consultation (E) monopolization
36. EXTANT: (A) extensive (B) extraneous
(C) extricable (D) extinct (E) extra
37. TRACTABILITY: (A) infertility
(B) implausibility (C) incorrigibility
(D) impenetrability (E) indefatigability
38. NOISOME:
(A) attractively fragrant
(B) subtly flattering
(C) consistently patient
(D) softly glowing
(E) gradually diminishing

SECTION 4

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. The ____ of mass literacy coincided with the first industrial revolution; in turn, the new expansion in literacy, as well as cheaper printing, helped to nurture the ____ of popular literature.
(A) building..mistrust
(B) reappearance..display
(C) receipt..source
(D) selection..influence
(E) emergence..rise
2. Although ancient tools were ____ preserved, enough have survived to allow us to demonstrate an occasionally interrupted but generally ____ progress through prehistory.
(A) partially..noticeable
(B) superficially..necessary
(C) unwittingly..documented
(D) rarely..continual
(E) needlessly..incessant
3. In parts of the Arctic, the land grades into the landfast ice so ____ that you can walk off the coast and not know you are over the hidden sea.
(A) permanently (B) imperceptibly
(C) irregularly (D) precariously
(E) slightly
4. Kagan maintains that an infant's reactions to its first stressful experiences are part of a natural process of development, not harbingers of childhood unhappiness or ____ signs of adolescent anxiety.
(A) prophetic (B) normal
(C) monotonous (D) virtual
(E) typical
5. An investigation that is ____ can occasionally yield new facts, even notable ones, but typically the appearance of such facts is the result of a search in a definite direction.
(A) timely (B) unguided (C) consistent
(D) uncomplicated (E) subjective
6. Like many eighteenth-century scholars who lived by cultivating those in power, Winckelmann neglected to neutralize, by some ____ gesture of comradeship, the resentment his peers were bound to feel because of his ____ the high and mighty.
(A) quixotic..intrigue with
(B) enigmatic..familiarity with
(C) propitiatory..involvement with
(D) salutary..questioning of
(E) unfeigned..sympathy for
7. In a ____ society that worships efficiency, it is difficult for a sensitive and idealistic person to make the kinds of ____ decisions that alone spell success as it is defined by such a society.
(A) bureaucratic..edifying
(B) pragmatic..hardheaded
(C) rational..well-intentioned
(D) competitive..evenhanded
(E) modern..dysfunctional

GO ON TO THE NEXT PAGE.

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. TABLECLOTH:TABLE :: (A) tent:ground
(B) shirt:hanger (C) window:sill
(D) sheet:mattress (E) cloud:earth
9. CANVAS:PAINTER :: (A) leather:shoe
(B) brush:palette (C) chisel:wood
(D) marble:sculptor (E) hammer:carpenter
10. MANSION:RESIDENCE ::
(A) limousine:automobile
(B) chandelier:candle
(C) tuxedo:wardrobe
(D) diamond:rhinestone
(E) yacht:harbor
11. DOOR:ROOM :: (A) rudder:anchor
(B) boat:ship (C) patio:terrace
(D) hatch:hold (E) basement:attic
12. CHOREOGRAPHY:DANCE ::
(A) ceremony:sermon
(B) agenda:advertisement
(C) poetry:recitation
(D) instrumentation:conductor
(E) plot:story
13. EVAPORATE:VAPOR ::
(A) petrify:stone (B) centrifuge:liquid
(C) saturate:fluid (D) corrode:acid
(E) incinerate:fire
14. ASSUAGE:SORROW ::
(A) retaliate:antipathy
(B) dampen:ardor
(C) entrust:reliability
(D) counsel:reluctance
(E) withhold:appreciation
15. NUMB:INSENSIBLE :: (A) reflect:luminous
(B) burnish:lustrous (C) heckle:raucous
(D) repulse:odious (E) braid:sinuous
16. AUDACIOUS:TREPIDATION ::
(A) refractory:intransigence
(B) laconic:volubility
(C) sordid:aspiration
(D) cursory:accumulation
(E) derisive:subordination

GO ON TO THE NEXT PAGE.

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.

- "I want to criticize the social system, and to show it at work, at its most intense." Virginia Woolf's provocative statement about her intentions in writing *Mrs. Dalloway* has regularly been ignored by the critics, since it highlights an aspect of her literary interests very different from the traditional picture of the "poetic" novelist concerned with examining states of reverie and vision and with following the intricate pathways of individual consciousness. But Virginia Woolf was a realistic as well as a poetic novelist, a satirist and social critic as well as a visionary: literary critics' cavalier dismissal of Woolf's social vision will not withstand scrutiny.
- (15) In her novels, Woolf is deeply engaged by the questions of how individuals are shaped (or deformed) by their social environments, how historical forces impinge on people's lives, how class, wealth, and gender help to determine people's fates. Most of her novels are rooted in a realistically rendered social setting and in a precise historical time.
- Woolf's focus on society has not been generally recognized because of her intense antipathy to propaganda in art. The pictures of reformers in her novels are usually satiric or sharply critical. Even when Woolf is fundamentally sympathetic to their causes, she portrays people anxious to reform their society and possessed of a message or program as arrogant or dishonest, unaware of how their political ideas serve their own psychological needs. (*Her Writer's Diary* notes: "the only honest people are the artists," whereas "these social reformers and philanthropists . . . harbor . . . discreditable desires under the disguise of loving their kind. . . .") Woolf detested what she called "preaching" in fiction, too, and criticized novelist D. H. Lawrence (among others) for working by this method.
- Woolf's own social criticism is expressed in the language of observation rather than in direct commentary, since for her, fiction is a contemplative, not an active art. She describes phenomena and provides materials for a judgment about society and social issues; it is the reader's work to put the observations together and understand the coherent point of view behind them. As a moralist, Woolf works by indirection, subtly undermining officially accepted mores, mocking, suggesting, calling into question, rather than asserting, advocating, bearing witness: hers is the satirist's art.
- Woolf's literary models were acute social observers like Chekhov and Chaucer. As she put it

- in *The Common Reader*, "It is safe to say that not a single law has been framed or one stone set upon another because of anything Chaucer said or wrote; and yet, as we read him, we are absorbing morality at every pore." Like Chaucer, Woolf chose to understand as well as to judge, to know her society root and branch—a decision crucial in order to produce art rather than polemic.
17. Which of the following would be the most appropriate title for the passage?
- (A) Poetry and Satire as Influences on the Novels of Virginia Woolf
(B) Virginia Woolf: Critic and Commentator on the Twentieth-Century Novel
(C) Trends in Contemporary Reform Movements as a Key to Understanding Virginia Woolf's Novels
(D) Society as Allegory for the Individual in the Novels of Virginia Woolf
(E) Virginia Woolf's Novels: Critical Reflections on the Individual and on Society
18. In the first paragraph of the passage, the author's attitude toward the literary critics mentioned can best be described as
- (A) disparaging
(B) ironic
(C) facetious
(D) skeptical but resigned
(E) disappointed but hopeful
19. It can be inferred from the passage that Woolf chose Chaucer as a literary model because she believed that
- (A) Chaucer was the first English author to focus on society as a whole as well as on individual characters
(B) Chaucer was an honest and forthright author, whereas novelists like D. H. Lawrence did not sincerely wish to change society
(C) Chaucer was more concerned with understanding his society than with calling its accepted mores into question
(D) Chaucer's writing was greatly, if subtly, effective in influencing the moral attitudes of his readers
(E) her own novels would be more widely read if, like Chaucer, she did not overtly and vehemently criticize contemporary society

20. It can be inferred from the passage that the most probable reason Woolf realistically described the social setting in the majority of her novels was that she
- (A) was aware that contemporary literary critics considered the novel to be the most realistic of literary genres
 - (B) was interested in the effect of a person's social milieu on his or her character and actions
 - (C) needed to be as attentive to detail as possible in her novels in order to support the arguments she advanced in them
 - (D) wanted to show that a painstaking fidelity in the representation of reality did not in any way hamper the artist
 - (E) wished to prevent critics from charging that her novels were written in an ambiguous and inexact style
21. Which of the following phrases best expresses the sense of the word "contemplative" as it is used in lines 43-44 of the passage?
- (A) Gradually elucidating the rational structures underlying accepted mores
 - (B) Reflecting on issues in society without prejudice or emotional commitment
 - (C) Avoiding the aggressive assertion of the author's perspective to the exclusion of the reader's judgment
 - (D) Conveying a broad view of society as a whole rather than focusing on an isolated individual consciousness
 - (E) Appreciating the world as the artist sees it rather than judging it in moral terms
22. The author implies that a major element of the satirist's art is the satirist's
- (A) consistent adherence to a position of lofty disdain when viewing the foibles of humanity
 - (B) insistence on the helplessness of individuals against the social forces that seek to determine an individual's fate
 - (C) cynical disbelief that visionaries can either enlighten or improve their societies
 - (D) fundamental assumption that some ambiguity must remain in a work of art in order for it to reflect society and social mores accurately
 - (E) refusal to indulge in polemic when presenting social mores to readers for their scrutiny
23. The passage supplies information for answering which of the following questions?
- (A) Have literary critics ignored the social criticism inherent in the works of Chekhov and Chaucer?
 - (B) Does the author believe that Woolf is solely an introspective and visionary novelist?
 - (C) What are the social causes with which Woolf shows herself to be sympathetic in her writings?
 - (D) Was D. H. Lawrence as concerned as Woolf was with creating realistic settings for his novels?
 - (E) Does Woolf attribute more power to social environment or to historical forces as shapers of a person's life?

GO ON TO THE NEXT PAGE.

It is a popular misconception that nuclear fusion power is free of radioactivity; in fact, the deuterium-tritium reaction that nuclear scientists are currently exploring with such zeal produces both alpha particles and neutrons. (The neutrons are used to produce tritium from a lithium blanket surrounding the reactor.) Another common misconception is that nuclear fusion power is a virtually unlimited source of energy because of the enormous quantity of deuterium in the sea. Actually, its limits are set by the amount of available lithium, which is about as plentiful as uranium in the Earth's crust. Research should certainly continue on controlled nuclear fusion, but no energy program should be premised on its existence until it has proven practical. For the immediate future, we must continue to use hydroelectric power, nuclear fission, and fossil fuels to meet our energy needs. The energy sources already in major use are in major use for good reason.

24. The primary purpose of the passage is to
- (A) criticize scientists who believe that the deuterium-tritium fusion reaction can be made feasible as an energy source
 - (B) admonish scientists who have failed to correctly calculate the amount of lithium available for use in nuclear fusion reactors
 - (C) defend the continued short-term use of fossil fuels as a major energy source
 - (D) caution against uncritical embrace of nuclear fusion power as a major energy source
 - (E) correct the misconception that nuclear fusion power is entirely free of radioactivity
25. It can be inferred from the passage that the author believes which of the following about the current state of public awareness concerning nuclear fusion power?
- (A) The public has been deliberately misinformed about the advantages and disadvantages of nuclear fusion power.
 - (B) The public is unaware of the principal advantage of nuclear fusion over nuclear fission as an energy source.
 - (C) The public's awareness of the scientific facts concerning nuclear fusion power is somewhat distorted and incomplete.
 - (D) The public is not interested in increasing its awareness of the advantages and disadvantages of nuclear fusion power.
 - (E) The public is aware of the disadvantages of nuclear fusion power but not of its advantages.
26. The passage provides information that would answer which of the following questions?
- (A) What is likely to be the principal source of deuterium for nuclear fusion power?
 - (B) How much incidental radiation is produced in the deuterium-tritium fusion reaction?
 - (C) Why are scientists exploring the deuterium-tritium fusion reaction with such zeal?
 - (D) Why must the tritium for nuclear fusion be synthesized from lithium?
 - (E) Why does the deuterium-tritium reaction yield both alpha particles and neutrons?
27. Which of the following statements concerning nuclear scientists is most directly suggested in the passage?
- (A) Nuclear scientists are not themselves aware of all of the facts surrounding the deuterium-tritium fusion reaction.
 - (B) Nuclear scientists exploring the deuterium-tritium reaction have overlooked key facts in their eagerness to prove nuclear fusion practical.
 - (C) Nuclear scientists may have overestimated the amount of lithium actually available in the Earth's crust.
 - (D) Nuclear scientists have not been entirely dispassionate in their investigation of the deuterium-tritium reaction.
 - (E) Nuclear scientists have insufficiently investigated the lithium-to-tritium reaction in nuclear fusion.

GO ON TO THE NEXT PAGE.

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. PERSEVERE: (A) put into (B) send out
(C) take away (D) give up
(E) bring forward
29. WATERPROOF: (A) soggy (B) natural
(C) unglazed (D) viscous (E) permeable
30. AMALGAMATE: (A) separate (B) fixate
(C) terminate (D) calibrate (E) correlate
31. PUNGENCY: (A) boredom (B) redundancy
(C) unresponsiveness (D) blandness
(E) insignificance
32. ANARCHY: (A) courtesy (B) hope
(C) order (D) neutrality (E) importance

33. INCURSION: (A) loss of respect
(B) lack of resolve (C) reparation
(D) relapse (E) retreat
34. ABROGATE: (A) uphold (B) defer
(C) discuss secretly (D) admit willingly
(E) read thoroughly
35. HAPLESS: (A) excited (B) elated
(C) fortunate (D) completely self-reliant
(E) assured of success
36. AVER: (A) collect (B) augment
(C) placate (D) deny (E) encourage
37. SEDULOUS: (A) presumptuous
(B) ponderous (C) treacherous
(D) careless (E) useless
38. INSULARITY:
(A) overzealousness
(B) cosmopolitanism
(C) susceptibility
(D) willing hospitality
(E) knowledgeable consideration

FOR GENERAL TEST 18 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 4			Section 3			Section 6			Section 2			Section 5		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	C	87	1	E	88	1	A	87	1	A	91	1	C	81	1	D	85
2	E	86	2	D	80	2	A	87	2	B	94	2	B	93	2	C	79
3	A	66	3	B	79	3	O	82*	3	C	93	3	C	89	3	E	84
4	E	61	4	A	69	4	B	83	4	B	87	4	A	96	4	A	60
5	B	52	5	B	69	5	B	84	5	D	86	5	O	89	5	B	43
6	O	44	6	C	51	6	C	82	6	A	85	6	A	82	6	C	51
7	O	18	7	B	41	7	A	72	7	C	75	7	E	48	7	B	77
8	B	91	8	D	94	8	C	74	8	B	70	8	B	76	8	B	67
9	E	76	9	O	87	9	B	59	9	A	77	9	C	71	9	A	63
10	O	50	10	A	81	10	C	44	10	B	51	10	A	58	10	C	72
11	C	51	11	D	70	11	D	59	11	D	53	11	E	89	11	D	45
12	A	38	12	E	59	12	C	54	12	C	59	12	O	39	12	B	45
13	E	41	13	A	42	13	A	47	13	A	61	13	C	65	13	E	35
14	C	38	14	B	37	14	O	42	14	C	55	14	A	58	14	A	63
15	A	27	15	B	22	15	B	27	15	D	41	15	B	71	15	C	53
16	C	14	16	B	30	16	E	89	16	C	87	16	O	60	16	E	45
17	B	83	17	E	66	17	C	84	17	D	81	17	D	72	17	O	48
18	C	79	18	A	50	18	B	87	18	E	86	18	B	56	18	O	43
19	A	54	19	D	54	19	B	79	19	B	86	19	A	52	19	C	76
20	O	55	20	B	71	20	A	42	20	A	71	20	E	24	20	B	52
21	E	78	21	C	40	21	E	93	21	B	85	21	A	32	21	C	42
22	C	60	22	E	38	22	O	62	22	C	56	22	D	27	22	O	24
23	A	75	23	B	42	23	A	60	23	E	59	23	C	67	23	B	50
24	E	52	24	D	70	24	O	58	24	A	21	24	D	39	24	E	47
25	O	76	25	C	84	25	B	46	25	C	26	25	E	21	25	A	22
26	E	29	26	A	51	26	O	50	26	A	62						
27	E	60	27	O	19	27	C	40	27	D	45						
28	E	86	28	D	86	28	B	39	28	D	32						
29	A	78	29	E	84	29	E	33	29	C	32						
30	B	81	30	A	80	30	A	27	30	E	34						
31	C	77	31	O	71												
32	O	66	32	C	57												
33	C	51	33	E	44												
34	B	55	34	A	39												
35	A	42	35	C	38												
36	O	34	36	O	29												
37	C	26	37	O	28												
38	A	24	38	B	20												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 19

SECTION I

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. Because they had expected the spacecraft Voyager 2 to be able to gather data only about the planets Jupiter and Saturn, scientists were ----- the wealth of information it sent back from Neptune twelve years after leaving Earth.
(A) disappointed in
(B) concerned about
(C) confident in
(D) elated by
(E) anxious for
2. Wearing the latest fashions was exclusively the ----- of the wealthy until the 1850's, when mass production, aggressive entrepreneurs, and the availability of the sewing machine made them ----- the middle class.
(A) aspiration..disagreeable to
(B) vexation..superfluous for
(C) bane..profitable to
(D) prerogative..accessible to
(E) obligation..popular with
3. Linguists have now confirmed what experienced users of ASL—American Sign Language—have always implicitly known: ASL is a grammatically ----- language in that it is capable of expressing every possible syntactic relation.
(A) limited
(B) economical
(C) complete
(D) shifting
(E) abstract
4. He was regarded by his followers as something of -----, not only because of his insistence on strict discipline, but also because of his ----- adherence to formal details.
(A) a martinet..rigid
(B) an authority..sporadic
(C) a tyrant..reluctant
(D) a fraud..conscientious
(E) an acolyte..maniacal
5. The influence of the *Timaeus* among early philosophical thinkers was -----, if only because it was the sole dialogue ----- in Europe for almost 1,000 years.
(A) pervasive..available
(B) inestimable..suppressed
(C) unnoteworthy..abridged
(D) underestimated..studied
(E) circumscribed..translated
6. The Gibsons were little given to ----- in any form; not one of them was afraid of -----, of being and seeming unlike their neighbors.
(A) humility..absurdity
(B) excellence..mediocrity
(C) anger..confrontation
(D) conformism..singularity
(E) ostentation..eccentricity
7. Even after ----- against the ----- of popular sovereignty were included, major figures in the humanistic disciplines remained skeptical about the proposal to extend suffrage to the masses.
(A) recommendations..continuation
(B) safeguards..excesses
(C) arguments..introduction
(D) provisions..advantages
(E) laws..creation

GO ON TO THE NEXT PAGE.

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. FILING : METAL ::

- (A) jamb : door
- (B) sand : concrete
- (C) yeast : bread
- (D) shaving : wood
- (E) ashes : coal

9. HOST : PARASITE ::

- (A) meadow : soil
- (B) egg : bird
- (C) medium : bacterium
- (D) lair : predator
- (E) kernel : seed

10. SOLILOQUY : PLAY ::

- (A) violin : concerto
- (B) overture : musical
- (C) duet : ensemble
- (D) lyric : poem
- (E) aria : opera

11. MEETING : MINUTES ::

- (A) concert : orchestration
- (B) filter : camera
- (C) sale : deed
- (D) earthquake : vibration
- (E) television : signal

12. CONTRACT : IMplode ::

- (A) expand : swell
- (B) descend : plummet
- (C) add : accelerate
- (D) cool : solidify
- (E) stretch : flex

13. APPRISE : INFORMATION ::

- (A) admonish : warning
- (B) defend : doubt
- (C) criticize : justification
- (D) comprehend : benefits
- (E) unite : whole

14. MINUTIAE : DETAILS ::

- (A) data : hypotheses
- (B) research : findings
- (C) approximations : calculations
- (D) queries : answers
- (E) quibbles : objections

15. FRENETIC : MOVEMENT ::

- (A) perceptive : analysis
- (B) effortless : expression
- (C) focused : thought
- (D) spontaneous : behavior
- (E) fanatical : belief

16. VENOM : TOKIN ::

- (A) bile : liver
- (B) vitamin : mineral
- (C) insulin : sugar
- (D) milk : nutrient
- (E) clot : blood

GO ON TO THE NEXT PAGE.

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.

Isadora Duncan's masterly writings on the dance reveal the depth of her determination to create a lyric form of the art which was free of characterization, storytelling, and the theatrical exhibition of skills. She wished to discard the traditional methods and established vocabularies of such dance forms as ballet and to explore the internal sources of human expressiveness. She shunned bodily ornamentation and strove to use only the natural movements of her body, undistorted by acrobatic exaggeration and stimulated only by internal compulsion. In her recitals Duncan danced to the music of Beethoven, Wagner, and Gluck, among others, but, contrary to popular belief, she made no attempt to visualize or to interpret the music; rather, she simply relied on it to provide the inspiration for expressing inner feelings through movement. She did not regard this use of music as ideal, however, believing that she would someday dispense with music entirely. That day never came.

17. The author is primarily concerned with Duncan's
- (A) masterful lyricism as expressed in her writings on the dance
 - (B) concerted efforts to subdue the natural movements of the dance
 - (C) belated recognition that she could not actually fulfill all of her ideals for the dance
 - (D) basic standards for the dance form that she wished to create and perform
 - (E) continuous responsiveness to a popular misconception about the nature of her new art form
18. The author implies that Duncan relied on music in her recitals in order to
- (A) interpret musical works solely by means of natural body movements
 - (B) foster the illusion that music serves as an inspiration for the dance
 - (C) inspire the expression of inner feeling when she danced
 - (D) validate the public belief that music inspires the expression of feeling through movement
 - (E) counter the public belief that she made no attempt to visualize music

19. According to the passage, Duncan intended to develop an art form that would do all of the following EXCEPT
- (A) avoid the use of standard ballet techniques
 - (B) revitalize an earlier established vocabulary
 - (C) draw on internal sources of human expressiveness
 - (D) create intended effects without the use of acrobatic exaggeration
 - (E) derive inspiration solely from inner feelings
20. It can be inferred from the passage that which of the following endeavors is LEAST compatible with Duncan's ideals for the dance?
- (A) Using music to stimulate the inspiration to dance
 - (B) Attempting to free an art form of both characterization and storytelling
 - (C) Minimizing the theatrical exhibition of skills
 - (D) Being inspired to express inner feeling through movement
 - (E) Creating a lyric art form by drawing on inner personal resources

GO ON TO THE NEXT PAGE.

Line
(5)

The recent, apparently successful, prediction by mathematical models of an appearance of El Niño—the warm ocean current that periodically develops along the Pacific coast of South America—has excited researchers. Jacob Bjerknes pointed out over 20 years ago how winds might create either abnormally warm or abnormally cold water in the eastern equatorial Pacific. Nonetheless, until the development of the models no one could explain why conditions should regularly shift from one to the other, as happens in the periodic oscillations between appearances of the warm El Niño and the cold so-called anti-El Niño. The answer, at least if the current model that links the behavior of the ocean to that of the atmosphere is correct, is to be found in the ocean.

(10)

It has long been known that during an El Niño, two conditions exist: (1) unusually warm water extends along the eastern Pacific, principally along the coasts of Ecuador and Peru, and (2) winds blow from the west into the warmer air rising over the warm water in the east. These winds tend to create a feedback mechanism by driving the warmer surface water into a "pile" that blocks the normal upwelling of deeper, cold water in the east and further warms the eastern water, thus strengthening the wind still more. The contribution of the model is to show that the winds of an El Niño, which raise sea level in the east, simultaneously send a signal to the west lowering sea level. According to the model, that signal is generated as a negative Rossby wave, a wave of depressed, or negative, sea level, that moves westward parallel to the equator at 25 to 85 kilometers per day. Taking months to traverse the Pacific, Rossby waves march to the western boundary of the Pacific basin, which is modeled as a smooth wall but in reality consists of quite irregular island chains, such as the Philippines and Indonesia.

(20)

When the waves meet the western boundary, they are reflected, and the model predicts that Rossby waves will be broken into numerous coastal Kelvin waves carrying the same negative sea-level signal. These eventually shoot toward the equator, and then head eastward along the equator propelled by the rotation of the Earth at a speed of about 250 kilometers per day. When enough Kelvin waves of sufficient amplitude arrive from the western Pacific, their negative sea-level signal overcomes the feedback mechanism tending to raise the sea level, and they begin to drive the system into the opposite cold mode. This produces a gradual shift in winds, one that will eventually send positive sea-level Rossby waves westward, waves that will eventually return as cold cycle-ending positive Kelvin waves, beginning another warming cycle.

(25)

(30)

(35)

(40)

(45)

(50)

21. The primary function of the passage as a whole is to

- (A) introduce a new explanation of a physical phenomenon
- (B) explain the difference between two related physical phenomena
- (C) illustrate the limitations of applying mathematics to complicated physical phenomena
- (D) indicate the direction that research into a particular physical phenomenon should take
- (E) clarify the differences between an old explanation of a physical phenomenon and a new model of it

22. Which of the following best describes the organization of the first paragraph?

- (A) A theory is presented and criticized.
- (B) A model is described and evaluated.
- (C) A result is reported and its importance explained.
- (D) A phenomenon is noted and its significance debated.
- (E) A hypothesis is introduced and contrary evidence presented.

23. According to the passage, which of the following features is characteristic of an El Niño?

- (A) Cold coastal water near Peru
- (B) Winds blowing from the west
- (C) Random occurrence
- (D) Worldwide effects
- (E) Short duration

GO ON TO THE NEXT PAGE.

24. According to the model presented in the passage, which of the following normally signals the disappearance of an El Niño?
- (A) The arrival in the eastern Pacific of negative sea-level Kelvin waves
 - (B) A shift in the direction of the winds produced by the start of an anti-El Niño elsewhere in the Pacific
 - (C) The reflection of Kelvin waves after they reach the eastern boundary of the Pacific, along Ecuador and Peru
 - (D) An increase in the speed at which negative Rossby waves cross the Pacific
 - (E) The creation of a reservoir of colder, deep ocean water trapped under the pile of warmer, surface ocean water
25. It can be inferred from the passage that which of the following would result fairly immediately from the cessation of the winds of an El Niño?
- I. Negative Rossby waves would cease to be generated in the eastern Pacific.
 - II. The sea level in the eastern Pacific would fall.
 - III. The surface water in the eastern Pacific would again be cooled by being mixed with deep water.
- (A) I only
 - (B) II only
 - (C) I and II only
 - (D) I and III only
 - (E) I, II, and III
26. Which of the following, if true, would most seriously undermine the validity of the model of El Niño that is presented in the passage?
- (A) During some years El Niño extends significantly farther along the coasts of Ecuador and Peru than during other years.
 - (B) During periods of unusually cool temperatures along the eastern Pacific, an El Niño is much colder than normal.
 - (C) The normal upwelling of cold water in the eastern Pacific depends much more on the local characteristics of the ocean than on atmospheric conditions.
 - (D) The variations in the time it takes Rossby waves to cross the Pacific depend on the power of the winds that the waves encounter.
 - (E) The western boundary of the Pacific basin is so irregular that it impedes most coastal Kelvin waves from heading eastward.
27. The passage best supports the conclusion that during an anti-El Niño the fastest-moving signal waves are
- (A) negative Rossby waves moving east along the equator
 - (B) positive Rossby waves moving west along the equator
 - (C) negative Kelvin waves moving west along the equator
 - (D) positive Kelvin waves moving west along the equator
 - (E) positive Kelvin waves moving east along the equator

GO ON TO THE NEXT PAGE.

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. REPULSION: (A) combination (B) elongation
(C) attraction (D) oscillation (E) illumination
29. ANALOGOUS: (A) resolving inconsistency
(B) lacking similarity (C) repetitive
(D) unremarkable (E) prudent
30. CESSATION: (A) involvement (B) union
(C) commencement (D) invigoration
(E) protection
31. SPLENDOR: (A) earnestness (B) squalor
(C) depravity (D) greed (E) innovation

32. DERIDE: (A) emulate (B) reward
(C) condone (D) show respect for
(E) extend favor to
33. SPARSE: (A) mild (B) bent (C) vile
(D) keen (E) rife
34. TIRADE: (A) lecture (B) digression
(C) unplanned debate (D) modest request
(E) dispassionate speech
35. DIFFIDENT: (A) wise (B) bold (C) cruel
(D) relaxed (E) sloppy
36. SENTIENT: (A) abnormal (B) irregular
(C) unconscious (D) irrelevant (E) elemental
37. ATTENUATE: (A) lighten (B) loosen
(C) worsen (D) shorten (E) strengthen
38. SURFEIT: (A) famish (B) assuage
(C) restrain (D) regulate (E) maintain

SECTION 4
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 recent survey shows that, while ninety-four percent of companies conducting management-training programs open them to women, women are _____ only seventy-four percent of those programs.
(A) protesting against
(B) participating in
(C) displeased by
(D) allowed in
(E) refused by
2. Thomas Paine, whose political writing was often flamboyant, was in private life a surprisingly _____ man: he lived in rented rooms, ate little, and wore drab clothes.
(A) simple
(B) controversial
(C) sordid
(D) comfortable
(E) discourteous
3. Their _____ of loyalties is first to oneself, next to kin, then to fellow tribe members, and finally to compatriots.
(A) merging
(B) hierarchy
(C) definition
(D) judgment
(E) cognizance
4. The belief that science destroys the arts appears to be supported by historical evidence that the arts have _____ only when the sciences have been _____.
(A) declined..attacked
(B) flourished..neglected
(C) matured..unconcerned
(D) succeeded..developed
(E) floundered..constrained
5. The action and characters in a melodrama can be so immediately _____ that all observers can hiss the villain with an air of smug but enjoyable _____.
(A) spurned..boredom
(B) forgotten..condescension
(C) classified..self-righteousness
(D) plausible..guilt
(E) gripping..skepticism
6. In the design of medical experiments, the need for _____ assignment of treatments to patients must be _____ the difficulty of persuading patients to participate in an experiment in which their treatment is decided by chance.
(A) independent..amended by
(B) competent..emphasized by
(C) mechanical..controlled by
(D) swift..associated with
(E) random..reconciled with
7. Though dealers insist that professional art dealers can make money in the art market, even an _____ knowledge is not enough: the art world is so fickle that stock-market prices are _____ by comparison.
(A) amateur's..sensible
(B) expert's..erratic
(C) investor's..booming
(D) insider's..predictable
(E) artist's..irrational

GO ON TO THE NEXT PAGE.

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. EXERCISE : STRONG ::

- (A) perform : shy
- (B) watch : alert
- (C) decide : astute
- (D) drink : thirsty
- (E) read : knowledgeable

9. COWARD : BRAVE ::

- (A) hero : cynical
- (B) martyr : impatient
- (C) philanthropist : selfish
- (D) agnostic : intuitive
- (E) traitor : careful

10. CREDITS : MOVIE ::

- (A) byline : article
- (B) copyright : song
- (C) rehearsal : dance
- (D) dedication : book
- (E) title : work

11. COMPENDIUM : SUMMARY ::

- (A) anthology : collection
- (B) encyclopedia : knowledge
- (C) dissertation : collaboration
- (D) brochure : solicitation
- (E) précis : paragraph

12. COHABIT : RESIDE ::

- (A) conspire : plot
- (B) coincide : contradict
- (C) secrete : conceal
- (D) infiltrate : influence
- (E) frame : incriminate

13. CACOPHONY : SOUND ::

- (A) crescendo : music
- (B) friction : heat
- (C) ripple : liquid
- (D) glare : light
- (E) meter : measurement

14. STRATAGEM : DECEIVE ::

- (A) epithet : correspond
- (B) oration : publish
- (C) conservation : expend
- (D) concession : placate
- (E) sentence : prosecute

15. SPECIOUS : GENUINENESS ::

- (A) illusory : reality
- (B) impulsive : purposefulness
- (C) precipitate : speed
- (D) cunning : duplicity
- (E) imaginary : mind

16. DECLAMATION : GRANDILOQUENCE ::

- (A) exclamation : importance
- (B) proclamation : consent
- (C) diatribe : abuse
- (D) question : insistence
- (E) provocation : betrayal

GO ON TO THE NEXT PAGE.

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.

Historians have only recently begun to note the increase in demand for luxury goods and services that took place in eighteenth-century England. McKendrick has explored the Wedgwood firm's remarkable success in marketing luxury pottery; Plumb has written about the proliferation of provincial theaters, musical festivals, and children's toys and books. While the fact of this consumer revolution is hardly in doubt, three key questions remain: Who were the consumers? What were their motives? And what were the effects of the new demand for luxuries?

An answer to the first of these has been difficult to obtain. Although it has been possible to infer from the goods and services actually produced what manufacturers and servicing trades thought their customers wanted, only a study of relevant personal documents written by actual consumers will provide a precise picture of who wanted what. We still need to know how large this consumer market was and how far down the social scale the consumer demand for luxury goods penetrated. With regard to this last question, we might note in passing that Thompson, while rightly restoring laboring people to the stage of eighteenth-century English history, has probably exaggerated the opposition of these people to the inroads of capitalist consumerism in general; for example, laboring people in eighteenth-century England readily shifted from home-brewed beer to standardized beer produced by huge, heavily capitalized urban breweries.

To answer the question of why consumers became so eager to buy, some historians have pointed to the ability of manufacturers to advertise in a relatively uncensored press. This, however, hardly seems a sufficient answer. McKendrick favors a Veblen model of conspicuous consumption stimulated by competition for status. The "middling sort" bought goods and services because they wanted to follow fashions set by the rich. Again, we may wonder whether this explanation is sufficient. Do not people enjoy buying things as a form of self-gratification? If so, consumerism could be seen as a product of the rise of new concepts of individualism and materialism, but not necessarily of the frenzy for conspicuous competition.

Finally, what were the consequences of this consumer demand for luxuries? McKendrick claims that it goes a long way toward explaining the coming of the Industrial Revolution. But does it? What, for example, does the production of high-quality pottery and toys have to do with the development of iron manufacture or textile mills? It is perfectly possible to have the psychology and

- (5) (50) reality of a consumer society without a heavy industrial sector.

That future exploration of these key questions is undoubtedly necessary should not, however, diminish the force of the conclusion of recent studies: the insatiable demand in eighteenth-century England for frivolous as well as useful goods and services foreshadows our own world.

- (10) (15) (20) (25) (30) (35) (40) (45) 17. In the first paragraph, the author mentions McKendrick and Plumb most probably in order to

- (A) contrast their views on the subject of luxury consumerism in eighteenth-century England
- (B) indicate the inadequacy of historiographical approaches to eighteenth-century English history
- (C) give examples of historians who have helped to establish the fact of growing consumerism in eighteenth-century England
- (D) support the contention that key questions about eighteenth-century consumerism remain to be answered
- (E) compare one historian's interest in luxury goods such as pottery to another historian's interest in luxury services such as musical festivals

18. Which of the following items, if preserved from eighteenth-century England, would provide an example of the kind of documents mentioned in lines 16-17?

- (A) A written agreement between a supplier of raw materials and a supplier of luxury goods
- (B) A diary that mentions luxury goods and services purchased by its author
- (C) A theater ticket stamped with the date and name of a particular play
- (D) A payroll record from a company that produced luxury goods such as pottery
- (E) A newspaper advertisement describing luxury goods and services available at a seaside resort

GO ON TO THE NEXT PAGE.

19. According to the passage, Thompson attributes to laboring people in eighteenth-century England which of the following attitudes toward capitalist consumerism?
- (A) Enthusiasm
(B) Curiosity
(C) Ambivalence
(D) Stubbornness
(E) Hostility
20. In the third paragraph, the author is primarily concerned with
- (A) contrasting two theses and offering a compromise
(B) questioning two explanations and proposing a possible alternative to them
(C) paraphrasing the work of two historians and questioning their assumptions
(D) examining two theories and endorsing one over the other
(E) raising several questions but implying that they cannot be answered
21. According to the passage, a Veblen model of conspicuous consumption has been used to
- (A) investigate the extent of the demand for luxury goods among social classes in eighteenth-century England
(B) classify the kinds of luxury goods desired by eighteenth-century consumers
(C) explain the motivation of eighteenth-century consumers to buy luxury goods
(D) establish the extent to which the tastes of rich consumers were shaped by the middle classes in eighteenth-century England
(E) compare luxury consumerism in eighteenth-century England with such consumerism in the twentieth century
22. According to the passage, eighteenth-century England and the contemporary world of the passage's readers are
- (A) dissimilar in the extent to which luxury consumerism could be said to be widespread among the social classes
(B) dissimilar in their definitions of luxury goods and services
(C) dissimilar in the extent to which luxury goods could be said to be a stimulant of industrial development
(D) similar in their strong demand for a variety of goods and services
(E) similar in the extent to which a middle class could be identified as imitating the habits of a wealthier class
23. It can be inferred from the passage that the author would most probably agree with which of the following statements about the relationship between the Industrial Revolution and the demand for luxury goods and services in eighteenth-century England?
- (A) The growing demand for luxury goods and services was a major factor in the coming of the Industrial Revolution.
(B) The Industrial Revolution exploited the already existing demand for luxury goods and services.
(C) Although the demand for luxury goods may have helped bring about the Industrial Revolution, the demand for luxury services did not.
(D) There is no reason to believe that the Industrial Revolution was directly driven by a growing demand for luxury goods and services.
(E) The increasing demand for luxury goods and services was a cultural phenomenon that has been conclusively demonstrated to have been separate from the coming of the Industrial Revolution.

GO ON TO THE NEXT PAGE.

Researchers are finding that in many ways an individual bacterium is more analogous to a component cell of a multicellular organism than it is to a free-living, autonomous organism. *Anabaena*, a freshwater bacteria, is a case in point. Among photosynthetic bacteria, *Anabaena* is unusual: it is capable of both photosynthesis and nitrogen fixation. Within a single cell, these two biochemical processes are incompatible: oxygen, produced during photosynthesis, inactivates the nitrogenase required for nitrogen fixation. In *Anabaena* communities, however, these processes can coexist. When fixed nitrogen compounds are abundant, *Anabaena* is strictly photosynthetic and its cells are all alike. When nitrogen levels are low, however, specialized cells called heterocysts are produced which lack chlorophyll (necessary for photosynthesis) but which can fix nitrogen by converting nitrogen gas into a usable form. Submicroscopic channels develop which connect the heterocyst cells with the photosynthetic ones and which are used for transferring cellular products between the two kinds of *Anabaena* cells.

24. According to the passage, which of the following statements is true of bacteria that engage in photosynthesis?

- (A) They eventually become two autonomous cells.
- (B) They cannot normally also engage in nitrogen fixation.
- (C) Oxygen normally inactivates them.
- (D) Cellular products are constantly transferred between such bacteria.
- (E) They normally lack chlorophyll.

25. It can be inferred from the passage that cell differentiation within *Anabaena* is regulated by the

- (A) amount of oxygen *Anabaena* cells produce
- (B) season of the year
- (C) amount of fixed nitrogen compounds available
- (D) number of microscopic channels uniting *Anabaena* cells
- (E) amount of chlorophyll in *Anabaena* cells

26. The passage supports which of the following inferences about heterocysts?

- (A) Heterocysts do not produce oxygen.
- (B) Nitrogen gas inactivates heterocysts.
- (C) Chlorophyll increases the productivity of heterocysts.
- (D) Heterocysts allow nitrogen fixation and photosynthesis to occur in the same cell.
- (E) Heterocysts are more important for *Anabaena*'s functioning than are photosynthetic cells.

27. The author uses the example of *Anabaena* to illustrate the

- (A) uniqueness of bacteria among unicellular organisms
- (B) inadequacy of an existing view of bacteria
- (C) ability of unicellular organisms to engage in photosynthesis
- (D) variability of a freshwater bacteria
- (E) difficulty of investigating even the simplest unicellular organisms

GO ON TO THE NEXT PAGE.

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. DILUTE: (A) fill (B) affirm (C) install
(D) agitate (E) concentrate
29. FERVOR: (A) discontent (B) testimony
(C) apathy (D) outrage (E) impertinence
30. EMACIATE: (A) lengthen (B) insult
(C) soothe (D) fatten (E) masticate
31. BOMBASTIC: (A) understated
(B) unimpressive (C) derivative
(D) enigmatic (E) complex
32. OCCULT: (A) informal (B) innocuous
(C) hypocritical (D) gradually refined
(E) readily fathomable

33. TACIT: (A) determined (B) illicit
(C) discrete (D) necessary (E) explicit
34. DESICCATE: (A) add fertilizer to (B) add water to
(C) cement (D) suspend (E) homogenize
35. CHICANERY: (A) honest opinion
(B) sound investment (C) unfashionable item
(D) aboveboard action (E) intricate plan
36. DISAFFECT: (A) win over (B) fail to proceed
(C) cause to improve (D) include (E) reinstate
37. CASTIGATION: (A) affection
(B) solicitousness (C) sincerity
(D) commitment (E) approbation
38. SINECURE: (A) optimistic forecast
(B) voluntary restriction (C) unwelcome news
(D) arduous employment (E) overdue assistance

FOR GENERAL TEST 19 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P +	Number	Answer	P +
1	D	91	1	B	90
2	D	93	2	A	93
3	C	93	3	B	93
4	A	78	4	B	86
5	A	73	5	C	80
6	D	67	6	E	72
7	B	44	7	D	51
8	D	87	8	E	95
9	C	70	9	C	75
10	E	55	10	A	62
11	C	55	11	A	45
12	B	43	12	A	61
13	A	47	13	D	51
14	D	39	14	D	51
15	E	34	15	A	38
16	D	39	16	C	26
17	D	65	17	C	75
18	C	87	18	B	85
19	B	79	19	E	36
20	A	54	20	B	42
21	A	64	21	C	76
22	C	38	22	D	60
23	B	85	23	D	53
24	A	42	24	B	70
25	E	26	25	C	73
26	E	24	26	A	29
27	D	23	27	B	28
28	C	93	28	E	92
29	B	86	29	C	80
30	C	66	30	D	65
31	B	55	31	A	54
32	D	49	32	E	46
33	E	56	33	E	44
34	B	51	34	B	54
35	E	44	35	D	36
36	C	44	36	A	37
37	E	23	37	D	28
38	A	21	38	E	15

QUANTITATIVE ABILITY					
Section 2			Section 5		
Number	Answer	P +	Number	Answer	P +
1	A	86	1	B	80
2	C	72	2	B	76
3	B	74	3	A	75
4	A	71	4	C	75
5	A	66	5	D	73
6	A	65	6	A	67
7	B	46	7	C	61
8	D	63	8	D	59
9	D	74	9	C	49
10	C	56	10	B	51
11	D	45	11	A	48
12	D	40	12	D	34
13	D	29	13	B	42
14	B	50	14	A	47
15	C	27	15	B	38
16	C	92	16	C	87
17	B	83	17	D	89
18	A	77	18	B	79
19	E	61	19	C	66
20	D	61	20	A	73
21	D	86	21	B	87
22	B	72	22	D	71
23	E	66	23	D	55
24	D	42	24	D	36
25	A	38	25	A	38
26	D	55	26	B	63
27	A	42	27	D	29
28	C	55	28	D	28
29	D	39	29	A	31
30	D	30	30	E	25

ANALYTICAL ABILITY					
Section 3			Section 7		
Number	Answer	P +	Number	Answer	P +
1	C	79	1	C	79
2	B	57	2	C	63
3	D	63	3	E	33
4	E	47	4	A	47
5	D	35	5	E	39
6	D	53	6	B	89
7	A	72	7	D	85
8	B	68	8	B	81
9	C	44	9	D	51
10	E	54	10	A	29
11	C	85	11	A	70
12	E	85	12	C	61
13	D	75	13	D	48
14	A	80	14	B	35
15	A	28	15	E	29
16	B	78	16	B	31
17	C	58	17	B	81
18	E	54	18	C	64
19	A	49	19	C	60
20	C	44	20	D	62
21	E	29	21	D	70
22	A	18	22	B	46
23	B	67	23	E	63
24	A	48	24	C	78
25	E	24	25	D	75

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. Although economists have traditionally considered the district to be solely an agricultural one, the _____ of the inhabitants' occupations makes such a classification obsolete.
 (A) productivity (B) diversity (C) predictability
 (D) profitability (E) stability

2. The author of this book _____ overlooks or minimizes some of the problems and shortcomings in otherwise highly successful foreign industries in order to _____ the points on which they excel and on which we might try to emulate them.
 (A) accidentally..exaggerate
 (B) purposely..emphasize
 (C) occasionally..counterbalance
 (D) intentionally..confuse
 (E) cleverly..compound

3. Crosby's colleagues have never learned, at least not in time to avoid embarrassing themselves, that her occasional _____ air of befuddlement _____ a display of her formidable intelligence.
 (A) genuine..dominates (B) alert..contradicts
 (C) acute..precludes (D) bogus..presages
 (E) painstaking..succeeds

4. To ensure the development and exploitation of a new technology, there must be a constant _____ of several nevertheless distinct activities.
 (A) interplay (B) implementation
 (C) comprehending (D) improvement
 (E) exploration

5. Some customs travel well; often, however, behavior that is considered the epitome of _____ at home is perceived as impossibly rude or, at the least, harmlessly bizarre abroad.
 (A) novelty (B) eccentricity (C) urbanity
 (D) coarseness (E) tolerance

6. The _____ of the early Greek philosophers' attempts to explain the operations of the cosmos led certain later thinkers to inquire into the _____ of human reason.
 (A) difficulty..origin
 (B) meaning..supremacy
 (C) complexity..reality
 (D) equivocations..subtlety
 (E) failures..efficacy
7. Ever prey to vagrant impulses that impelled him to _____ his talents on a host of unworthy projects, his very _____ nonetheless enhanced his reputation, for the sheer energy of his extravagance dazzled observers.
 (A) undermine..enthusiasm
 (B) isolate..selectiveness
 (C) display..affability
 (D) squander..dissipation
 (E) implicate..genius

GO ON TO THE NEXT PAGE.

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. MULTIPLY : DIVIDE ::

- (A) enumerate : count
- (B) speak : communicate
- (C) enter : leave
- (D) drive : ride
- (E) compute : estimate

9. RECLUSE : WITHDRAWN ::

- (A) isolationist : unreserved
- (B) pacifist : aggressive
- (C) miser : liberal
- (D) bigot : biased
- (E) procrastinator : unmanageable

10. CURATOR : ART ::

- (A) functionary : administration
- (B) archivist : documents
- (C) referee : laws
- (D) physician : research
- (E) raconteur : stories

11. ABACUS : CALCULATE ::

- (A) organ : worship
- (B) patent : invent
- (C) calipers : regulate
- (D) manuscript : edit
- (E) sextant : navigate

12. STRAY : GROUP ::

- (A) miscalculate : solution
- (B) improvise : suggestion
- (C) slur : pronunciation
- (D) delete : change
- (E) digress : subject

13. ESCAPE : CAPTURE ::

- (A) warn : danger
- (B) immerse : dampness
- (C) feint : thrust
- (D) dodge : blow
- (E) invest : bankruptcy

14. LEVEE : RIVER ::

- (A) seam : fabric
- (B) corona : sun
- (C) cordon : crowd
- (D) petal : flower
- (E) moat : castle

15. MERCURIAL : MOOD ::

- (A) energetic : delirium
- (B) jovial : conviviality
- (C) fickle : affection
- (D) martial : anarchy
- (E) paranoid : suspicion

16. ENUNCIATE : WORDS ::

- (A) limn : lines
- (B) parse : sentences
- (C) hear : sounds
- (D) run : steps
- (E) stint : savings

GO ON TO THE NEXT PAGE.

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.

Line
(3)

(10)

(15)

A serious critic has to comprehend the particular content, unique structure, and special meaning of a work of art. And here she faces a dilemma. The critic must recognize the artistic element of uniqueness that requires subjective reaction; yet she must not be unduly prejudiced by such reactions. Her likes and dislikes are less important than what the work itself communicates, and her preferences may blind her to certain qualities of the work and thereby prevent an adequate understanding of it. Hence, it is necessary that a critic develop a sensibility informed by familiarity with the history of art and aesthetic theory. On the other hand, it is insufficient to treat the artwork solely historically, in relation to a fixed set of ideas or values. The critic's knowledge and training are, rather, a preparation of the cognitive and emotional abilities needed for an adequate personal response to an artwork's own particular qualities.

17. According to the author, a serious art critic may avoid being prejudiced by her subjective reactions if she
- (A) treats an artwork in relation to a fixed set of ideas and values
 - (B) brings to her observation a knowledge of art history and aesthetic theory
 - (C) allows more time for the observation of each artwork
 - (D) takes into account the preferences of other art critics
 - (E) limits herself to that art with which she has adequate familiarity

18. The author implies that it is insufficient to treat a work of art solely historically because
- (A) doing so would lead the critic into a dilemma
 - (B) doing so can blind the critic to some of the artwork's unique qualities
 - (C) doing so can insulate the critic from personally held beliefs
 - (D) subjective reactions can produce a biased response
 - (E) critics are not sufficiently familiar with art history
19. The passage suggests that the author would be most likely to agree with which of the following statements?
- (A) Art speaks to the passions as well as to the intellect.
 - (B) Most works of art express unconscious wishes or desires.
 - (C) The best art is accessible to the greatest number of people.
 - (D) The art produced in the last few decades is of inferior quality.
 - (E) The meaning of art is a function of the social conditions in which it was produced.
20. The author's argument is developed primarily by the use of
- (A) an attack on sentimentality
 - (B) an example of successful art criticism
 - (C) a critique of artists' training
 - (D) a warning against extremes in art criticism
 - (E) an analogy between art criticism and art production

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Viruses, infectious particles consisting of nucleic acid packaged in a protein coat (the capsid), are difficult to resist. Unable to reproduce outside a living cell, viruses reproduce only by subverting the genetic mechanisms of a host cell. In one kind of viral life cycle, the virus first binds to the cell's surface, then penetrates the cell and sheds its capsid. The exposed viral nucleic acid produces new viruses from the contents of the cell. Finally, the cell releases the viral progeny, and a new cell cycle of infection begins. The human body responds to a viral infection by producing antibodies: complex, highly specific proteins that selectively bind to foreign molecules such as viruses. An antibody can either interfere with a virus' ability to bind to a cell, or can prevent it from releasing its nucleic acid.

Unfortunately, the common cold, produced most often by rhinoviruses, is intractable to antiviral defense. Humans have difficulty resisting colds because rhinoviruses are so diverse, including at least 100 strains. The strains differ most in the molecular structure of the proteins in their capsids. Since disease-fighting antibodies bind to the capsid, an antibody developed to protect against one rhinovirus strain is useless against other strains. Different antibodies must be produced for each strain.

A defense against rhinoviruses might nonetheless succeed by exploiting hidden similarities among the rhinovirus strains. For example, most rhinovirus strains bind to the same kind of molecule (delta-receptors) on a cell's surface when they attack human cells. Colombo, taking advantage of these common receptors, devised a strategy for blocking the attachment of rhinoviruses to their appropriate receptors. Rather than fruitlessly searching for an antibody that would bind to all rhinoviruses, Colombo realized that an antibody binding to the common receptors of a human cell would prevent rhinoviruses from initiating an infection. Because human cells normally do not develop antibodies to components of their own cells, Colombo injected human cells into mice, which did produce an antibody to the common receptor. In isolated human cells, this antibody proved to be extraordinarily effective at thwarting the rhinovirus. Moreover, when the antibody was given to chimpanzees, it inhibited rhinoviral growth, and in humans it lessened both the severity and duration of cold symptoms.

Another possible defense against rhinoviruses was proposed by Rossman, who described rhinoviruses' detailed molecular structure. Rossman showed that protein sequences common to all rhinovirus strains lie at the base of a deep "canyon" scoring each face of the capsid. The narrow opening of this canyon possibly prevents the relatively large antibody molecules from binding to the common sequence, but smaller molecules might reach it. Among these smaller, nonantibody molecules, some might bind to the common sequence, lock the nucleic acid in its coat, and thereby prevent the virus from reproducing.

21. The primary purpose of the passage is to
 - (A) discuss viral mechanisms and possible ways of circumventing certain kinds of those mechanisms
 - (B) challenge recent research on how rhinoviruses bind to receptors on the surfaces of cells
 - (C) suggest future research on rhinoviral growth in chimpanzees
 - (D) defend a controversial research program whose purpose is to discover the molecular structure of rhinovirus capsids
 - (E) evaluate a dispute between advocates of two theories about the rhinovirus life cycle
22. It can be inferred from the passage that the protein sequences of the capsid that vary most among strains of rhinovirus are those
 - (A) at the base of the "canyon"
 - (B) outside of the "canyon"
 - (C) responsible for producing nucleic acid
 - (D) responsible for preventing the formation of delta-receptors
 - (E) preventing the capsid from releasing its nucleic acid
23. It can be inferred from the passage that a cell lacking delta-receptors will be
 - (A) unable to prevent the rhinoviral nucleic acid from shedding its capsid
 - (B) defenseless against most strains of rhinovirus
 - (C) unable to release the viral progeny it develops after infection
 - (D) protected from new infections by antibodies to the rhinovirus
 - (E) resistant to infection by most strains of rhinovirus
24. Which of the following research strategies for developing a defense against the common cold would the author be likely to find most promising?
 - (A) Continuing to look for a general antirhinoviral antibody
 - (B) Searching for common cell-surface receptors in humans and mice
 - (C) Continuing to look for similarities among the various strains of rhinovirus
 - (D) Discovering how the human body produces antibodies in response to a rhinoviral infection
 - (E) Determining the detailed molecular structure of the nucleic acid of a rhinovirus

GO ON TO THE NEXT PAGE.

25. It can be inferred from the passage that the purpose of Colonna's experiments was to determine whether
- (A) chimpanzees and humans can both be infected by rhinoviruses
 - (B) chimpanzees can produce antibodies to human cell-surface receptors
 - (C) a rhinovirus' nucleic acid might be locked in its protein coat
 - (D) binding antibodies to common receptors could produce a possible defense against rhinoviruses
 - (E) rhinoviruses are vulnerable to human antibodies
26. According to the passage, Rossman's research suggests that
- (A) a defense against rhinoviruses might exploit structural similarities among the strains of rhinovirus
 - (B) human cells normally do not develop antibodies to components of their own cells
 - (C) the various strains of rhinovirus differ in their ability to bind to the surface of a host cell
 - (D) rhinovirus versatility can work to the benefit of researchers trying to find a useful antibody
 - (E) Colonna's research findings are probably invalid
27. According to the passage, in order for a given antibody to bind to a given rhinoviral capsid, which of the following must be true?
- (A) The capsid must have a deep "canyon" on each of its faces.
 - (B) The antibody must be specific to the molecular structure of the particular capsid.
 - (C) The capsid must separate from its nucleic acid before binding to an antibody.
 - (D) The antibody must bind to a particular cell-surface receptor before it can bind to a rhinovirus.
 - (E) The antibody must first enter a cell containing the particular rhinovirus.

GO ON TO THE NEXT PAGE

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. DOMINANT: (A) defective (B) multiple
(C) inferred (D) shifting (E) recessive
29. DISPUTE: (A) accept (B) simplify
(C) frustrate (D) silence (E) understand
30. PERJURY:
(A) truthful deposition
(B) vivid recollection
(C) voluntary testimony
(D) inadvertent disclosure
(E) inexplicable fabrication
31. DORMANCY: (A) momentum (B) hysteria
(C) availability (D) activity (E) cultivation

32. PLETHORA: (A) deterioration
(B) embellishment (C) scarcity
(D) vacillation (E) affirmation
33. STOCK: (A) unique (B) unfounded
(C) desirable (D) unhealthy (E) trustworthy
34. BURGEON: (A) retreat (B) evolve
(C) wither (D) sever (E) minimize
35. OCCULT: (A) foresee (B) bare (C) assert
(D) transform (E) presume
36. NASCENT: (A) widely displaced
(B) completely clear (C) totally natural
(D) strongly contrary (E) fully established
37. AMPLIFY: (A) condemn (B) disburse
(C) decipher (D) garble (E) abridge
38. EXTENUATING: (A) opposing (B) severe
(C) intractable (D) aggravating (E) internal

SECTION

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. Given the existence of so many factions in the field, it was unrealistic of Anna Freud to expect any _____ of opinion.

(A) freedom (B) reassessment (C) uniformity
(D) expression (E) formation

2. Although specific concerns may determine the intent of a research project, its results are often _____.

(A) unanticipated (B) beneficial (C) expensive
(D) spectacular (E) specialized

3. To list Reilly's achievements in a fragmentary way is _____, for it distracts our attention from the _____ themes of her work.

(A) unproductive. .disparate
(B) misleading. .integrating
(C) pragmatic. .comprehensive
(D) logical. .important
(E) inevitable. .unsettling

4. People frequently denigrate books about recent catastrophes as morally _____ attempts to profit from misfortune, but in my view our desire for such books, together with the venerable tradition to which they belong, _____ them.

(A) inopportune. .encourages
(B) fortuitous. .fosters
(C) treacherous. .safeguards
(D) despicable. .legitimizes
(E) corrupt. .generates

5. That many of the important laws of science were discovered during experiments designed to _____ other phenomena suggests that experimental results are the _____ of inevitable natural forces rather than of planning.

(A) analyze. .foundations
(B) disprove. .predecessors
(C) alter. .adjuncts
(D) illuminate. .consequence
(E) verify. .essence

6. Although in eighteenth-century England an active cultural life accompanied the beginnings of middle-class consumerism, the _____ of literacy was _____ with the rise of such consumerism in the different areas of the country.

(A) repudiation. .reconciled
(B) renewal. .inconsistent
(C) promotion. .combined
(D) spread. .compatible
(E) degree. .uncorrelated

7. The trainees were given copies of a finished manual to see whether they could themselves begin to _____ the inflexible, though tacit, rules for composing more of such instructional materials.

(A) design (B) revise (C) disrupt
(D) standardize (E) derive

GO ON TO THE NEXT PAGE.

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. BUTTER : MARGARINE ::

- (A) sugar : saccharin
- (B) porcelain : tile
- (C) photograph : painting
- (D) music : tape
- (E) signal : whistle

9. MUTED : COLOR ::

- (A) archaic : diction
- (B) pastoral : composition
- (C) muffled : sound
- (D) haunting : tune
- (E) unconcerned : interest

10. MUFLER : NECK ::

- (A) sandal : foot
- (B) collar : blouse
- (C) earring : ear
- (D) mitten : hand
- (E) suspenders : trousers

11. PLANT : SOIL ::

- (A) germ : bacteria
- (B) organism : medium
- (C) sample : growth
- (D) nutrient : liquid
- (E) tree : root

12. POTTERY : SHARD ::

- (A) symphony : musician
- (B) bread : crumb
- (C) wall : brick
- (D) shoe : heel
- (E) building : architect

13. PURIFICATION : DROSS ::

- (A) distillation : vinegar
- (B) assay : gold
- (C) desalinization : salt
- (D) condensation : vapor
- (E) reaction : catalyst

14. DISGUISE : RECOGNITION ::

- (A) prevarication : statement
- (B) infidelity : marriage
- (C) camouflage : infiltration
- (D) espionage : diplomacy
- (E) padding : damage

15. GUST : WIND ::

- (A) rapids : river
- (B) blizzard : snowstorm
- (C) cloudburst : rainfall
- (D) mist : fog
- (E) surf : sea

16. DISABUSE : ERROR ::

- (A) rehabilitate : addiction
- (B) persevere : dereliction
- (C) belittle : imperfection
- (D) discredit : reputation
- (E) discern : discrimination

GO ON TO THE NEXT PAGE

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.

Line
(5) Diamonds, an occasional component of rare igneous rocks called lamproites and kimberlites, have never been dated satisfactorily. However, some diamonds contain minute inclusions of silicate minerals, commonly olivine, pyroxene, and garnet. These minerals can be dated by radioactive decay techniques because of the very small quantities of radioactive trace elements they, in turn, contain. Usually, it is possible to conclude that the inclusions are older than their diamond hosts, but with little indication of the time interval involved. Sometimes, however, the crystal form of the silicate inclusions is observed to resemble more closely the internal structure of diamond than that of other silicate minerals. It is not known how rare this resemblance is, or whether it is
(10) most often seen in inclusions of silicates such as garnet, whose crystallography is generally somewhat similar to that of diamond; but when present, the resemblance is regarded as compelling evidence that the diamonds and inclusions are truly cogenetic.

17. The author implies that silicate inclusions were most often formed
- (A) with small diamonds inside of them
 - (B) with trace elements derived from their host minerals
 - (C) by the radioactive decay of rare igneous rocks
 - (D) at an earlier period than were their host minerals
 - (E) from the crystallization of rare igneous material

18. According to the passage, the age of silicate minerals included in diamonds can be determined due to a feature of the
- (A) trace elements in the diamond hosts
 - (B) trace elements in the rock surrounding the diamonds
 - (C) trace elements in the silicate minerals
 - (D) silicate minerals' crystal structure
 - (E) host diamonds' crystal structure
19. The author states that which of the following generally has a crystal structure similar to that of diamond?
- (A) Lamproite
 - (B) Kimberlite
 - (C) Olivine
 - (D) Pyroxene
 - (E) Garnet
20. The main purpose of the passage is to
- (A) explain why it has not been possible to determine the age of diamonds
 - (B) explain how it might be possible to date some diamonds
 - (C) compare two alternative approaches to determining the age of diamonds
 - (D) compare a method of dating diamonds with a method used to date certain silicate minerals
 - (E) compare the age of diamonds with that of certain silicate minerals contained within them

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ine
5) Discussion of the assimilation of Puerto Ricans in the United States has focused on two factors: social standing and the loss of national culture. In general, excessive stress is placed on one factor or the other, depending on whether the commentator is North American or Puerto Rican. Many North American social scientists, such as Oscar Handlin, Joseph Fitzpatrick, and Oscar Lewis, consider Puerto Ricans as the most recent in a long line of ethnic entrants to
0) occupy the lowest rung on the social ladder. Such a "sociodemographic" approach tends to regard assimilation as a benign process, taking for granted increased economic advantage and inevitable cultural integration, in a supposedly egalitarian context. However, this
5) approach fails to take into account the colonial nature of the Puerto Rican case, with this group, unlike their European predecessors, coming from a nation politically subordinated to the United States. Even the "radical" critiques of this mainstream research model, such as the
0) critique developed in *Divided Society*, attach the issue of ethnic assimilation too mechanically to factors of economic and social mobility and are thus unable to illuminate the cultural subordination of Puerto Ricans as a colonial minority.

5) In contrast, the "colonialist" approach of island-based writers such as Eduardo Seda-Bonilla, Manuel Maldonado-Denis, and Luis Nieves-Falcón tends to view assimilation as the forced loss of national culture in an unequal contest with imposed foreign values.
0) There is, of course, a strong tradition of cultural accommodation among other Puerto Rican thinkers. The writings of Eugenio Fernández Méndez clearly exemplify this tradition, and many supporters of Puerto Rico's commonwealth status share the same universalizing orientation. But the Puerto Rican intellectuals who have written most about the assimilation process in the United States all advance cultural nationalist views, advocating the preservation of minority cultural distinctions and rejecting what they see as the subjugation of colonial nationalities.

5) This cultural and political emphasis is appropriate, but the colonialist-thinkers misdirect it, overlooking the class relations at work in both Puerto Rican and North American history. They pose the clash of national cultures as an absolute polarity, with each culture understood as static and undifferentiated. Yet both the Puerto Rican and North American traditions have been subject to constant challenge from cultural forces within their own societies, forces that may move toward each other in ways that cannot be written off as mere "assimilation." Consider, for example, the indigenous and Afro-Caribbean traditions in Puerto Rican culture and how they influence and are influenced by other Caribbean cultures and Black cultures in the United States. The elements of coercion and inequality, so central to cultural contact according to the colonialist framework, play no role in this kind of convergence of racially and ethnically different elements of the same social class.

21. The author's main purpose is to
- (A) criticize the emphasis on social standing in discussions of the assimilation of Puerto Ricans in the United States
 - (B) support the thesis that assimilation has not been a benign process for Puerto Ricans
 - (C) defend a view of the assimilation of Puerto Ricans that emphasizes the preservation of national culture
 - (D) indicate deficiencies in two schools of thought on the assimilation of Puerto Ricans in the United States
 - (E) reject the attempt to formulate a general framework for discussion of the assimilation of Puerto Ricans in the United States
22. According to the passage, cultural accommodation is promoted by
- (A) Eduardo Seda-Bonilla
 - (B) Manuel Maldonado-Denis
 - (C) the author of *Divided Society*
 - (D) the majority of social scientists writing on immigration
 - (E) many supporters of Puerto Rico's commonwealth status
23. It can be inferred from the passage that a writer such as Eugenio Fernández Méndez would most likely agree with which of the following statements concerning members of minority ethnic groups?
- (A) It is necessary for the members of such groups to adapt to the culture of the majority.
 - (B) The members of such groups generally encounter a culture that is static and undifferentiated.
 - (C) Social mobility is the most important feature of the experience of members of such groups.
 - (D) Social scientists should emphasize the cultural and political aspects of the experience of members of such groups.
 - (E) The assimilation of members of such groups requires the forced abandonment of their authentic national roots.

GO ON TO THE NEXT PAGE.

24. The author implies that the Puerto Rican writers who have written most about assimilation do NOT do which of the following?
- (A) Regard assimilation as benign.
 - (B) Resist cultural integration.
 - (C) Describe in detail the process of assimilation.
 - (D) Take into account the colonial nature of the Puerto Rican case.
 - (E) Criticize supporters of Puerto Rico's commonwealth status.
25. It can be inferred from the passage that the "colonialist" approach is so called because its practitioners
- (A) support Puerto Rico's commonwealth status
 - (B) have a strong tradition of cultural accommodation
 - (C) emphasize the class relations at work in both Puerto Rican and North American history
 - (D) pose the clash of national cultures as an absolute polarity in which each culture is understood as static and undifferentiated
 - (E) regard the political relation of Puerto Rico to the United States as a significant factor in the experience of Puerto Ricans
26. The author regards the emphasis by island-based writers on the cultural and political dimensions of assimilation as
- (A) ironic
 - (B) dangerous
 - (C) fitting but misdirected
 - (D) illuminating but easily misunderstood
 - (E) peculiar but benign
27. The example discussed in lines 51-54 is intended by the author to illustrate a
- (A) strength of the sociodemographic approach
 - (B) strength of the "colonialist" approach
 - (C) weakness of the sociodemographic approach
 - (D) weakness of the "colonialist" approach
 - (E) weakness of the cultural-accommodationist approach

GO ON TO THE NEXT PAGE.

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. OVERREACH:

- (A) disparage another's work
- (B) aim below one's potential
- (C) seek to buy at a lower price
- (D) say less than one intends
- (E) tend to overstate

29. BULGE: (A) depressed region (B) tilted plane
(C) steep slope (D) rippled surface
(E) short line

30. FACILITATE: (A) evict (B) thwart
(C) define (D) make excuses for
(E) call attention to

31. EULOGY: (A) defamation (B) fluctuation
(C) characterization (D) hallucination
(E) deprivation

32. FRACAS:

- (A) functional compromise
- (B) reasonable judgment
- (C) peaceable discussion
- (D) plausible exception
- (E) theoretical approach

33. HARROW: (A) assuage (B) levy (C) suffice
(D) repel (E) invert

34. BOOR: (A) forthright individual
(B) brave fighter (C) deceitful ally
(D) civil person (E) steadfast friend

35. HACKNEYED: (A) fresh (B) illicit
(C) careful (D) unpopular (E) dissenting

36. SODDEN: (A) barren (B) desiccated
(C) temperate (D) expedient (E) artificial

37. GAINSAY: (A) hesitate (B) intercede
(C) perceive (D) concur (E) praise

38. NICE: (A) indirect (B) indecisive
(C) imperceptible (D) imprecise
(E) imperturbable

FOR GENERAL TEST 20 ONLY
Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 3		Section 6			
Number	Answer	P+	Number	Answer	P+
1	B	89	1	C	85
2	B	88	2	A	84
3	D	51	3	B	80
4	A	48	4	D	59
5	C	49	5	D	55
6	E	44	6	E	48
7	D	30	7	E	34
8	D	76	8	A	92
9	D	83	9	C	86
10	B	77	10	D	77
11	E	67	11	B	58
12	E	61	12	B	57
13	D	54	13	C	43
14	C	34	14	E	35
15	C	35	15	C	33
16	A	14	16	A	33
17	B	88	17	D	63
18	B	74	18	D	70
19	A	79	19	E	90
20	D	54	20	B	48
21	A	81	21	D	59
22	B	26	22	E	64
23	E	52	23	A	30
24	C	42	24	A	38
25	D	76	25	E	26
26	A	50	26	C	63
27	B	44	27	D	44
28	E	92	28	B	86
29	A	90	29	A	91
30	A	86	30	B	75
31	D	83	31	A	85
32	C	75	32	C	74
33	A	43	33	A	42
34	C	39	34	D	45
35	B	34	35	A	38
36	E	29	36	B	30
37	D	26	37	D	25
38	D	7	38	D	20

QUANTITATIVE ABILITY					
Section 2		Section 4			
Number	Answer	P+	Number	Answer	P+
1	C	87	1	B	85
2	B	85	2	A	86
3	A	87	3	B	81
4	D	88	4	D	74
5	D	77	5	A	83
6	B	74	6	D	78
7	C	70	7	B	76
8	A	61	8	A	61
9	D	57	9	B	50
10	A	56	10	C	61
11	C	40	11	D	41
12	A	43	12	C	35
13	D	31	13	C	32
14	B	45	14	C	23
15	D	29	15	A	47
16	C	81	16	B	83
17	B	69	17	B	77
18	E	79	18	C	74
19	A	53	19	C	65
20	E	42	20	B	68
21	B	84	21	B	79
22	C	66	22	C	76
23	C	69	23	D	56
24	E	47	24	A	51
25	C	36	25	E	37
26	D	65	26	A	49
27	B	64	27	D	51
28	D	65	28	D	56
29	D	25	29	D	29
30	A	30	30	D	25

ANALYTICAL ABILITY					
Section 1		Section 5			
Number	Answer	P+	Number	Answer	P+
1	A	81	1	B	79
2	D	62	2	B	77
3	C	53	3	D	75
4	B	94	4	D	59
5	D	82	5	B	66
6	E	63	6	C	79
7	E	80	7	A	89
8	D	40	8	D	77
9	A	74	9	C	82
10	E	57	10	A	43
11	D	40	11	A	70
12	A	59	12	E	44
13	A	54	13	A	71
14	C	29	14	E	55
15	A	56	15	D	57
16	E	16	16	D	36
17	B	48	17	C	36
18	E	35	18	D	36
19	A	48	19	B	58
20	C	44	20	B	65
21	C	48	21	D	27
22	C	36	22	A	24
23	D	48	23	C	42
24	B	53	24	D	48
25	A	28	25	D	51

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

SECTION 3

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. Many artists believe that successful imitation, far from being symptomatic of a lack of -----, is the first step in learning to be creative.
(A) elegance (B) resolution (C) goodness
(D) originality (E) sympathy
2. As serious as she is about the bullfight, she does not allow respect to ----- her sense of whimsy when painting it.
(A) inspire (B) provoke (C) suppress
(D) attack (E) satisfy
3. No one is ----- about Stephens; he inspires either uncritical adulation or profound ----- in those who work for him.
(A) neutral.. antipathy
(B) infuriated.. aversion
(C) worried.. anxiety
(D) enthusiastic.. veneration
(E) apprehensive.. consternation
4. Before about 1960, virtually all accounts of evolution assumed most adaptation to be a product of selection at the level of populations; recent studies of evolution, however, have found no ----- this ----- view of selection.
(A) departures from.. controversial
(B) basis for.. pervasive
(C) bias toward.. unchallenged
(D) precursors of.. innovative
(E) criticisms of.. renowned
5. The new biological psychiatry does not deny the contributing role of psychological factors in mental illnesses, but posits that these factors may act as a catalyst on existing physiological conditions and ----- such illnesses.
(A) disguise (B) impede (C) constrain
(D) precipitate (E) consummate
6. During periods of social and cultural stability, many art academies are so firmly controlled by ----- that all real creative work must be done by the -----.
(A) dogmatists.. disenfranchised
(B) managers.. reactionaries
(C) reformers.. dissatisfied
(D) imposter.. academicians
(E) specialists.. elite
7. The First World War began in a context of jargon and verbal delicacy and continued in a cloud of ----- as ----- as language and literature, skillfully used, could make it.
(A) circumlocution.. literal
(B) cliché.. lucid
(C) euphemism.. impenetrable
(D) particularity.. deliberate
(E) subjectivity.. enthralling

GO ON TO THE NEXT PAGE.

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. THERMOMETER : TEMPERATURE ::

- (A) plane : thickness
- (B) wrench : torque
- (C) camera : exposure
- (D) compass : direction
- (E) grindstone : sharpness

9. FOOLPROOF : FAIL :: (A) translucent : filter
(B) viscous : smear (C) volatile : explode
(D) airtight : leak (E) taut : break

10. SUFOCATE : OXYGEN :: (A) restrict : supplies
(B) rob : money (C) inhibit : drives
(D) imprison : freedom (E) starve : nutrients

11. ORCHESTRA : MUSIC :: (A) vocalist : song
(B) poet : anthology (C) actor : cues
(D) choreographer : ballet (E) troupe : drama

12. BIRD : SNARE :: (A) lion : den (B) fish : seine
(C) lamb : shears (D) scorpion : sting
(E) lobster : claw

13. RESOLUTENESS : WILL :: (A) zeal : conviction
(B) honor : restitution (C) esteem : adoration
(D) anguish : hesitation (E) sorrow : compassion

14. MILLER : GRAIN :: (A) carpenter : awl
(B) forger : furnace (C) tanner : hide
(D) vintner : wine (E) mason : cement

15. DIDACTIC : INSTRUCT :: (A) pedantic : contend (B) comic : amuse
(C) theatrical : applaud (D) imperative : obey
(E) rhetorical : recite

16. GARRULOUS : TALKATIVE :: (A) suspicious : unreliable
(B) cantankerous : obtuse
(C) cloying : sweet
(D) reflective : insightful
(E) prudent : indecisive

GO ON TO THE NEXT PAGE.

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.

Geologists have long known that the Earth's mantle is heterogeneous, but its spatial arrangement remains unresolved—is the mantle essentially layered or irregularly heterogeneous? The best evidence for the layered-mantle thesis is the well-established fact that volcanic rocks found on oceanic islands, islands believed to result from mantle plumes arising from the lower mantle, are composed of material fundamentally different from that of the midocean ridge system, whose source, most geologists contend, is the upper mantle.

Some geologists, however, on the basis of observations concerning mantle xenoliths, argue that the mantle is not layered, but that heterogeneity is created by fluids rich in "incompatible elements" (elements tending toward liquid rather than solid state) percolating upward and transforming portions of the upper mantle irregularly, according to the vagaries of the fluids' pathways. We believe, perhaps unimaginatively, that this debate can be resolved through further study, and that the underexplored midocean ridge system is the key.

17. Which of the following best expresses the main idea of the passage?

- (A) Current theories regarding the structure of the Earth's mantle cannot account for new discoveries regarding the composition of mantle xenoliths.
- (B) There are conflicting hypotheses about the heterogeneity of the Earth's mantle because few mantle elements have been thoroughly studied.
- (C) Further research is needed to resolve the debate among geologists over the composition of the midocean ridge system.
- (D) There is clear-cut disagreement within the geological community over the structure of the Earth's mantle.
- (E) There has recently been a strong and exciting challenge to geologists' long-standing belief in the heterogeneity of the Earth's mantle.

18. According to the passage, it is believed that oceanic islands are formed from

- (A) the same material as mantle xenoliths
- (B) the same material as the midocean ridge system
- (C) volcanic rocks from the upper mantle
- (D) incompatible elements percolating up from the lower mantle
- (E) mantle plumes arising from the lower mantle

19. It can be inferred from the passage that the supporters of the "layered-mantle" theory believe which of the following?

- I. The volcanic rocks on oceanic islands are composed of material derived from the lower part of the mantle.
- II. The materials of which volcanic rocks on oceanic islands and midocean ridges are composed are typical of the layers from which they are thought to originate.
- III. The differences in composition between volcanic rocks on oceanic islands and the midocean ridges are a result of different concentrations of incompatible elements.

- (A) I only
- (B) III only
- (C) I and II only
- (D) II and III only
- (E) I, II, and III

20. The authors suggest that their proposal for determining the nature of the mantle's heterogeneity might be considered by many to be

- (A) pedestrian
- (B) controversial
- (C) unrealistic
- (D) novel
- (E) paradoxical

GO ON TO THE NEXT PAGE.

- Line
(5)
- Many literary detectives have pored over a great puzzle concerning the writer Marcel Proust: what happened in 1909? How did *Contre Saint-Beuve*, an essay attacking the methods of the critic Saint-Beuve, turn into the start of the novel *Remembrance of Things Past*? A recently published letter from Proust to the editor Vallette confirms that Fallois, the editor of the 1954 edition of *Contre Saint-Beuve*, made an essentially correct guess about the relationship of the essay to the novel. Fallois proposed that Proust had tried to begin a novel in 1908, abandoned it for what was to be a long demonstration of Saint-Beuve's blindness to the real nature of great writing, found the essay giving rise to personal memories and fictional developments, and allowed these to take over in a steadily developing novel.
- Draft passages in Proust's 1909 notebooks indicate that the transition from essay to novel began in *Contre Saint-Beuve*, when Proust introduced several examples to show the powerful influence that involuntary memory exerts over the creative imagination. In effect, in trying to demonstrate that the imagination is more profound and less submissive to the intellect than Saint-Beuve assumed, Proust elicited vital memories of his own and, finding subtle connections between them, began to amass the material for *Remembrance*. By August, Proust was writing to Vallette, informing him of his intention to develop the material as a novel. Maurice Bardèche, in *Marcel Proust, romancier*, has shown the importance in the drafts of *Remembrance* of spontaneous and apparently random associations of Proust's subconscious. As incidents and reflections occurred to Proust, he continually inserted new passages altering and expanding his narrative. But he found it difficult to control the drift of his inspiration. The very richness and complexity of the meaningful relationships that kept presenting and rearranging themselves on all levels, from abstract intelligence to profound dreamy feelings, made it difficult for Proust to set them out coherently. The beginning of control came when he saw how to connect the beginning and the end of his novel.
- Intrigued by Proust's claim that he had "begun and finished" *Remembrance* at the same time, Henri Bonnet discovered that parts of *Remembrance*'s last book were actually started in 1909. Already in that year, Proust had drafted descriptions of his novel's characters in their old age that would appear in the final book of *Remembrance*, where the permanence of art is set against the ravages of time. The letter to Vallette, drafts of the essay and novel, and Bonnet's researches establish in broad outline the process by which Proust generated his novel out of the ruins of his essay. But those of us who hoped, with Kolb, that Kolb's newly published complete edition of Proust's correspondence for 1909 would document the process in greater detail are disappointed. For until Proust was confident that he was at last in sight of a viable structure for *Remembrance*, he told few correspondents that he was producing anything more ambitious than *Contre Saint-Beuve*.
- (10)
(15)
(20)
(25)
(30)
(35)
(40)
(45)
(50)
(55)
21. The passage is primarily concerned with
- the role of involuntary memory in Proust's writing
 - evidence concerning the genesis of Proust's novel *Remembrance of Things Past*
 - conflicting scholarly opinions about the value of studying the drafts of *Remembrance of Things Past*
 - Proust's correspondence and what it reveals about *Remembrance of Things Past*
 - the influence of Saint-Beuve's criticism on Proust's novel *Remembrance of Things Past*
22. It can be inferred from the passage that all of the following are literary detectives who have tried, by means of either scholarship or criticism, to help solve the "great puzzle" mentioned in lines 1-2 EXCEPT
- Bardèche
 - Bonnet
 - Fallois
 - Kolb
 - Vallette
23. According to the passage, in drafts of *Contre Saint-Beuve* Proust set out to show that Saint-Beuve made which of the following mistakes as a critic?
- I. Saint-Beuve made no effort to study the development of a novel through its drafts and revisions.
 - II. Saint-Beuve assigned too great a role in the creative process to a writer's conscious intellect.
 - III. Saint-Beuve concentrated too much on plots and not enough on imagery and other elements of style.
- II only
 - III only
 - I and II only
 - I and III only
 - I, II, and III

GO ON TO THE NEXT PAGE.

24. Which of the following best states the author's attitude toward the information that scholars have gathered about Proust's writing in 1909?
- (A) The author is disappointed that no new documents have come to light since Fallois's speculations.
- (B) The author is dissatisfied because there are too many gaps and inconsistencies in the drafts.
- (C) The author is confident that Fallois's 1954 guess has been proved largely correct, but regrets that still more detailed documentation concerning Proust's transition from the essay to the novel has not emerged.
- (D) The author is satisfied that Fallois's judgment was largely correct, but feels that Proust's early work in designing and writing the novel was probably far more deliberate than Fallois's description of the process would suggest.
- (E) The author is satisfied that the facts of Proust's life in 1909 have been thoroughly established, but believes such documents as drafts and correspondence are only of limited value in a critical assessment of Proust's writing.
25. The author of the passage implies that which of the following would be the LEAST useful source of information about Proust's transition from working on *Contre Saint-Beuve* to having a viable structure for *Remembrance of Things Past*?
- (A) Fallois's comments in the 1954 edition of *Contre Saint-Beuve*
- (B) Proust's 1909 notebooks, including the drafts of *Remembrance of Things Past*
- (C) Proust's 1909 correspondence, excluding the letter to Vallette
- (D) Bardèche's *Marcel Proust, romancier*
- (E) Bonnet's researches concerning Proust's drafts of the final book of *Remembrance of Things Past*
26. The passage offers information to answer which of the following questions?
- (A) Precisely when in 1909 did Proust decide to abandon *Contre Saint-Beuve*?
- (B) Precisely when in 1909 did Proust decide to connect the beginning and the end of *Remembrance of Things Past*?
- (C) What was the subject of the novel that Proust attempted in 1908?
- (D) What specific criticisms of Saint-Beuve appear, in fictional form, in *Remembrance of Things Past*?
- (E) What is a theme concerning art that appears in the final book of *Remembrance of Things Past*?
27. Which of the following best describes the relationship between *Contre Saint-Beuve* and *Remembrance of Things Past* as it is explained in the passage?
- (A) Immediately after abandoning *Contre Saint-Beuve*, at Vallette's suggestion, Proust started *Remembrance* as a fictional demonstration that Saint-Beuve was wrong about the imagination.
- (B) Immediately after abandoning *Contre Saint-Beuve*, at Vallette's suggestion, Proust turned his attention to *Remembrance*, starting with incidents that had occurred to him while planning the essay.
- (C) Despondent that he could not find a coherent structure for *Contre Saint-Beuve*, an essay about the role of memory in fiction, Proust began instead to write *Remembrance*, a novel devoted to important early memories.
- (D) While developing his argument about the imagination in *Contre Saint-Beuve*, Proust described and began to link together personal memories that became a foundation for *Remembrance*.
- (E) While developing his argument about memory and imagination in *Contre Saint-Beuve*, Proust created fictional characters to embody the abstract themes in his essay.

GO ON TO THE NEXT PAGE.

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. FREQUENT: (A) contain (B) restore
(C) sever (D) visit rarely (E) defend eagerly
29. COMPOUND: (A) reveal (B) concentrate
(C) activate (D) conserve (E) separate
30. CRASS: (A) demanding (B) florid
(C) refined (D) intrepid (E) fair
31. PLASTICITY: (A) tightness (B) contiguity
(C) stasis (D) rigidity (E) order
32. CONVOKE: (A) forgive (B) eradicate
(C) adjourn (D) omit (E) abridge
33. COMMODIOUS: (A) calm (B) careless
(C) reticent (D) enclosed (E) cramped
34. CORROBORATE: (A) complicate
(B) controvert (C) conflate
(D) condone (E) counterfeit
35. MACULATED: (A) unobserved
(B) unfocused (C) unplanned
(D) unsignified (E) unspotted
36. ESOTERIC: (A) unsophisticated
(B) worthless (C) lasting
(D) generally known (E) well expressed
37. FRUSTRATE: (A) expand (B) enjoy
(C) nullify (D) abet (E) prepare
38. ASPERSIONS: (A) qualms (B) apologies
(C) rewards (D) vexation (E) flattery

SECTION V

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. Because no comprehensive _____ exist regarding personal reading practices, we do not know, for example, the greatest number of books read in an individual lifetime.
 - (A) records
 - (B) instincts
 - (C) remedies
 - (D) proposals
 - (E) commercials

2. In our corporation there is a _____ between male and female _____ because 73 percent of the men and 34 percent of the women polled believe that our company provides equal compensation to men and women.
 - (A) contrast..stereotypes
 - (B) difference..perceptions
 - (C) variation..salaries
 - (D) resemblance..employees
 - (E) similarity..aspirations

3. The wonder of De Quincey is that although opium dominated his life, it never _____ him; indeed, he turned its use to _____ when he published the story of its influence in the *London Magazine*.
 - (A) overcame..altruism
 - (B) intimidated..triumph
 - (C) distressed..pleasure
 - (D) conquered..gain
 - (E) released..necessity

4. The reduction of noise has been _____ in terms of _____ its sources, but the alternative of canceling noise out by adding sound with the opposite wave pattern may be more useful in practice.
 - (A) justified..diffusing
 - (B) accomplished..tracking
 - (C) conceived..concealing
 - (D) explained..isolating
 - (E) approached..eliminating

5. While Parker is very outspoken on issues she cares about, she is not _____; she concedes the _____ of opposing arguments when they expose weaknesses inherent in her own.
 - (A) fickle..validity
 - (B) arrogant..restraint
 - (C) fanatical..strength
 - (D) congenial..incompatibility
 - (E) unyielding..speciousness

6. Hampshire's assertions, far from showing that we can _____ the ancient puzzles about objectivity, reveal the issue to be even more _____ than we had thought.
 - (A) adapt..pressing
 - (B) dismiss..relevant
 - (C) rediscover..unconventional
 - (D) admire..elusive
 - (E) appreciate..interesting

7. Usually the first to spot data that were inconsistent with other findings, in this particular experiment she let a number of _____ results slip by.
 - (A) inaccurate
 - (B) verifiable
 - (C) redundant
 - (D) salient
 - (E) anomalous

GO ON TO THE NEXT PAGE.

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. TORNADO : AIR ::
(A) whirlpool : water
(B) sinkhole : ground
(C) forest : fire
(D) gusher : oil
(E) thunderbolt : lightning
9. SINGER : CHOIR :: (A) flower : bouquet
(B) leaf : forest (C) flute : reed
(D) line : sculpture (E) rhythm : time
10. PIGMENT : COLOR :: (A) sizing : fabric
(B) spice : flavor (C) steel : alloy
(D) fertilizer : soil (E) rock : energy
11. LABYRINTH : TORTUOUS ::
(A) ornament : decorative (B) editorial : refutable
(C) portrait : accurate (D) poster : startling
(E) pageant : retrospective
12. PRATE : SPEAK :: (A) digress : conclude
(B) probe : examine (C) soar : travel
(D) wheedle : coax (E) saunter : walk
13. PERTURB : SERENITY ::
(A) caress : affection
(B) protect : security
(C) harangue : bombast
(D) annoy : consideration
(E) reassure : doubt
14. FURTIVE : STEALTH ::
(A) loquacious : intelligence
(B) immoral : contrition
(C) pontifical : reverence
(D) whimsical : caprice
(E) arduous : endurance
15. TENDER : ACCEPTANCE ::
(A) publish : wisdom
(B) exhibit : inspection
(C) scrutinize : foresight
(D) authorize : approval
(E) declare : observation
16. PLUTOCRACY : WEALTH ::
(A) democracy : freedom
(B) aristocracy : land
(C) gerontocracy : age
(D) technocracy : ability
(E) autocracy : birth

GO ON TO THE NEXT PAGE.

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.

Traditional research has confronted only Mexican and United States interpretations of Mexican-American culture. Now we must also examine the culture as we Mexican Americans have experienced it, passing from a sovereign people to compatriots with newly arriving settlers to, finally, a conquered people—a charter minority on our own land.

When the Spanish first came to Mexico, they intermarried with and absorbed the culture of the indigenous Indians. This policy of colonization through acculturation was continued when Mexico acquired Texas in the early 1800's and brought the indigenous Indians into Mexican life and government. In the 1820's, United States citizens migrated to Texas, attracted by land suitable for cotton. As their numbers became more substantial, their policy of acquiring land by subduing native populations began to dominate. The two ideologies clashed repeatedly, culminating in a military conflict that led to victory for the United States. Thus, suddenly deprived of our parent culture, we had to evolve uniquely Mexican-American modes of thought and action in order to survive.

17. The author's purpose in writing this passage is primarily to
- (A) suggest the motives behind Mexican and United States intervention in Texas
 - (B) document certain early objectives of Mexican-American society
 - (C) provide a historical perspective for a new analysis of Mexican-American culture
 - (D) appeal to both Mexican and United States scholars to give greater consideration to economic interpretations of history
 - (E) bring to light previously overlooked research on Mexican Americans

18. The author most probably uses the phrase "charter minority" (lines 6-7) to reinforce the idea that Mexican Americans
- (A) are a native rather than an immigrant group in the United States
 - (B) played an active political role when Texas first became part of the United States
 - (C) recognized very early in the nineteenth century the need for official confirmation of their rights of citizenship
 - (D) have been misunderstood by scholars trying to interpret their culture
 - (E) identify more closely with their Indian heritage than with their Spanish heritage

19. According to the passage, a major difference between the colonization policy of the United States and that of Mexico in Texas in the 1800's was the
- (A) degree to which policies were based on tradition
 - (B) form of economic interdependency between different cultural groups
 - (C) number of people who came to settle new areas
 - (D) treatment of the native inhabitants
 - (E) relationship between the military and the settlers
20. Which of the following statements most clearly contradicts the information in this passage?
- (A) In the early 1800's, the Spanish committed more resources to settling California than to developing Texas.
 - (B) While Texas was under Mexican control, the population of Texas quadrupled, in spite of the fact that Mexico discouraged immigration from the United States.
 - (C) By the time Mexico acquired Texas, many Indians had already married people of Spanish heritage.
 - (D) Many Mexicans living in Texas returned to Mexico after Texas was annexed by the United States.
 - (E) Most Indians living in Texas resisted Spanish acculturation and were either killed or enslaved.

GO ON TO THE NEXT PAGE.

This passage was adapted from an article published in 1982.

Until about five years ago, the very idea that peptide hormones might be made anywhere in the brain besides the hypothalamus was astounding. Peptide hormones, scientists thought, were made by endocrine glands and the hypothalamus was thought to be the brains' only endocrine gland. What is more, because peptide hormones cannot cross the blood-brain barrier, researchers believed that they never got to any part of the brain other than the hypothalamus, where they were simply produced and then released into the bloodstream.

But these beliefs about peptide hormones were questioned as laboratory after laboratory found that antisera to peptide hormones, when injected into the brain, bind in places other than the hypothalamus, indicating that either the hormones or substances that cross-react with the antisera are present. The immunological method of detecting peptide hormones by means of antisera, however, is imprecise. Cross-reactions are possible and this method cannot determine whether the substances detected by the antisera are the hormones, or merely close relatives. Furthermore, this method cannot be used to determine the location in the body where the detected substances are actually produced.

New techniques of molecular biology, however, provide a way to answer these questions. It is possible to make specific complementary DNA's (cDNA's) that can serve as molecular probes to seek out the messenger RNA's (mRNA's) of the peptide hormones. If brain cells are making the hormones, the cells will contain these mRNA's. If the products the brain cells make resemble the hormones but are not identical to them, then the cDNA's should still bind to these mRNA's, but should not bind as tightly as they would to mRNA's for the true hormones. The cells containing these mRNA's can then be isolated and their mRNA's decoded to determine just what their protein products are and how closely the products resemble the true peptide hormones.

The molecular approach to detecting peptide hormones using cDNA probes should also be much faster than the immunological method because it can take years of tedious purifications to isolate peptide hormones and then develop antisera to them. Roberts, expressing the sentiment of many researchers, states: "I was trained as an endocrinologist. But it became clear to me that the field of endocrinology needed molecular biology input. The process of grinding out protein purifications is just too slow."

If, as the initial tests with cDNA probes suggest, peptide hormones really are made in the brain in areas other than the hypothalamus, a theory must be developed that explains their function in the brain. Some have suggested that the hormones are all growth regulators, but Rosen's work on rat brains indicates that this cannot be true. A number of other researchers propose that they might be used for intercellular communication in the brain.

21. Which of the following titles best summarizes the passage?
- (A) Is Molecular Biology the Key to Understanding Intercellular Communication in the Brain?
 - (B) Molecular Biology: Can Researchers Exploit Its Techniques to Synthesize Peptide Hormones?
 - (C) The Advantages and Disadvantages of the Immunological Approach to Detecting Peptide Hormones
 - (D) Peptide Hormones: How Scientists Are Attempting to Solve Problems of Their Detection and to Understand Their Function
 - (E) Peptide Hormones: The Role Played by Messenger RNA's in Their Detection
22. The passage suggests that a substance detected in the brain by use of antisera to peptide hormones may
- (A) have been stored in the brain for a long period of time
 - (B) play no role in the functioning of the brain
 - (C) have been produced in some part of the body other than the brain
 - (D) have escaped detection by molecular methods
 - (E) play an important role in the functioning of the hypothalamus
23. According to the passage, confirmation of the belief that peptide hormones are made in the brain in areas other than the hypothalamus would force scientists to
- (A) reject the theory that peptide hormones are made by endocrine glands
 - (B) revise their beliefs about the ability of antisera to detect peptide hormones
 - (C) invent techniques that would allow them to locate accurately brain cells that produce peptide hormones
 - (D) search for techniques that would enable them to distinguish peptide hormones from their close relatives
 - (E) develop a theory that explains the role played by peptide hormones in the brain

GO ON TO THE NEXT PAGE.

24. Which of the following is mentioned in the passage as a drawback of the immunological method of detecting peptide hormones?
- (A) It cannot be used to detect the presence of growth regulators in the brain.
 - (B) It cannot distinguish between the peptide hormones and substances that are very similar to them.
 - (C) It uses antiserums that are unable to cross the blood-brain barrier.
 - (D) It involves a purification process that requires extensive training in endocrinology.
 - (E) It involves injecting foreign substances directly into the bloodstream.
25. The passage implies that, in doing research on rat brains, Rosen discovered that
- (A) peptide hormones are used for intercellular communication
 - (B) complementary DNA's do not bind to cells producing peptide hormones
 - (C) products closely resembling peptide hormones are not identical to peptide hormones
 - (D) some peptide hormones do not function as growth regulators
 - (E) antiserums cross-react with substances that are not peptide hormones
26. Which of the following is a way in which the immunological method of detecting peptide hormones differs from the molecular method?
- (A) The immunological method uses substances that react with products of hormone-producing cells, whereas the molecular method uses substances that react with a specific component of the cells themselves.
 - (B) The immunological method has produced results consistent with long-held beliefs about peptide hormones, whereas the molecular method has produced results that upset these beliefs.
 - (C) The immunological method requires a great deal of expertise, whereas the molecular method has been used successfully by nonspecialists.
 - (D) The immunological method can only be used to test for the presence of peptide hormones within the hypothalamus, whereas the molecular method can be used throughout the brain.
 - (E) The immunological method uses probes that can only bind with peptide hormones, whereas the molecular method uses probes that bind with peptide hormones and substances similar to them.
27. The idea that the field of endocrinology can gain from developments in molecular biology is regarded by Roberts with
- (A) incredulity
 - (B) derision
 - (C) indifference
 - (D) pride
 - (E) enthusiasm

GO ON TO THE NEXT PAGE.

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. ORIENT: (A) hasten (B) defile (C) menace
(D) confuse (E) decline

29. UNIMPEACHABLE:
(A) irritable (B) preventable
(C) unused to conflict (D) open to question
(E) available for discussion

30. EXPEND: (A) proceed toward (B) take away
(C) place upon (D) hold to (E) store up

31. SEAMY:
(A) decent and respectable
(B) jagged and irregular
(C) strict and authoritarian
(D) ornate and adorned
(E) subtle and dangerous

32. LUCID: (A) unrecognized (B) limited
(C) murky (D) improbable (E) inconsistent

33. LASSITUDE:
(A) a fear of discovery
(B) a feeling of vigor
(C) a twinge of embarrassment
(D) a want of seriousness
(E) a sense of superiority

34. HALLMARK:
(A) grave defect
(B) valueless object
(C) unfortunate incident
(D) uncharacteristic feature
(E) untimely event

35. DIATRIBE: (A) sermon (B) discourse
(C) eulogy (D) lecture (E) oration

36. SEDULITY:
(A) lack of industriousness
(B) abundance of supporters
(C) contradiction of doctrine
(D) rejection of analysis
(E) depletion of resources

37. APPosite: (A) malevolent (B) implicit
(C) disorganized (D) avoidable (E) irrelevant

FOR GENERAL TEST 21 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 3		Section 6			
Number	Answer	P +	Number	Answer	P +
1	D	93	1	A	98
2	C	78	2	B	74
3	A	65	3	D	66
4	B	72	4	E	59
5	D	65	5	C	59
6	A	53	6	B	64
7	C	41	7	E	31
8	D	92	8	A	84
9	E	88	9	A	89
10	E	78	10	B	76
11	E	46	11	A	51
12	B	57	12	E	42
13	A	54	13	E	35
14	C	40	14	D	28
15	B	38	15	B	21
16	C	21	16	C	25
17	D	43	17	C	79
18	C	82	18	A	76
19	C	47	19	E	69
20	A	39	20	E	48
21	B	62	21	D	68
22	E	50	22	C	64
23	A	39	23	E	43
24	C	45	24	B	70
25	C	39	25	D	70
26	E	16	26	A	41
27	D	49	27	E	58
28	C	92	28	E	87
29	E	85	29	D	61
30	C	75	30	E	67
31	D	71	31	A	60
32	C	37	32	C	62
33	E	34	33	B	50
34	B	42	34	D	45
35	E	26	35	C	36
36	D	33	36	A	29
37	C	39	37	E	25
38	D	29			

QUANTITATIVE ABILITY					
Section 1		Section 4		Section 5	
Number	Answer	P +	Number	Answer	P +
1	D	93	1	A	92
2	A	84	2	C	92
3	B	83	3	B	82
4	D	74	4	D	83
5	B	79	5	C	89
6	D	72	6	C	78
7	C	71	7	A	79
8	A	67	8	B	78
9	C	71	9	C	74
10	A	73	10	B	70
11	A	55	11	A	72
12	C	53	12	B	63
13	B	49	13	D	61
14	A	44	14	B	44
15	C	36	15	B	38
16	C	82	16	C	84
17	E	81	17	A	83
18	C	76	18	D	77
19	B	77	19	D	66
20	A	66	20	B	69
21	D	87	21	C	85
22	E	66	22	C	58
23	C	59	23	E	48
24	E	59	24	E	57
25	C	23	25	A	39
26	A	53	26	B	76
27	C	50	27	B	54
28	E	36	28	E	44
29	B	31	29	E	39
30	D	22	30	E	36

ANALYTICAL ABILITY					
Section 2		Section 4		Section 5	
Number	Answer	P +	Number	Answer	P +
1	A	83	1	A	86
2	E	77	2	D	85
3	B	68	3	C	62
4	B	76	4	C	83
5	C	42	5	B	77
6	D	67	6	B	52
7	C	61	7	B	75
8	D	44	8	C	53
9	A	91	9	C	74
10	C	87	10	B	58
11	C	28	11	B	75
12	C	86	12	C	35
13	C	30	13	C	25
14	D	53	14	B	61
15	D	39	15	C	66
16	C	52	16	D	49
17	B	55	17	B	46
18	C	47	18	C	53
19	B	76	19	B	39
20	B	59	20	B	58
21	A	42	21	E	18
22	C	29	22	E	19
23	C	37	23	A	34
24	D	43	24	C	56
25	C	42	25	A	48

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 22

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. There is perhaps some truth in that waggish old definition of a scholar—a siren that calls attention to a fog without doing anything to — it.

(A) describe
(B) cause
(C) analyze
(D) dispel
(E) thicken

2. Cryogenic-energy storage has the advantage of being suitable in any —, regardless of geography or geology, factors that may — both underground gas storage and pumped hydroelectric storage.

(A) location..limit (B) climate..deter
(C) site..forebode (D) proportion..typify
(E) surface..hamper

3. The newborn human infant is not a passive figure, nor an active one, but what might be called an actively — one, eagerly attentive as it is to sights and sounds.

(A) adaptive (B) selective (C) inquisitive
(D) receptive (E) intuitive

4. Opponents of the expansion of the market economy, although in —, continued to constitute — political force throughout the century.

(A) error..an inconsequential
(B) retreat..a powerful
(C) disarray..a disciplined
(D) jeopardy..an ineffective
(E) command..a viable

5. Nature's energy efficiency often — human technology: despite the intensity of the light fireflies produce, the amount of heat is negligible; only recently have humans developed chemical light-producing systems whose efficiency — the firefly's system.

(A) engenders..manipulates
(B) reflects..simulates
(C) outstrips..rivals
(D) inhibits..matches
(E) determines..reproduces

6. Scholars' sense of the uniqueness of the central concept of "the state" at the time when political science became an academic field quite naturally led to striving for a correspondingly — mode of study.

(A) thorough
(B) distinctive
(C) dependable
(D) scientific
(E) dynamic

7. Just as astrology was for centuries — faith, countering the strength of established churches, so today believing in astrology is an act of — the professional sciences.

(A) an individual..rebellion by
(B) an accepted..antagonism toward
(C) an underground..defiance against
(D) a heretical..support for
(E) an unknown..concern about

GO ON TO THE NEXT PAGE.

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. DEPORT:NATION ::

- (A) expel:school
- (B) boycott:store
- (C) confine:prison
- (D) colonize:frontier
- (E) quarantine:hospital

9. VESSEL:BLOOD :: (A) tank:oil
(B) sewer:plumbing (C) sprinkler:water
(D) compressor:air (E) pipeline:gas

10. ITINERARY:TRIP ::

- (A) lottery:chance
- (B) signal:light
- (C) agenda:meeting
- (D) railroad:transportation
- (E) university:education

11. TACT:OFFENSIVE :: (A) manners:sincere
(B) money:poor (C) speech:illiterate
(D) wine:sober (E) friends:cheerful

12. EPIDERMIS:MAMMAL :: (A) blanket:bed
(B) root:plant (C) topsoil:farm
(D) bark:conifer (E) bread:sandwich

13. ANOMALY:PARADIGMATIC ::

- (A) membrane:impenetrable
- (B) weakness:durable
- (C) blemish:flawless
- (D) fallacy:convincing
- (E) liability:solvent

14. LIONIZE:ADMIRE ::

- (A) authorize:betray
- (B) aggrandize:envy
- (C) exonerate:suspect
- (D) vituperate:despise
- (E) emulate:belittle

15. TERSENESS:SUPERFLUOUS ::

- (A) randomness:observable
- (B) elegance:simple
- (C) arbitrariness:just
- (D) spontaneity:studied
- (E) flexibility:stable

16. SUBMISSION:OBEISANCE ::

- (A) dilemma:frustration
- (B) fear:foreboding
- (C) boredom:listlessness
- (D) modesty:blush
- (E) affection:embrace

GO ON TO THE NEXT PAGE.

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.

Our visual perception depends on the reception of energy reflecting or radiating from that which we wish to perceive. If our eyes could receive and measure infinitely delicate sense-

- (5) data, we could perceive the world with infinite precision. The natural limits of our eyes have, of course, been extended by mechanical instruments; telescopes and microscopes, for example, expand our capabilities greatly. There is, however, an ultimate limit beyond which no instrument can take us; this limit is imposed by our inability to receive sense-data smaller than those conveyed by an individual quantum of energy. Since these quanta are believed to be indivisible packages of energy and so cannot be further refined, we reach a point beyond which further resolution of the world is not possible. It is like a drawing a child might make by sticking indivisible discs-of-color onto-a-canvas.
- (20) We might think that we could avoid this limitation by using quanta with extremely long wavelengths; such quanta would be sufficiently sensitive to convey extremely delicate sense-data. And these quanta would be useful, as long as we only wanted to measure energy, but a completely accurate perception of the world will depend also on the exact measurement of the lengths and positions of what we wish to perceive. For this, quanta of extremely long wavelengths are useless. To measure a length accurately to within a millionth of an inch, we must have a measure graduated in millionths of an inch; a yardstick graduated in inches is useless. Quanta with a wavelength of one inch would be, in a sense, measures that are graduated in inches. Quanta of extremely long wavelength are useless in measuring anything except extremely large dimensions.

- Despite these difficulties, quanta have important theoretical implications for physics. It used to be supposed that, in the observation of nature, the universe could be divided into two distinct parts, a perceiving subject and a perceived object. In physics, subject and object were supposed to be entirely distinct, so that a description of any part of the universe would be independent of the observer. The quantum theory, however, suggests otherwise, for every observation involves the passage of a complete quantum from the object to the subject, and it now appears that this passage constitutes an important coupling between observer and

observed. We can no longer make a sharp division between the two in an effort to observe

- (55) nature objectively. Such an attempt at objectivity would distort the crucial interrelationship of observer and observed as parts of a single whole. But, even for scientists, it is only in the world of atoms that this new development makes any appreciable difference in the explanation of observations.

17. The primary purpose of the passage is to
(A) discuss a problem that hinders precise perception of the world
(B) point out the inadequacies of accepted units of measurement
(C) criticize attempts to distinguish between perceiving subjects and perceived objects
(D) compare-and-contrast-rival-scientific hypotheses about how the world should be measured and observed
(E) suggest the limited function of sensory observation
18. According to the passage, quanta with an extremely long wavelength cannot be used to give complete information about the physical world because they
(A) exist independently of sense-data
(B) are graduated only in inches
(C) have an insignificant amount of energy
(D) cannot, with present-day instruments, be isolated from quanta of shorter wavelength
(E) provide an insufficiently precise means of measuring length and position

GO ON TO THE NEXT PAGE.

19. Which of the following describes a situation most analogous to the situation discussed in lines 9-13?
- (A) A mathematician can only solve problems the solution of which can be deduced from known axioms.
- (B) An animal can respond to no command that is more complicated syntactically than any it has previously received.
- (C) A viewer who has not learned, at least intuitively, the conventions of painting, cannot understand perspective in a drawing.
- (D) A sensitized film will record no detail on a scale that is smaller than the grain of the film.
- (E) A shadow cast on a screen by an opaque object will have a sharp edge only if the light source is small or very distant.
20. The author uses the analogy of the child's drawing (lines 17-19) primarily in order to
- (A) illustrate the ultimate limitation in the precision of sense-data conveyed by quanta
- (B) show the sense of helplessness scientists feel in the face of significant observational problems
- (C) anticipate the objections of those scientists who believe that no instrumental aid to observation is entirely reliable
- (D) exemplify the similarities between packages of energy and varieties of color
- (E) disparage those scientists who believe that measurement by means of quanta offers an accurate picture of the world
21. The author implies that making a sharp division between subject and object in physics is
- (A) possible in a measurement of an object's length and position, but not in a measurement of its energy
- (B) still theoretically possible in the small-scale world of atoms and electrons
- (C) possible in the case of observations involving the passage of a complete quantum
- (D) no longer an entirely accurate way to describe observation of the universe
- (E) a goal at which scientists still aim
22. The author's use of the phrase "in a sense" (line 34) implies which of the following?
- (A) Quanta of extremely long wavelength are essentially graduated in inches.
- (B) Quanta of one-inch wavelength are not precisely analogous to yardsticks graduated in inches.
- (C) Quanta of extremely long wavelength, in at least one respect, resemble quanta of shorter wavelength.
- (D) Quanta of one-inch wavelength and quanta of extremely long wavelength do not differ only in their wavelengths.
- (E) Quanta of one-inch wavelength must be measured by different standards than quanta of extremely long wavelength.
23. According to the passage, the quantum theory can be distinguished from previous theories of physics by its
- (A) insistence on scrupulously precise mathematical formulations
- (B) understanding of the inherent interrelationship of perceiver and perceived
- (C) recognition of the need for sophisticated instruments of measurement
- (D) emphasis on small-scale rather than on large-scale phenomena
- (E) regard for philosophical issues as well as for strictly scientific ones

GO ON TO THE NEXT PAGE.

Tillie Olsen's fiction and essays have been widely and rightly acknowledged as major contributions to American literature. Her work has been particularly valued by contemporary feminists.

- (5) Yet few of Olsen's readers realize the extent to which her vision and choice of subject are rooted in an earlier literary heritage—the tradition of radical political thought, mostly socialist and anarchist, of the 1910's and 1920's, (10) and the Old Left tradition of the 1930's. I do not mean that one can adequately explain the eloquence of her work in terms of its political origins, or that left-wing politics were the single most important influence on it. My point is that (15) its central consciousness—its profound understanding of class and gender as shaping influences on people's lives—owes much to that earlier literary heritage, a heritage that, in general, has not been sufficiently valued by most contemporary literary critics.

24. The primary purpose of the passage is to

- (A) argue that Olsen's understanding of class and gender is her greatest gift as a writer
(B) acknowledge Olsen's importance as the leading spokesperson for a radical literary heritage
(C) point out a literary heritage to which Olsen's work is related
(D) urge literary critics to investigate the origins of a literary heritage
(E) suggest that Olsen's work has been placed in a literary heritage to which it does not belong

25. According to the author, which of the following is true of the heritage mentioned in the passage?

- (A) It emphasizes gender as the determinate influence on people's lives.
(B) It has been the most important influence on Olsen's work.
(C) It includes political traditions that span three decades of the twentieth century.
(D) It explains the eloquence but not the subject matter of Olsen's work.
(E) It reflects primarily the development of socialist political thought in the early twentieth century.

26. In the sentence "I do not . . . influence on it" (lines 10-14), the author does which of the following?

- (A) Broadens an existing classification.
(B) Contradicts the passage's central thesis.
(C) Qualifies a commonly accepted point of view.
(D) Presents conflicting explanations for a phenomenon.
(E) Denies possible interpretations of an earlier assertion.

27. According to the author, Olsen's work has been

- (A) rightly acknowledged for its contribution to political thought
(B) thought to represent the beginning of a new literary tradition
(C) a needed impetus for social change
(D) most clearly influenced by feminism
(E) deservedly admired by readers

GO ON TO THE NEXT PAGE.

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. ASCEND: (A) go down (B) take apart
(C) overturn (D) conceal (E) return
29. POROUS: (A) inadmissible (B) intractable
(C) impermeable (D) impalpable
(E) implacable
30. AFFILIATION:
(A) mismanagement
(B) predisposition
(C) dissociation
(D) disagreement
(E) acquaintance
31. INADVERTENCE:
(A) strong character
(B) collective action
(C) careful attention
(D) unpleasant feature
(E) unhesitating obedience

32. BOLSTER: (A) condense
(B) undermine (C) disprove
(D) cancel (E) misinterpret
33. CATALYZE: (A) distort
(B) cool (C) refine
(D) contaminate (E) inhibit
34. WAFFLE: (A) discharge (B) construct
(C) insist harshly (D) praise repeatedly
(E) speak unequivocally
35. DISCRETE:
(A) continuous
(B) external
(C) highly developed
(D) illogically composed
(E) properly described
36. LACONIC: (A) blithe (B) incapable
(C) flagrant (D) garrulous
(E) intransigent
37. DECOROUS: (A) unlikely
(B) uncomfortable (C) unrepentant
(D) unseemly (E) unattractive
38. INCIPIENT: (A) exuberant (B) full-bodied
(C) explicit (D) plentiful (E) full-blown

SECTION 4

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. Despite the fact that the two council members belonged to different political parties, they — the issue of how to finance the town debt.
(A) complicated (B) avoided
(C) attested to (D) reported on
(E) agreed on
2. The breathing spell provided by the — arms shipments should give all the combatants a chance to reevaluate their positions.
(A) plethora of
(B) moratorium on
(C) reciprocation of
(D) concentration on
(E) development of
3. The notion that cultural and biological influences — determine cross-cultural diversity is discredited by the fact that, in countless aspects of human existence, it is cultural programming that overwhelmingly accounts for cross-population variance.
(A) jointly (B) completely (C) directly
(D) equally (E) eventually
4. Because medieval women's public participation in spiritual life was not welcomed by the male establishment, a compensating — religious writings, inoffensive to the members of the establishment because of its —, became important for many women.
(A) involvement with..privacy
(B) attention to..popularity
(C) familiarity with..scarcity
(D) dissatisfaction with..profundity
(E). resistance to..domesticity
5. This final essay, its prevailing kindness — by occasional flashes of savage irony, bespeaks the — character of the author.
(A) illuminated..imperturbable
(B) marred..dichotomous
(C) untainted..vindictive
(D) exemplified..chivalrous
(E) diluted..ruthless
6. Although his attempts to appear psychotic were so — as to be almost —, there is evidence that Ezra Pound was able to avoid standing trial for treason merely by faking symptoms of mental illness.
(A) spontaneous..amusing
(B) contrived..believable
(C) clumsy..judicious
(D) stylized..distressing
(E) sporadic..premeditated
7. The — questions that consistently structure the study of history must be distinguished from merely — questions, which have their day and then pass into oblivion.
(A) recurrent..practical
(B) instinctive..factual
(C) ingrained..discriminating
(D) philosophical..random
(E) perennial..ephemeral

GO ON TO THE NEXT PAGE.

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. CLIENTELE : CUSTOMERS ::

- (A) army : civilians
- (B) boycott : merchants
- (C) contest : umpires
- (D) testimony : lawyers
- (E) faculty : teachers

9. ARTICULATE : SPEECH ::

- (A) meticulous : power
- (B) graceful : movement
- (C) dissenting : thought
- (D) fawning : respect
- (E) engaging : acceptance

10. COLOSSUS : FIGURINE :: (A) epic : grandeur

- (B) sculptor : statue
- (C) squirrel : chipmunk
- (D) boulder : pebble
- (E) sofa : bench

11. LEAF : OAK :: (A) bulb : tulip

- (B) berry : fruit
- (C) tree : forest
- (D) stem : flower
- (E) needle : pine

12. LATENCY : RESPONSE ::

- (A) term : pregnancy
- (B) incubation : disease
- (C) interval : periodicity
- (D) duration : process
- (E) fluctuation : equilibrium

13. RETRACT : STATEMENT ::

- (A) substantiate : pledge
- (B) reiterate : belief
- (C) reveal : promise
- (D) precipitate : procedure
- (E) repeal : legislation

14. JUGGERNAUT : CRUSH ::

- (A) quisling : betray
- (B) incubus : hatch
- (C) sphinx : destroy
- (D) sibyl : mislead
- (E) paragon : purify

15. FRUGAL : PENURIOUS ::

- (A) temperate : sober
- (B) ethical : unscrupulous
- (C) cynical : sarcastic
- (D) compliant : obsequious
- (E) loathsome : malevolent

16. DEPART : ABSCOND :: (A) store : secrete

- (B) close : occlude
- (C) speak : harangue
- (D) intervene : interfere
- (E) cover : eclipse

GO ON TO THE NEXT PAGE.

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.

- Currently, the paramount problem in the field of biomaterials, the science of replacing diseased tissue with human-made implants, is control over the interface, or surface, between implanted biomaterials and living tissues. The physical properties of most tissues can be matched by careful selection of raw materials: metals, ceramics, or several varieties of polymer materials. Even the requirement that biomaterials processed from these materials be nontoxic to host tissue can be met by techniques derived from studying the reactions of tissue cultures to biomaterials or from short-term implants. But achieving necessary matches in physical properties across interfaces between living and non-living matter requires knowledge of which molecules control the bonding of cells to each other—an area that we have not yet explored thoroughly. Although recent research has allowed us to stabilize the tissue-biomaterial interface by controlling either the chemical reactions or the microstructure of the biomaterials, our fundamental understanding of how implant devices adhere to tissues remains woefully incomplete.
- According to the passage, the major problem currently facing scientists in the field of biomaterials is
- (A) assessing and regulating the bonding between host tissue and implants
 - (B) controlling the transfer of potentially toxic materials across the interface of tissue and implant
 - (C) discovering new materials from which to construct implant devices
 - (D) deciding in what situations implants are needed
 - (E) determining the importance of short-term implants to long-term stability of tissue-implant interfaces

- 18. The passage suggests which of the following about the recent research mentioned in lines 19-25?
 - (A) It has solved one set of problems but has created another.
 - (B) It has concentrated on secondary concerns but has ignored primary concerns.
 - (C) It has improved practical applications of biomaterial technology without providing a complete theoretical explanation of that improvement.
 - (D) It has thoroughly investigated properties of biomaterials but has paid little attention to relevant characteristics of human tissue.
 - (E) It has provided considerable information on short-term implant technology but little on long-term implant technology.
- 19. The author's primary purpose is to
 - (A) answer a theoretical question in the field of biomaterials
 - (B) discuss the current state of technology in the field of biomaterials
 - (C) resolve a research dispute in the field of biomaterials
 - (D) predict an ethical crisis for biomaterials researchers
 - (E) suggest some practical benefits of biomaterial implants

GO ON TO THE NEXT PAGE.

Islamic law is a particularly instructive example of "sacred law." Islamic law is a phenomenon so different from all other forms of law—notwithstanding, of course, a considerable and inevitable number of coincidences with one or the other of them as far as subject matter and positive enactments are concerned—that its study is indispensable in order to appreciate adequately the full range of possible legal phenomena. Even the two other representatives of sacred law that are historically and geographically nearest to it, Jewish law and Roman Catholic canon law, are perceptibly different.

Both Jewish law and canon law are more uniform than Islamic law. Though historically there is a discernible break between Jewish law of the sovereign state of ancient Israel and of the Diaspora (the dispersion of Jewish people after the conquest of Israel), the spirit of the legal matter in later parts of the Old Testament is very close to that of the Talmud, one of the primary codifications of Jewish law in the Diaspora. Islam, on the other hand, represented a radical breakaway from the Arab paganism that preceded it. Islamic law is the result of an examination, from a religious angle, of legal subject matter that was far from uniform, comprising as it did the various components of the laws of pre-Islamic Arabia and numerous legal elements taken over from the non-Arab peoples of the conquered territories. All this was unified by being subjected to the same kind of religious scrutiny, the impact of which varied greatly, being almost nonexistent in some fields, and in others originating novel institutions. This central duality of legal subject matter and religious norm is additional to the variety of legal, ethical, and ritual rules that is typical of sacred law.

In its relation to the secular state, Islamic law differed from both Jewish and canon law. Jewish law was buttressed by the cohesion of the community, reinforced by pressure from outside; its rules are the direct expression of this feeling of cohesion, tending toward the accommodation of dissent. Canon and Islamic law, on the contrary, were dominated by the dualism of religion and state, where the state was not, in contrast with Judaism, an alien power but the political expression of the same religion. But the conflict between state and religion took different forms; in Christianity it appeared as the struggle for political power on the part of a tightly organized ecclesiastical hierarchy, and canon law was one of its political weapons. Islamic law, on the other hand, was never supported by an organized institution; consequently, there never developed an overt trial of strength. There merely existed discordance between application of the sacred law and many of the regulations framed by Islamic states; this antagonism varied according to place and time.

20. The author's purpose in comparing Islamic law to Jewish law and canon law is most probably to
 - (A) contend that traditional legal subject matter does not play a large role in Islamic law
 - (B) support his argument that Islamic law is a unique kind of legal phenomenon
 - (C) emphasize the variety of forms that can all be considered sacred law
 - (D) provide an example of how he believes comparative institutional study should be undertaken
 - (E) argue that geographical and historical proximity does not necessarily lead to parallel institutional development.
21. The passage provides information to answer which of the following questions?
 - (A) Does Islamic law depend on sources other than Arab legal principles?
 - (B) What secular practices of Islamic states conflicted with Islamic law?
 - (C) Are Jewish law and canon law the most typical examples of sacred law?
 - (D) Is Jewish law more uniform than canon law?
 - (E) What characterized Arab law of the pre-Islamic era?
22. According to the passage, which of the following statements about sacred law is correct?
 - (A) The various systems of sacred law originated in a limited geographical area.
 - (B) The various systems of sacred law have had marked influence on one another.
 - (C) Systems of sacred law usually rely on a wide variety of precedents.
 - (D) Systems of sacred law generally contain prescriptions governing diverse aspects of human activity.
 - (E) Systems of sacred law function most effectively in communities with relatively small populations.

GO ON TO THE NEXT PAGE.

23. It can be inferred from the passage that the application of Islamic law in Islamic states has
- (A) systematically been opposed by groups who believe it is contrary to their interests
 - (B) suffered irreparably from the lack of firm institutional backing
 - (C) frequently been at odds with the legal activity of government institutions
 - (D) remained unaffected by the political forces operating alongside it
 - (E) benefited from the fact that it never experienced a direct confrontation with the state
24. Which of the following most accurately describes the organization of the passage?
- (A) A universal principle is advanced and then discussed in relation to a particular historical phenomenon.
 - (B) A methodological innovation is suggested and then examples of its efficacy are provided.
 - (C) A traditional interpretation is questioned and then modified to include new data.
 - (D) A general opinion is expressed and then supportive illustrations are advanced.
 - (E) A controversial viewpoint is presented and then both supportive evidence and contradictory evidence are cited.
25. The passage implies that the relationship of Islamic, Jewish, and canon law is correctly described by which of the following statements?
- I. Because each constitutes an example of sacred law, they necessarily share some features.
 - II. They each developed in reaction to the interference of secular political institutions.
 - III. The differences among them result partly from their differing emphasis on purely ethical rules.
- (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
26. The passage suggests that canon law differs from Islamic law in that only canon law
- (A) contains prescriptions that nonsacred legal systems might regard as properly legal
 - (B) concerns itself with the duties of a person in regard to the community as a whole
 - (C) was affected by the tension of the conflict between religion and state
 - (D) developed in a political environment that did not challenge its fundamental existence
 - (E) played a role in the direct confrontation between institutions vying for power
27. All of the following statements about the development of Islamic law are implied in the passage EXCEPT:
- (A) Pre-Islamic legal principles were incorporated into Islamic law with widely differing degrees of change.
 - (B) Diverse legal elements were joined together through the application of a purely religious criterion.
 - (C) Although some of the sources of Islamic law were pagan, its integrity as a sacred law was not compromised by their incorporation.
 - (D) There was a fundamental shared characteristic in all pre-Islamic legal matter taken over by Islamic law.
 - (E) Although Islam emerged among the Arabs, Islamic law was influenced by ethnically diverse elements.

GO ON TO THE NEXT PAGE.

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. ASEPTIC: (A) contaminated (B) dispersed
(C) oxidized (D) persistent (E) haphazard

29. QUIESCENCE: (A) impartiality
(B) subtlety (C) indictment
(D) rationality (E) action

30. LUMBER: (A) align (B) squelch
(C) swerve (D) resist (E) glide

31. NUCLEATE: (A) displace (B) scatter
(C) preserve (D) smother (E) deactivate

32. LEVITY: (A) veracity
(B) audacity (C) felicity
(D) gravity (E) depravity

33. DENUNCIATION: (A) suspension
(B) indecision (C) eulogy
(D) catharsis (E) pronouncement

34. TREACHEROUSNESS: (A) intellectuality
(B) faithfulness (C) noteworthiness
(D) pleasantness (E) consideration

35. SOPORIFIC:
(A) artificial nourishment
(B) hallucinatory experience
(C) effective cure
(D) auxiliary
(E) stimulant

36. STYMIC: (A) entreat (B) apprise
(C) foster (D) lend credibility
(E) change direction

37. MUNDANE: (A) unearthly
(B) synthetic (C) costly
(D) fragile (E) complicated

38. WELTER:
(A) orderly arrangement
(B) convincing remark
(C) inconclusive meeting
(D) luxuriant growth
(E) eccentric character

FOR GENERAL TEST 22 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 4			Section 2			Section 5			Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	D	73	1	E	94	1	B	92	1	A	93	1	A	88	1	A	74
2	A	60	2	B	69	2	C	96	2	B	78	2	A	80	2	D	74
3	O	66	3	D	59	3	A	86	3	B	87	3	B	72	3	D	63
4	B	64	4	A	59	4	A	90	4	A	81	4	E	82	4	A	77
5	C	54	5	B	59	5	B	89	5	D	85	5	C	88	5	E	.54
6	B	57	6	C	46	6	D	82	6	C	79	6	C	51	6	B	66
7	C	50	7	E	49	7	A	73	7	B	77	7	C	65	7	C	83
8	A	93	8	E	91	8	D	74	8	A	68	8	A	81	8	D	79
9	E	84	9	B	82	9	C	67	9	O	59	9	O	44	9	A	65
10	C	92	10	D	76	10	B	75	10	B	56	10	E	83	10	C	63
11	B	42	11	E	76	11	B	74	11	C	61	11	O	62	11	E	63
12	O	54	12	B	45	12	A	53	12	C	51	12	B	57	12	A	59
13	C	37	13	E	80	13	O	46	13	D	50	13	B	50	13	D	61
14	O	29	14	A	17	14	B	45	14	C	33	14	C	52	14	O	73
15	O	26	15	D	19	15	C	33	15	C	29	15	D	35	15	C	54
16	E	22	16	A	13	16	O	88	16	A	83	16	E	34	16	A	37
17	A	50	17	A	78	17	B	83	17	O	78	17	O	49	17	B	37
18	E	70	18	C	62	18	E	78	18	D	83	18	A	39	18	E	41
19	O	73	19	B	91	19	A	72	19	B	87	19	D	14	19	E	25
20	A	67	20	B	70	20	E	69	20	B	73	20	A	41	20	B	52
21	D	70	21	A	46	21	C	88	21	D	91	21	D	17	21	A	25
22	B	44	22	D	36	22	O	85	22	E	94	22	C	39	22	E	16
23	B	72	23	C	35	23	A	57	23	C	31	23	B	53	23	C	37
24	C	68	24	D	53	24	B	47	24	A	70	24	A	30	24	E	46
25	C	45	25	A	38	25	C	38	25	A	51	25	E	24	25	D	42
26	E	48	26	E	28	26	O	53	26	E	59						
27	E	36	27	D	25	27	C	48	27	C	44						
28	A	87	28	A	75	28	E	29	28	E	43						
29	C	86	29	E	46	29	D	31	29	B	42						
30	C	91	30	E	64	30	A	36	30	E	39						
31	C	69	31	B	65												
32	B	68	32	D	55												
33	E	67	33	C	39												
34	E	40	34	B	43												
35	A	35	35	E	38												
36	O	41	36	C	52												
37	D	28	37	A	35												
38	E	15	38	A	25												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 23

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. The natural balance between prey and predator has been increasingly —, most frequently by human intervention.
(A) celebrated (B) predicted (C) observed
(D) disturbed (E) questioned
2. There is some — the fact that the author of a book as sensitive and informed as *Indian Artisans* did not develop her interest in Native American art until adulthood, for she grew up in a region rich in American Indian culture.
(A) irony in (B) satisfaction in
(C) doubt about (D) concern about
(E) presumptuousness in
3. Ecology, like economics, concerns itself with the movement of valuable — through a complex network of producers and consumers.
(A) commodities (B) dividends
(C) communications (D) nutrients
(E) artifacts
4. Observable as a tendency of our culture is a — of — psychoanalysis: we no longer feel that it can solve our emotional problems.
(A) divergence..certainty about
(B) confrontation..enigmas in
(C) withdrawal..belief in
(D) defense..weaknesses in
(E) failure..rigor in

5. The struggle of the generations is one of the obvious constants of human affairs; therefore, it may be presumptuous to suggest that the rivalry between young and old in Western society during the current decade is — critical.
(A) perennially (B) disturbingly
(C) uniquely (D) archetypally
(E) captiously
6. Rhetoric often seems to — over reason in a heated debate, with both sides — in hyperbole.
(A) cloud..subsiding
(B) prevail..yielding
(C) triumph..engaging
(D) reverberate..clamoring
(E) trample..tangling
7. Melodramas, which presented stark oppositions between innocence and criminality, virtue and corruption, good and evil, were popular precisely because they offered the audience a world — of —.
(A) bereft..theatricality
(B) composed..adversity
(C) full..circumstantiality
(D) deprived..polarity
(E) devoid..neutrality

GO ON TO THE NEXT PAGE.

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. NURTURE:CHILD ::

- (A) cultivate:crop
- (B) quench:fire
- (C) marvel:infant
- (D) secure:possession
- (E) delimit:obligation

9. SAW:CARPENTER :: (A) brush:painter
(B) typewriter:author

(C) trowel:bricklayer

(D) wagon:farmer

(E) scissors:tailor

10. EPITAPH:TOMBSTONE ::

- (A) pedestal:statue
- (B) prologue:play
- (C) melody:song
- (D) salutation:letter
- (E) motto:shield

11. SIMPER:SMILE :: (A) babble:talk

- (B) thought:blank
- (C) look:espionage

(D) leer:ogle

(E) wink:eye

12. EGG:CHICKEN :: (A) pearl:oyster

- (B) roe:salmon
- (C) shell:clam

(D) skin:shark

(E) tusk:walrus

13. GLIMMER:DAZZLE ::

- (A) delineate:disclaim
- (B) recede:abandon
- (C) recite:harangue
- (D) muse:reflect
- (E) murmur:resound

14. RESCIND:LAW ::

- (A) postpone:performance
- (B) withdraw:candidacy
- (C) default:debt
- (D) demote:hierarchy
- (E) retire:position

15. ENTANGLE:INVOLVE :: (A) caution:fear

- (B) compel:force
- (C) grill:question

(D) replicate:copy

(E) waver:adhere

16. ALCHEMY:SCIENCE ::

- (A) sideshow:carnival
- (B) forgery:imitation
- (C) burlesque:comedy
- (D) ploy:tactic
- (E) nostrum:remedy

GO ON TO THE NEXT PAGE.

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.

- A mysterious phenomenon is the ability of over-water migrants to travel on course. Birds, bees, and other species can keep track of time without any sensory cues from the outside
- (5) world, and such "biological clocks" clearly contribute to their "compass sense." For example, they can use the position of the Sun or stars, along with the time of day, to find north. But compass sense alone cannot explain how birds
- (10) navigate the ocean: after a flock traveling east is blown far south by a storm, it will assume the proper northeasterly course to compensate. Perhaps, some scientists thought, migrants determine their geographic position on Earth by celestial navigation, almost as human navigators use stars and planets, but this would demand of the animals a fantastic map sense. Researchers now know that some species have a magnetic sense, which might allow migrants to determine
- (15) (20) their geographic location by detecting variations in the strength of the Earth's magnetic field.
17. The main idea of the passage is that
- (A) migration over land requires a simpler explanation than migration over water does
 - (B) the means by which animals migrate over water are complex and only partly understood
 - (C) the ability of migrant animals to keep track of time is related to their magnetic sense
 - (D) knowledge of geographic location is essential to migrants with little or no compass sense
 - (E) explanations of how animals migrate tend to replace, rather than build on, one another
18. It can be inferred from the passage that if the flock of birds described in lines 8-12 were navigating by compass sense alone, they would, after the storm, fly
- (A) east (B) north (C) northwest
 - (D) south (E) southeast

19. In maintaining that migrating animals would need "a fantastic map sense" (line 17) to determine their geographic position by celestial navigation, the author intends to express
- (A) admiration for the ability of the migrants
 - (B) skepticism about celestial navigation as an explanation
 - (C) certainty that the phenomenon of migration will remain mysterious
 - (D) interest in a new method of accounting for over-water migration
 - (E) surprise that animals apparently navigate in much the same way that human beings do
20. Of the following descriptions of migrating animals, which most strongly suggests that the animals are depending on magnetic cues to orient themselves?
- (A) Pigeons can properly readjust their course even when flying long distances through exceedingly dense fogs.
 - (B) Bison are able to reach their destination by passing through a landscape that has been partially altered by a recent fire.
 - (C) Elephants are able to find grounds that some members of the herd have never seen before.
 - (D) Swallows are able to return to a given spot at the same time every year.
 - (E) Monarch butterflies coming from different parts of North America are able to arrive at the same location each winter.

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Roger Rosenblatt's book *Black Fiction*, in attempting to apply literary rather than sociopolitical criteria to its subject, successfully alters the approach taken by most previous studies. As Rosenblatt notes, criticism of Black writing has often served as a pretext for expounding on Black history. Addison Gayle's recent work, for example, judges the value of Black fiction by overtly political standards, rating each work according to the notions of Black identity which it proclaims.

Although fiction assuredly springs from political circumstances, its authors react to those circumstances in ways other than ideological, and talking about novels and stories primarily as instruments of ideology circumvents much of the fictional enterprise. Rosenblatt's literary analysis discloses affinities and connections among works of Black fiction which solely political studies have overlooked or ignored.

Writing acceptable criticism of Black fiction, however, presupposes giving satisfactory answers to a number of questions. First of all, is there a sufficient reason, other than the racial identity of the authors, to group together works by Black authors? Second, how does Black fiction make itself distinct from other modern fiction with which it is largely contemporaneous? Rosenblatt shows that Black fiction constitutes a distinct body of writing that has an identifiable, coherent literary tradition. Looking at novels written by Blacks over the last eighty years, he discovers recurring concerns and designs independent of chronology. These structures are thematic, and they spring, not surprisingly, from the central fact that the Black characters in these novels exist in a predominantly White culture, whether they try to conform to that culture or rebel against it.

Black Fiction does leave some aesthetic questions open. Rosenblatt's thematic analysis permits considerable objectivity; he even explicitly states that it is not his intention to judge the merit of the various works—yet his reluctance seems misplaced, especially since an attempt to appraise might have led to interesting results. For instance, some of the novels appear to be structurally diffuse. Is this a defect, or are the authors working out of, or trying to forge, a different kind of aesthetic? In addition, the style of some Black novels, like Jean Toomer's *Cane*, verges on expressionism or surrealism; does this technique provide a counterpoint to the prevalent theme that portrays the fate against which Black heroes are pitted, a theme usually conveyed by more naturalistic modes of expression?

In spite of such omissions, what Rosenblatt does include in his discussion makes for an astute and worthwhile study. *Black Fiction* surveys a wide variety of novels, bringing to our attention in the process

some fascinating and little-known works like James Weldon Johnson's *Autobiography of an Ex-Colored Man*. Its argument is tightly constructed, and its forthright, lucid style exemplifies levelheaded and penetrating criticism.

21. The author of the passage objects to criticism of Black fiction like that by Addison Gayle because it
 - (A) emphasizes purely literary aspects of such fiction
 - (B) misinterprets the ideological content of such fiction
 - (C) misunderstands the notions of Black identity contained in such fiction
 - (D) substitutes political for literary criteria in evaluating such fiction
 - (E) ignores the interplay between Black history and Black identity displayed in such fiction

22. The author of the passage is primarily concerned with
 - (A) evaluating the soundness of a work of criticism
 - (B) comparing various critical approaches to a subject
 - (C) discussing the limitations of a particular kind of criticism
 - (D) summarizing the major points made in a work of criticism
 - (E) explaining the theoretical background of a certain kind of criticism

GO ON TO THE NEXT PAGE.

23. The author of the passage believes that *Black Fiction* would have been improved had Rosenblatt
- (A) evaluated more carefully the ideological and historical aspects of Black fiction
 - (B) attempted to be more objective in his approach to novels and stories by Black authors
 - (C) explored in greater detail the recurrent thematic concerns of Black fiction throughout its history
 - (D) established a basis for placing Black fiction within its own unique literary tradition
 - (E) assessed the relative literary merit of the novels he analyzes thematically
24. The author's discussion of *Black Fiction* can be best described as
- (A) pedantic and contentious
 - (B) critical but admiring
 - (C) ironic and deprecating
 - (D) argumentative but unfocused
 - (E) stilted and insincere
25. It can be inferred that the author of the passage would be LEAST likely to approve of which of the following?
- (A) An analysis of the influence of political events on the personal ideology of Black writers
 - (B) A critical study that applies sociopolitical criteria to autobiographies by Black authors
 - (C) A literary study of Black poetry that appraises the merits of poems according to the political acceptability of their themes
 - (D) An examination of the growth of a distinct Black literary tradition within the context of Black history
 - (E) A literary study that attempts to isolate aesthetic qualities unique to Black fiction
26. The author of the passage uses all of the following in the discussion of Rosenblatt's book EXCEPT
- (A) rhetorical questions
 - (B) specific examples
 - (C) comparison and contrast
 - (D) definition of terms
 - (E) personal opinion
27. The author of the passage refers to James Weldon Johnson's *Autobiography of an Ex-Colored Man* most probably in order to
- (A) point out affinities between Rosenblatt's method of thematic analysis and earlier criticism
 - (B) clarify the point about expressionistic style made earlier in the passage
 - (C) qualify the assessment of Rosenblatt's book made in the first paragraph of the passage
 - (D) illustrate the affinities among Black novels disclosed by Rosenblatt's literary analysis
 - (E) give a specific example of one of the accomplishments of Rosenblatt's work

GO ON TO THE NEXT PAGE.

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. INFINITY:

- (A) bounded space
- (B) physical repulsion
- (C) inadequate measurement
- (D) weak charge
- (E) small miscalculation

29. TRUCE: (A) resumed fighting

- (B) false pretenses
- (C) genuine grievances
- (D) nonmilitary service
- (E) tactical error

30. DAMPED: (A) phonetic (B) flexible

- (C) amplified
- (D) concentrated
- (E) variable

31. TURBULENT: (A) obverse (B) extensive

- (C) serial
- (D) pacific
- (E) deflated

32. LUCID: (A) vague (B) cynical
(C) tedious (D) unreliable (E) improper

33. EBULLIENCE: (A) pomposity (B) sterility
(C) awkwardness (D) careful organization
(E) calm restraint

34. CAPRICIOUS: (A) deductive
(B) meaningful (C) steadfast (D) limited
(E) straightforward

35. IMPASSIVE: (A) overwrought
(B) long-winded (C) pompous
(D) energetic (E) adept

36. TORTUOUS: (A) gently inclined
(B) logically accurate (C) surmountable
(D) sparse (E) direct

37. TOUT: (A) placate (B) misrepresent
(C) withhold consent (D) cast aspersions on
(E) deny the relevance of

38. PROMPT: (A) betray (B) check
(C) sway (D) complicate (E) defer

SECTION 4

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. In the current research program, new varieties of apple trees are evaluated under different agricultural —— for tree size, bloom density, fruit size, —— to various soils, and resistance to pests and disease.

(A) circumstances..proximity
(B) regulations..conformity
(C) conditions..adaptability
(D) auspices..susceptibility
(E) configurations..propensity

2. At first, I found her gravity rather intimidating; but, as I saw more of her, I found that —— was very near the surface.

(A) seriousness (B) confidence
(C) laughter (D) poise (E) determination

3. Even though in today's Soviet Union the —— the Muslim clergy have been accorded power and privileges, the Muslim laity and the rank-and-file clergy still have little —— to practice their religion.

(A) practitioners among..opportunity
(B) dissidents within..obligation
(C) adversaries of..inclination
(D) leaders of..latitude
(E) traditionalists among..incentive

4. The proponents of recombinant DNA research have decided to —— federal regulation of their work; they hope that by making this compromise they can forestall proposed state and local controls that might be even stiffer.

(A) protest (B) institute (C) deny
(D) encourage (E) disregard

5. It is to the novelist's credit that all of the episodes in her novel are presented realistically, without any —— or playful supernatural tricks.

(A) elucidation (B) discrimination
(C) artlessness (D) authenticity
(E) whimsy

6. Our new tools of systems analysis, powerful though they may be, lead to —— theories, especially, and predictably, in economics and political science, where productive approaches have long been highly ——.

(A) pragmatic..speculative
(B) inelegant..efficacious
(C) explanatory..intuitive
(D) wrongheaded..convergent
(E) simplistic..elusive

7. Nineteenth-century scholars, by examining earlier geometric Greek art, found that classical Greek art was not a magical —— or a brilliant —— blending Egyptian and Assyrian art, but was independently evolved by Greeks in Greece.

(A) stratagem..appropriation
(B) exemplar..synthesis
(C) conversion..annexation
(D) paradigm..construct
(E) apparition..amalgam

GO ON TO THE NEXT PAGE.

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. ANXIOUS:REASSURANCE ::

- (A) resentful:gratitude
- (B) perplexed:clarification
- (C) inured:imagination
- (D) vociferous:suppression
- (E) abstemious:indulgence

9. STANZA:POEM :: (A) pirouette:ballet

- (B) rhyme:verse
- (C) duet:chorus
- (D) act:opera
- (E) mimicry:pantomime

10. COIN:DENOMINATION :: (A) book:title

- (B) officer:rank
- (C) house:architecture
- (D) doctor:profession
- (E) tree:wood

11. EMBELLISH:AUSTERE ::

- (A) condense:illusory
- (B) alter:remarkable
- (C) train:clumsy
- (D) adulterate:pure
- (E) refine:unique

* 12. PORTFOLIO:SECURITIES ::

- (A) assessment:taxes
- (B) computer:programs
- (C) insurance:risks
- (D) résumé:careers
- (E) dossier:reports

13. EXHORT:SUGGEST :: (A) crave:accept

- (B) goad:direct
- (C) instruct:teach
- (D) tamper:adjust
- (E) conspire:plan

14. CLAY:PORCELAIN :: (A) glass:china

- (B) fire:ash
- (C) slag:iron
- (D) flax:linen
- (E) sand:sediment

15. SERMON:HOMILETICS ::

- (A) argument:logic
- (B) baseball:athletics
- (C) word:language
- (D) student:pedagogy
- (E) album:philately

16. MATRIX:NUMBERS :: (A) gas:molecules

- (B) volume:liquid
- (C) crystal:atoms
- (D) interaction:reagents
- (E) stratum:layer

GO ON TO THE NEXT PAGE.

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.

The molecules of carbon dioxide in the Earth's atmosphere affect the heat balance of the Earth by acting as a one-way screen. Although these molecules allow radiation at visible wavelengths, where most of the energy of sunlight is concentrated, to pass through, they absorb some of the longer-wavelength, infrared emissions radiated from the Earth's surface, radiation that would otherwise be transmitted back into space. For the Earth to maintain a constant average temperature, such emissions from the planet must balance incoming solar radiation. If there were no carbon dioxide in the atmosphere, heat would escape from the Earth much more easily. The surface temperature would be so much lower that the oceans might be a solid mass of ice.

Today, however, the potential problem is too much carbon dioxide. The burning of fossil fuels and the clearing of forests have increased atmospheric carbon dioxide by about 15 percent in the last hundred years, and we continue to add carbon dioxide to the atmosphere. Could the increase in carbon dioxide cause a global rise in average temperature, and could such a rise have serious consequences for human society? Mathematical models that allow us to calculate the rise in temperature as a function of the increase indicate that the answer is probably yes.

Under present conditions a temperature of -18°C can be observed at an altitude of 5 to 6 kilometers above the Earth. Below this altitude (called the radiating level), the temperature increases by about 6°C per kilometer approaching the Earth's surface, where the average temperature is about 15°C . An increase in the amount of carbon dioxide means that there are more molecules of carbon dioxide to absorb infrared radiation. As the capacity of the atmosphere to absorb infrared radiation increases, the radiating level and the temperature of the surface must rise.

One mathematical model predicts that doubling the atmospheric carbon dioxide would raise the global mean surface temperature by 2.5°C . This model assumes that the atmosphere's relative humidity remains constant and the temperature decreases with altitude at a rate of 6.5°C per kilometer. The assumption of constant relative humidity is important, because water vapor in the atmosphere is another efficient absorber of radiation at infrared wavelengths. Because warm air can hold more moisture than cool air, the relative humidity will be constant only if the

amount of water vapor in the atmosphere increases as the temperature rises. Therefore, more infrared radiation would be absorbed and reradiated back to the Earth's surface. The resultant warming at the surface could be expected to melt snow and ice, reducing the Earth's reflectivity. More solar radiation would then be absorbed, leading to a further increase in temperature.

17. The primary purpose of the passage is to

- (A) warn of the dangers of continued burning of fossil fuels
- (B) discuss the significance of increasing the amount of carbon dioxide in the atmosphere
- (C) explain how a constant temperature is maintained on the Earth's surface
- (D) describe the ways in which various atmospheric and climatic conditions contribute to the Earth's weather
- (E) demonstrate the usefulness of mathematical models in predicting long-range climatic change

18. According to the passage, the greatest part of the solar energy that reaches the Earth is

- (A) concentrated in the infrared spectrum
- (B) concentrated at visible wavelengths
- (C) absorbed by carbon dioxide molecules
- (D) absorbed by atmospheric water vapor
- (E) reflected back to space by snow and ice

GO ON TO THE NEXT PAGE.

19. According to the passage, atmospheric carbon dioxide performs all of the following functions EXCEPT
- (A) absorbing radiation at visible wavelengths
 - (B) absorbing infrared radiation
 - (C) absorbing outgoing radiation from the Earth
 - (D) helping to retain heat near the Earth's surface
 - (E) helping to maintain a constant average temperature on the Earth's surface
20. Which of the following best describes the author's attitude toward the increasing amount of carbon dioxide in the atmosphere and its consequences?
- (A) Incredulous
 - (B) Completely detached
 - (C) Interested but skeptical
 - (D) Angry yet resigned
 - (E) Objective yet concerned
21. It can be concluded from information contained in the passage that the average temperature at an altitude of 1 kilometer above the Earth is about
- (A) 15°C
 - (B) 9°C
 - (C) 2.5°C
 - (D) -12°C
 - (E) -18°C
22. It can be inferred from the passage that the construction of the mathematical model mentioned in the passage involved the formulation of which of the following?
- (A) An assumption that the amount of carbon dioxide added to the atmosphere would in reality steadily increase
 - (B) An assumption that human activities are the only agencies by which carbon dioxide is added to the atmosphere
 - (C) Assumptions about the social and political consequences of any curtailment of the use of fossil fuels
 - (D) Assumptions about the physical conditions that are likely to prevail during the period for which the model was made
 - (E) Assumptions about the differential behavior of carbon dioxide molecules at the various levels of temperature calculated in the model
23. According to the passage, which of the following is true of the last hundred years?
- (A) Fossil fuels were burned for the first time.
 - (B) Greater amounts of land were cleared than at any time before.
 - (C) The average temperature at the Earth's surface has become 2°C cooler.
 - (D) The amount of carbon dioxide in the atmosphere has increased measurably.
 - (E) The amount of farmland worldwide has doubled.

GO ON TO THE NEXT PAGE.

Some modern anthropologists hold that biological evolution has shaped not only human morphology but also human behavior. The role those anthropologists ascribe to evolution is not of dictating the details of human behavior but one of imposing constraints—ways of feeling, thinking, and acting that “come naturally” in archetypal situations in any culture. Our “frailties”—emotions and motives such as rage, fear, greed, gluttony, joy, lust, love—may be a very mixed assortment, but they share at least one immediate quality: we are, as we say, “in the grip” of them. And thus they give us our sense of constraints.

Unhappily, some of those frailties—our need for ever-increasing security among them—are presently maladaptive. Yet beneath the overlay of cultural detail, they, too, are said to be biological in direction, and therefore as natural to us as are our appendixes. We would need to comprehend thoroughly their adaptive origins in order to understand how badly they guide us now. And we might then begin to resist their pressure.

24. The primary purpose of the passage is to present

- (A) a position on the foundations of human behavior and on what those foundations imply
- (B) a theory outlining the parallel development of human morphology and of human behavior
- (C) a diagnostic test for separating biologically determined behavior patterns from culture-specific detail
- (D) a practical method for resisting the pressures of biologically determined drives
- (E) an overview of those human emotions and motives that impose constraints on human behavior

25. The author implies that control to any extent over the “frailties” that constrain our behavior is thought to presuppose

- (A) that those frailties are recognized as currently beneficial and adaptive
- (B) that there is little or no overlay of cultural detail that masks their true nature
- (C) that there are cultures in which those frailties do not “come naturally” and from which such control can be learned
- (D) a full understanding of why those frailties evolved and of how they function now
- (E) a thorough grasp of the principle that cultural detail in human behavior can differ arbitrarily from society to society

26. Which of the following most probably provides an appropriate analogy from human morphology for the “details” versus “constraints” distinction made in the passage in relation to human behavior?

- (A) The ability of most people to see all the colors of the visible spectrum as against most people's inability to name any but the primary colors
- (B) The ability of even the least fortunate people to show compassion as against people's inability to mask their feelings completely
- (C) The ability of some people to dive to great depths as against most people's inability to swim long distances
- (D) The psychological profile of those people who are able to delay gratification as against people's inability to control their lives completely
- (E) The greater lung capacity of mountain peoples that helps them live in oxygen-poor air as against people's inability to fly without special apparatus

27. It can be inferred that in his discussion of maladaptive frailties the author assumes that

- (A) evolution does not favor the emergence of adaptive characteristics over the emergence of maladaptive ones
- (B) any structure or behavior not positively adaptive is regarded as transitory in evolutionary theory
- (C) maladaptive characteristics, once fixed, make the emergence of other maladaptive characteristics more likely
- (D) the designation of a characteristic as being maladaptive must always remain highly tentative
- (E) changes in the total human environment can outpace evolutionary change

GO ON TO THE NEXT PAGE.

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. PRESS: (A) excel (B) desire
(C) act (D) require (E) withdraw
29. INNOCENCE: (A) punishment (B) verdict
(C) corrosion (D) guilt (E) conflict
30. ELABORATE: (A) criticize (B) simplify
(C) imbue (D) expel (E) confuse
31. PERSISTENCE: (A) inequality
(B) inconstancy (C) irrelevance
(D) incompetence (E) intemperance
32. SKEPTICISM: (A) plausibility
(B) audacity (C) reason (D) argument
(E) conviction

33. REACTANT: (A) by-product (B) low-grade ore
(C) inert material (D) inorganic substance
(E) nonradioactive element
34. CODA: (A) prelude (B) crescendo
(C) solo (D) refrain (E) improvisation
35. HACKNEYED: (A) useful (B) admissible
(C) ornate (D) meticulous (E) original
36. MACERATE: (A) harden by drying
(B) influence by lying
(C) cover by painting
(D) cure by medicating
(E) assess by observing
37. GLIB: (A) illiterate (B) inexplicit
(C) verbose (D) perfunctory (E) labored
38. IMPUGN: (A) revoke (B) discharge
(C) champion (D) console (E) restore

FOR GENERAL TEST 23 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 4			Section 2			Section 5			Section 3			Section 6		
Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +	Number	Answer	P +
1	D	90	1	C	91	1	C	88	1	D	53	1	B	67	1	A	92
2	A	75	2	C	60	2	C	92	2	A	92	2	E	67	2	C	85
3	A	74	3	D	58	3	B	84	3	C	85	3	C	53	3	E	73
4	C	70	4	D	45	4	A	85	4	E	77	4	A	75	4	B	71
5	C	56	5	E	53	5	A	76	5	C	76	5	B	70	5	C	66
6	C	65	6	E	38	6	B	68	6	B	72	6	D	49	6	D	42
7	E	40	7	E	36	7	B	53	7	A	67	7	D	74	7	E	82
8	A	89	8	B	82	8	D	77	8	C	66	8	C	94	8	B	56
9	E	66	9	D	75	9	C	68	9	A	59	9	A	65	9	D	62
10	E	54	10	B	62	10	A	66	10	C	53	10	E	40	10	A	67
11	A	48	11	D	54	11	D	57	11	B	57	11	B	76	11	C	45
12	B	54	12	E	49	12	D	19	12	D	54	12	C	55	12	B	85
13	E	53	13	B	44	13	B	45	13	C	48	13	D	81	13	E	47
14	B	45	14	D	47	14	A	38	14	D	43	14	A	68	14	A	42
15	C	33	15	A	45	15	D	33	15	A	27	15	E	71	15	D	64
16	E	21	16	C	42	16	C	96	16	D	94	16	A	47	16	E	56
17	B	74	17	B	78	17	C	92	17	E	91	17	B	58	17	A	44
18	A	54	18	B	60	18	D	90	18	B	91	18	A	54	18	E	21
19	B	69	19	A	56	19	B	86	19	C	89	19	D	31	19	D	17
20	A	64	20	E	82	20	D	75	20	B	82	20	C	38	20	B	29
21	D	76	21	B	62	21	A	88	21	A	70	21	E	19	21	B	33
22	A	41	22	D	38	22	D	52	22	D	63	22	D	47	22	C	49
23	E	42	23	D	85	23	B	64	23	E	75	23	C	40	23	D	39
24	B	77	24	A	35	24	E	18	24	A	22	24	B	34	24	B	35
25	C	45	25	D	52	25	B	50	25	E	39	25	A	31	25	E	29
26	D	63	26	E	11	26	C	70	26	B	73	26	D	19	26	B	33
27	E	47	27	E	15	27	C	54	27	C	60	27	C	40	27	D	49
28	A	91	28	E	90	28	E	37	28	A	72	28	B	58	28	A	44
29	A	81	29	D	93	29	C	27	29	D	52	29	A	54	29	E	21
30	C	75	30	B	81	30	D	37	30	D	36	30	D	31	30	C	17
31	D	70	31	B	80												
32	A	67	32	E	64												
33	E	51	33	C	61												
34	C	33	34	A	41												
35	A	27	35	E	32												
36	E	28	36	A	31												
37	D	24	37	E	22												
38	B	16	38	C	21												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 24

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. Clearly refuting sceptics, researchers have ----- not only that gravitational radiation exists but that it also does exactly what theory ----- it should do.

(A) doubted..warranted
(B) estimated..accepted
(C) demonstrated..predicted
(D) assumed..deduced
(E) supposed..asserted

2. Sponsors of the bill were ----- because there was no opposition to it within the legislature until after the measure had been signed into law.

(A) unreliable (B) well-intentioned
(C) persistent (D) relieved (E) detained

3. The paradoxical aspect of the myths about Demeter, when we consider the predominant image of her as a tranquil and serene goddess, is her ----- search for her daughter.

(A) extended
(B) agitated
(C) comprehensive
(D) motiveless
(E) heartless

4. Yellow fever, the disease that killed 4,000 Philadelphians in 1793, and so ----- Memphis, Tennessee, that the city lost its charter, has reappeared after nearly two decades in ----- in the Western Hemisphere.

(A) terrorized..contention
(B) ravaged..secret
(C) disabled..quarantine
(D) corrupted..quiescence
(E) decimated..abeyance

5. Although -----, almost self-effacing in his private life, he displays in his plays and essays a strong ----- publicity and controversy.

(A) conventional..interest in
(B) monotonous..reliance on
(C) shy..aversion toward
(D) retiring..penchant for
(E) evasive..impatience with

6. Comparatively few rock musicians are willing to laugh at themselves, although a hint of ----- can boost sales of video clips very nicely.

(A) self-deprecation
(B) congeniality
(C) cynicism
(D) embarrassment
(E) self-doubt

7. Parts of seventeenth-century Chinese pleasure gardens were not necessarily intended to look -----; they were designed expressly to evoke the agreeable melancholy resulting from a sense of the ----- of natural beauty and human glory.

(A) beautiful..immutability
(B) cheerful..transitoriness
(C) colorful..abstractness
(D) luxuriant..simplicity
(E) conventional..wildness

GO ON TO THE NEXT PAGE.

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. APPLE : SKIN :: (A) potato : tuber
(B) melon : rind (C) tomato : fruit
(D) maize : cob (E) rhubarb : leafstalk
9. FIRE : INFERNO ::
(A) speech : shout
(B) wind : temperature
(C) storm : hurricane
(D) whale : minnow
(E) plant : flower
10. BODYGUARD : PERSON ::
(A) police officer : traffic (B) teacher : pupil
(C) mayor : city (D) soldier : country
(E) secretary : office
11. LOPE : RUN :: (A) uncover : lose
(B) view : see (C) sigh : moan
(D) chew : drink (E) drawl : speak
12. HOAX : DECEIVE ::
(A) scandal : vilify
(B) lottery : disburse
(C) gimmick : wheedle
(D) filibuster : delay
(E) boast : cajole

13. ALCOVE : RECESS ::
(A) turret : chimney (B) dome : roof
(C) column : entrance (D) foyer : ballroom
(E) foundation : building
14. BALLAST : INSTABILITY ::
(A) buoy : direction (B) purchase : slippage
(C) lathe : metal (D) pulley : leverage
(E) hoist : elevator
15. MUFFLE : SOUND :: (A) assuage : grief
(B) maul : object (C) extract : flavor
(D) endure : agony (E) conceal : secret
16. MITIGATE : SEVERE ::
(A) compile : available
(B) restore : new
(C) contribute : charitable
(D) venerate : reverent
(E) qualify : general

GO ON TO THE NEXT PAGE.

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.

A Marxist sociologist has argued that racism stems from the class struggle that is unique to the capitalist system—that racial prejudice is generated by capitalists as a means of controlling workers. His thesis works relatively well when applied to discrimination against Blacks in the United States, but his definition of racial prejudice as “racially-based negative prejudices against a group generally accepted as a race in any given region of ethnic competition,” can be interpreted as also including hostility toward such ethnic groups as the Chinese in California and the Jews in medieval Europe. However, since prejudice against these latter peoples was not inspired by capitalists, he has to reason that such antagonisms were not really based on race. He disposes thusly (albeit unconvincingly) of both the intolerance faced by Jews before the rise of capitalism and the early twentieth-century discrimination against Oriental people in California, which, inconveniently, was instigated by workers.

17. The passage supplies information that would answer which of the following questions?
- (A) What accounts for the prejudice against the Jews in medieval Europe?
 - (B) What conditions caused the discrimination against Oriental people in California in the early twentieth century?
 - (C) Which groups are not in ethnic competition with each other in the United States?
 - (D) What explanation did the Marxist sociologist give for the existence of racial prejudice?
 - (E) What evidence did the Marxist sociologist provide to support his thesis?

18. The author considers the Marxist sociologist's thesis about the origins of racial prejudice to be
- (A) unoriginal
 - (B) unpersuasive
 - (C) offensive
 - (D) obscure
 - (E) speculative
19. It can be inferred from the passage that the Marxist sociologist would argue that in a noncapitalist society racial prejudice would be
- (A) pervasive
 - (B) tolerated
 - (C) ignored
 - (D) forbidden
 - (E) nonexistent
20. According to the passage, the Marxist sociologist's chain of reasoning required him to assert that prejudice toward Oriental people in California was
- (A) directed primarily against the Chinese
 - (B) similar in origin to prejudice against the Jews
 - (C) understood by Oriental people as ethnic competition
 - (D) provoked by workers
 - (E) nonracial in character

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By 1950, the results of attempts to relate brain processes to mental experience appeared rather discouraging. Such variations in size, shape, chemistry, conduction speed, excitation threshold, and the like as had been demonstrated in nerve cells remained negligible in significance for any possible correlation with the manifold dimensions of mental experience.

- Near the turn of the century, it had been suggested by Hering that different modes of sensation, such as pain, taste, and color, might be correlated with the discharge of specific kinds of nervous energy. However, subsequently developed methods of recording and analyzing nerve potentials failed (5) to reveal any such qualitative diversity. It was possible to demonstrate by other methods refined structural differences among neuron types; however, proof was lacking that the quality of the impulse or its conduction was influenced by these differences, (10) which seemed instead to influence the developmental patterning of the neural circuits. Although qualitative variance among nerve energies was never rigidly disproved, the doctrine was generally abandoned in favor of the opposing view, namely, that (15) nerve impulses are essentially homogeneous in quality and are transmitted as "common currency" throughout the nervous system. According to this theory, it is not the quality of the sensory nerve impulses that determines the diverse conscious sensations they produce, but rather the different areas (20) of the brain into which they discharge, and there is some evidence for this view. In one experiment, when an electric stimulus was applied to a given sensory field of the cerebral cortex of a conscious (25) human subject, it produced a sensation of the appropriate modality for that particular locus, that is, a visual sensation from the visual cortex, an auditory sensation from the auditory cortex, and so on. Other experiments revealed slight variations in (30) the size, number, arrangement, and interconnection of the nerve cells, but as far as psychoneuronal correlations were concerned, the obvious similarities of these sensory fields to each other seemed much more remarkable than any of the minute differences. (35)
- However, cortical locus, in itself, turned out to have little explanatory value. Studies showed that sensations as diverse as those of red, black, green, and white, or touch, cold, warmth, movement, (40) pain, posture, and pressure apparently may arise through activation of the same cortical areas. What seemed to remain was some kind of differential patterning effects in the brain excitation: it is the difference in the central distribution of impulses that (45) counts. In short, brain theory suggested a correlation between mental experience and the activity of

relatively homogeneous nerve-cell units conducting essentially homogeneous impulses through homogeneous cerebral tissue. To match the multiple dimensions of mental experience psychologists could only point to a limitless variation in the spatiotemporal patterning of nerve impulses.

21. The author suggests that, by 1950, attempts to correlate mental experience with brain processes would probably have been viewed with
(A) indignation (B) impatience (C) pessimism
(D) indifference (E) defiance
22. The author mentions "common currency" in line 26 primarily in order to emphasize the
(A) lack of differentiation among nerve impulses in human beings
(B) similarity of the sensations that all human beings experience
(C) similarities in the views of scientists who have studied the human nervous system
(D) continuous passage of nerve impulses through the nervous system
(E) recurrent questioning by scientists of an accepted explanation about the nervous system
23. The description in lines 32-38 of an experiment in which electric stimuli were applied to different sensory fields of the cerebral cortex tends to support the theory that
(A) the simple presence of different cortical areas cannot account for the diversity of mental experience
(B) variation in spatiotemporal patterning of nerve impulses correlates with variation in subjective experience
(C) nerve impulses are essentially homogeneous and are relatively unaffected as they travel through the nervous system
(D) the mental experiences produced by sensory nerve impulses are determined by the cortical area activated
(E) variation in neuron types affects the quality of nerve impulses

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24. According to the passage, some evidence exists that the area of the cortex activated by a sensory stimulus determines which of the following?
- I. The nature of the nerve impulse
 - II. The modality of the sensory experience
 - III. Qualitative differences within a modality
- (A) II only (B) III only (C) I and II only
(D) II and III only (E) I, II, and III
25. The passage can most accurately be described as a discussion concerning historical views of the
- (A) anatomy of the brain
(B) manner in which nerve impulses are conducted
(C) significance of different cortical areas in mental experience
(D) mechanics of sense perception
(E) physiological correlates of mental experience
26. Which of the following best summarizes the author's opinion of the suggestion that different areas of the brain determine perceptions produced by sensory nerve impulses?
- (A) It is a plausible explanation, but it has not been completely proved.
(B) It is the best explanation of brain processes currently available.
(C) It is disproved by the fact that the various areas of the brain are physiologically very similar.
(D) There is some evidence to support it, but it fails to explain the diversity of mental experience.
(E) There is experimental evidence that confirms its correctness.
27. It can be inferred from the passage that which of the following exhibit the LEAST qualitative variation?
- (A) Nerve cells
(B) Nerve impulses
(C) Cortical areas
(D) Spatial patterns of nerve impulses
(E) Temporal patterns of nerve impulses

GO ON TO THE NEXT PAGE.

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.

8. LAG: (A) look around (B) dodge easily
(C) seem hard (D) forge ahead
(E) change radically
9. RANDOMIZE: (A) distribute (B) analyze
(C) systematize (D) blend (E) prepare
10. SURCHARGE: (A) loss (B) liability
(C) decrease (D) shortfall (E) discount
11. SYNCHRONOUS: (A) off-key
(B) out-of-shape (C) without pity
(D) out-of-phase (E) without difficulty
12. PROFUSE: (A) recurrent (B) rare
(C) comprehensible (D) scanty (E) flawed

33. INERTIA: (A) short duration
(B) massless particle
(C) resistant medium
(D) ability to maintain pressure
(E) tendency to change motion
34. DIN: (A) silence (B) slowness
(C) sharpness (D) essence (E) repose
35. GAUCHENESS: (A) probity (B) sophistry
(C) acumen (D) polish (E) vigor
36. INCHOATE: (A) sordid (B) modern
(C) improvised (D) exceptionally quick
(E) completely formed
37. ENDEMIC: (A) exotic (B) shallow
(C) episodic (D) manifest (E) treatable
38. REDOUBTABLE: (A) unsurprising
(B) unambiguous (C) unimpressive
(D) inevitable (E) immovable

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. Since it is now ----- to build the complex central processing unit of a computer on a single silicon chip using photolithography and chemical etching, it seems plausible that other miniature structures might be fabricated in ----- ways.
(A) unprecedented..undiscovered
(B) difficult..related
(C) permitted..unique
(D) mandatory..congruent
(E) routine..similar
2. Given the evidence of Egyptian and Babylonian ----- later Greek civilization, it would be incorrect to view the work of Greek scientists as an entirely independent creation.
(A) disdain for
(B) imitation of
(C) ambivalence about
(D) deference to
(E) influence on
3. Laws do not ensure social order since laws can always be -----, which makes them ----- unless the authorities have the will and the power to detect and punish wrongdoing.
(A) contested..provisional
(B) circumvented..antiquated
(C) repealed..vulnerable
(D) violated..ineffective
(E) modified..unstable

4. Since she believed him to be both candid and trustworthy, she refused to consider the possibility that his statement had been -----.
(A) irrelevant
(B) facetious
(C) mistaken
(D) critical
(E) insincere
5. Ironically, the party leaders encountered no greater ----- their efforts to build a progressive party than the ----- of the progressives already elected to the legislature.
(A) support for..advocacy
(B) threat to..promise
(C) benefit from..success
(D) obstacle to..resistance
(E) praise for..reputation
6. It is strange how words shape our thoughts and trap us at the bottom of deeply ----- canyons of thinking, their imprisoning sides carved out by the ----- of past usage.
(A) cleaved..eruptions
(B) rooted..flood
(C) incised..river
(D) ridged..ocean
(E) notched..mountains
7. That his intransigence in making decisions ----- no open disagreement from any quarter was well known; thus, clever subordinates learned the art of ----- their opinions in casual remarks.
(A) elicited..quashing
(B) engendered..recasting
(C) brooked..intimating
(D) embodied..instigating
(E) forbore..emending

GO ON TO THE NEXT PAGE.

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. BABBLE : TALK :: (A) chisel : sculpt
(B) harmonize : sing (C) scribble : write
(D) hint : imply (E) quibble : elude
9. SYLLABUS : COURSE :: (A) rules : jury
(B) map : destination (C) recipe : ingredients
(D) appetizer : meal (E) agenda : meeting
10. VARNISH : WOOD ::
(A) etch : glass
(B) tarnish : silver
(C) wax : linoleum
(D) burnish : metal
(E) bleach : fabric
11. PITCH : SOUND :: (A) color : light
(B) mass : weight (C) force : pressure
(D) energy : heat (E) velocity : time
12. DISCOMFITED : BLUSH ::
(A) nonplussed : weep (B) contemptuous : sneer
(C) affronted : blink (D) sullen : groan
(E) aggrieved : gloat

13. INVINCIBLE : SUBDUED ::
(A) inconsistent : expressed
(B) impervious : damaged
(C) imprudent : enacted
(D) bolted : separated
(E) expensive : bought
14. STRIATED : GROOVE ::
(A) adorned : detail
(B) woven : texture
(C) engraved : curve
(D) constructed : design
(E) braided : strand
15. DOGGEREL : VERSE :: (A) burlesque : play
(B) sketch : drawing (C) operetta : symphony
(D) fable : narration (E) limerick : sonnet
16. DROLL : LAUGH :: (A) grisly : flinch
(B) bland : tire (C) shrill : shriek
(D) coy : falter (E) wily : smirk

GO ON TO THE NEXT PAGE.

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.

The transfer of heat and water vapor from the ocean to the air above it depends on a disequilibrium at the interface of the water and the air. Within about a millimeter of the water, air temperature is close to that of the surface water, and the air is nearly saturated with water vapor. But the differences, however small, are crucial, and the disequilibrium is maintained by air near the surface mixing with air higher up, which is typically appreciably cooler and lower in water-vapor content.

The air is mixed by means of turbulence that depends on the wind for its energy. As wind speed increases, so does turbulence, and thus the rate of heat and moisture transfer. Detailed understanding of this phenomenon awaits further study. An interacting—and complicating—phenomenon is wind-to-water transfer of momentum that occurs when waves are formed. When the wind makes waves, it transfers important amounts of energy—energy that is therefore not available to provide turbulence.

17. The primary purpose of the passage is to

- (A) resolve a controversy
- (B) describe a phenomenon
- (C) outline a theory
- (D) confirm research findings
- (E) classify various observations

18. According to the passage, wind over the ocean generally does which of the following?

- I. Causes relatively cool, dry air to come into proximity with the ocean surface.
 - II. Maintains a steady rate of heat and moisture transfer between the ocean and the air.
 - III. Causes frequent changes in the temperature of the water at the ocean's surface.
- (A) I only
 - (B) II only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III

19. It can be inferred from the passage that the author regards current knowledge about heat and moisture transfer from the ocean to air as

- (A) revolutionary
- (B) inconsequential
- (C) outdated
- (D) derivative
- (E) incomplete

20. The passage suggests that if on a certain day the wind were to decrease until there was no wind at all, which of the following would occur?

- (A) The air closest to the ocean surface would become saturated with water vapor.
- (B) The air closest to the ocean surface would be warmer than the water.
- (C) The amount of moisture in the air closest to the ocean surface would decrease.
- (D) The rate of heat and moisture transfer would increase.
- (E) The air closest to the ocean would be at the same temperature as air higher up.

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Extraordinary creative activity has been characterized as revolutionary, flying in the face of what is established and producing not what is acceptable but what will become accepted. According to this formulation, highly creative activity transcends the limits of an existing form and establishes a new principle of organization. However, the idea that extraordinary creativity transcends established limits is misleading when it is applied to the arts, even though it may be valid for the sciences. Differences between highly creative art and highly creative science arise in part from a difference in their goals. For the sciences, a new theory is the goal and end result of the creative act. Innovative science produces new propositions in terms of which diverse phenomena can be related to one another in more coherent ways. Such phenomena as a brilliant diamond or a nesting bird are relegated to the role of data, serving as the means for formulating or testing a new theory. The goal of highly creative art is very different: the phenomenon itself becomes the direct product of the creative act. Shakespeare's *Hamlet* is not a tract about the behavior of indecisive princes or the uses of political power; nor is Picasso's painting *Guernica* primarily a propositional statement about the Spanish Civil War or the evils of fascism. What highly creative artistic activity produces is not a new generalization that transcends established limits, but rather an aesthetic particular. Aesthetic particulars produced by the highly creative artist extend or exploit, in an innovative way, the limits of an existing form, rather than transcend that form.

This is not to deny that a highly creative artist sometimes establishes a new principle of organization in the history of an artistic field; the composer Monteverdi, who created music of the highest aesthetic value, comes to mind. More generally, however, whether or not a composition establishes a new principle in the history of music has little bearing on its aesthetic worth. Because they embody a new principle of organization, some musical works, such as the operas of the Florentine Camerata, are of signal historical importance, but few listeners or musicologists would include these among the great works of music. On the other hand, Mozart's *The Marriage of Figaro* is surely among the masterpieces of music even though its modest innovations are confined to extending existing means. It has been said of Beethoven that he toppled the rules and freed music from the stifling confines of convention. But a close study of his compositions reveals that Beethoven overturned no fundamental rules. Rather, he was an incomparable strategist who exploited limits—the rules, forms, and conventions that he inherited from predecessors such as Haydn and Mozart, Handel and Bach—in strikingly original ways.

21. The author considers a new theory that coherently relates diverse phenomena to one another to be the
 - (A) basis for reaffirming a well-established scientific formulation
 - (B) byproduct of an aesthetic experience
 - (C) tool used by a scientist to discover a new particular
 - (D) synthesis underlying a great work of art
 - (E) result of highly creative scientific activity
22. The author implies that Beethoven's music was strikingly original because Beethoven
 - (A) strove to outdo his predecessors by becoming the first composer to exploit limits
 - (B) fundamentally changed the musical forms of his predecessors by adopting a richly inventive strategy
 - (C) embellished and interwove the melodies of several of the great composers who preceded him
 - (D) manipulated the established conventions of musical composition in a highly innovative fashion
 - (E) attempted to create the illusion of having transcended the musical forms of his predecessors
23. The passage states that the operas of the Florentine Camerata are
 - (A) unjustifiably ignored by musicologists
 - (B) not generally considered to be of high aesthetic value even though they are important in the history of music
 - (C) among those works in which popular historical themes were portrayed in a musical production
 - (D) often inappropriately cited as examples of musical works in which a new principle of organization was introduced
 - (E) minor exceptions to the well-established generalization that the aesthetic worth of a composition determines its importance in the history of music

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24. The passage supplies information for answering all of the following questions EXCEPT:
- (A) Has unusual creative activity been characterized as revolutionary?
 - (B) Did Beethoven work within a musical tradition that also included Handel and Bach?
 - (C) Is Mozart's *The Marriage of Figaro* an example of a creative work that transcended limits?
 - (D) Who besides Monteverdi wrote music that the author would consider to embody new principles of organization and to be of high aesthetic value?
 - (E) Does anyone claim that the goal of extraordinary creative activity in the arts differs from that of extraordinary creative activity in the sciences?
25. The author regards the idea that all highly creative artistic activity transcends limits with
- (A) deep skepticism
 - (B) strong indignation
 - (C) marked indifference
 - (D) moderate amusement
 - (E) sharp derision
26. The author implies that an innovative scientific contribution is one that
- (A) is cited with high frequency in the publications of other scientists
 - (B) is accepted immediately by the scientific community
 - (C) does not relegate particulars to the role of data
 - (D) presents the discovery of a new scientific fact
 - (E) introduces a new valid generalization
27. Which of the following statements would most logically conclude the last paragraph of the passage?
- (A) Unlike Beethoven, however, even the greatest of modern composers, such as Stravinsky, did not transcend existing musical forms.
 - (B) In similar fashion, existing musical forms were even further exploited by the next generation of great European composers.
 - (C) Thus, many of the great composers displayed the same combination of talents exhibited by Monteverdi.
 - (D) By contrast, the view that creativity in the arts exploits but does not transcend limits is supported in the field of literature.
 - (E) Actually, Beethoven's most original works were largely unappreciated at the time that they were first performed.

GO ON TO THE NEXT PAGE.

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. BRILLIANCE: (A) dullness (B) emptiness
(C) awkwardness (D) state of immobility
(E) excess of information
29. QUANDARY:
(A) state of suppressed enmity
(B) state of complete certainty
(C) state of mild hysteria
(D) state of unprovoked anger
(E) state of feeble opposition
30. AGGREGATE:
(A) altered plans
(B) intended actions
(C) unexplained occurrences
(D) isolated units
(E) unfounded conclusions
31. SUBSTANTIATION: (A) disproof (B) dissent
(C) delusion (D) debate (E) denial

32. IMPUDENT: (A) compelling (B) mature
(C) respectful (D) thorough (E) deliberate
33. RECANT: (A) propose (B) respond
(C) instruct (D) affirm (E) disclose
34. DIVEST: (A) multiply (B) initiate
(C) triumph (D) persist (E) endow
35. BANALITY:
(A) accurate portrayal
(B) impromptu statement
(C) original expression
(D) succinct interpretation
(E) elaborate critique
36. UBIQUITOUS: (A) uniform (B) unanimous
(C) unique (D) anachronistic (E) mediocre
37. ESCHEW: (A) invest (B) consume
(C) maintain (D) condemn (E) seek
38. BELIE: (A) flaunt (B) distend
(C) attune (D) obviate (E) aver

FOR GENERAL TEST 24 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 1			Section 2			Section 3			Section 4			Section 5			Section 6		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	C	90	1	E	91	1	A	95	1	D	83	1	A	94	1	B	74
2	D	85	2	E	91	2	C	87	2	B	86	2	D	76	2	A	79
3	B	63	3	D	89	3	A	89	3	D	93	3	D	68	3	B	86
4	E	58	4	E	66	4	B	90	4	C	83	4	C	90	4	B	82
5	D	49	5	D	57	5	D	85	5	A	80	5	E	72	5	C	60
6	A	45	6	C	53	6	B	92	6	A	82	6	B	72	6	E	84
7	B	25	7	C	26	7	A	71	7	D	76	7	B	76	7	D	75
8	B	83	8	C	91	8	B	76	8	B	73	8	B	58	8	B	69
9	C	82	9	E	85	9	A	64	9	A	62	9	D	60	9	C	61
10	D	67	10	C	75	10	C	63	10	B	66	10	A	68	10	C	59
11	E	56	11	A	55	11	D	57	11	C	54	11	C	68	11	A	76
12	D	52	12	B	47	12	A	65	12	A	47	12	C	65	12	C	59
13	B	46	13	B	59	13	C	49	13	D	52	13	B	56	13	A	61
14	B	34	14	E	50	14	B	41	14	A	33	14	E	55	14	C	50
15	A	33	15	A	24	15	D	49	15	C	23	15	A	57	15	D	31
16	E	19	16	A	22	16	E	88	16	D	93	16	C	54	16	A	66
17	D	82	17	B	83	17	C	79	17	A	87	17	D	48	17	A	49
18	B	67	18	A	33	18	A	82	18	E	89	18	A	34	18	E	67
19	E	82	19	E	81	19	C	77	19	E	63	19	E	34	19	E	40
20	E	41	20	A	55	20	E	73	20	C	79	20	E	42	20	A	54
21	C	78	21	E	48	21	D	86	21	A	87	21	A	32	21	E	37
22	A	63	22	D	53	22	C	81	22	E	76	22	E	20	22	E	50
23	D	73	23	B	74	23	C	48	23	B	52	23	D	49	23	D	57
24	A	29	24	D	45	24	A	29	24	B	73	24	B	55	24	D	43
25	E	40	25	A	36	25	E	37	25	C	43	25	D	33	25	B	43
26	D	52	26	E	46	26	B	64	26	E	52						
27	B	50	27	B	49	27	E	54	27	A	42						
28	D	87	28	A	91	28	D	51	28	B	36						
29	C	85	29	B	78	29	B	40	29	A	48						
30	E	77	30	D	73	30	D	18	30	D	37						
31	D	70	31	A	75												
32	D	54	32	C	67												
33	E	58	33	D	53												
34	A	44	34	E	47												
35	D	32	35	C	45												
36	E	43	36	C	37												
37	A	25	37	E	18												
38	C	17	38	E	16												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. Hydrogen is the —— element of the universe in that it provides the building blocks from which the other elements are produced.
 (A) steadiest (B) expendable (C) lightest
 (D) final (E) fundamental
2. Few of us take the pains to study our cherished convictions; indeed, we almost have a natural —— doing so.
 (A) aptitude for (B) repugnance to
 (C) interest in (D) ignorance of
 (E) reaction after
3. It is his dubious distinction to have proved what nobody would think of denying, that Romero at the age of sixty-four writes with all the characteristics of ——.
 (A) maturity (B) fiction
 (C) inventiveness (D) art
 (E) brilliance
4. The primary criterion for —— a school is its recent performance: critics are —— to extend credit for earlier victories.
 (A) evaluating..prone
 (B) investigating..hesitant
 (C) judging..reluctant
 (D) improving..eager
 (E) administering..persuaded

5. Number theory is rich in problems of an especially —— sort: they are tantalizingly simple to state but —— difficult to solve.

- (A) cryptic..deceptively
- (B) spurious..equally
- (C) abstruse..ostensibly
- (D) elegant..rarely
- (E) vexing..notoriously

6. In failing to see that the justice's pronouncement merely —— previous decisions rather than actually establishing a precedent, the novice law clerk —— the scope of the justice's judgment.

- (A) synthesized..limited
- (B) overturned..misunderstood
- (C) endorsed..nullified
- (D) qualified..overemphasized
- (E) recapitulated..defined

7. When theories formerly considered to be —— in their scientific objectivity are found instead to reflect a consistent observational and evaluative bias, then the presumed neutrality of science gives way to the recognition that categories of knowledge are human ——.

- (A) disinterested..constructions
- (B) callous..errors
- (C) verifiable..prejudices
- (D) convincing..imperatives
- (E) unassailable..fantasies

GO ON TO THE NEXT PAGE.

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. CHOIR:SINGER ::

- (A) election:voter
- (B) anthology:poet
- (C) cast:actor
- (D) orchestra:composer
- (E) convention:speaker

9. GLARING:BRIGHT ::

- (A) iridescent:colorful
- (B) perceptible:visible
- (C) discordant:harmonious
- (D) peppery:salty
- (E) deafening:loud

10. MAVERICK:CONFORMITY ::

- (A) renegade:ambition
- (B) extrovert:reserve
- (C) reprobate:humility
- (D) zealot:loyalty
- (E) strategist:decisiveness

11. SLITHER:SNAKE :: (A) perch:eagle

- (B) bask:lizard
- (C) waddle:duck
- (D) circle:hawk
- (E) croak:frog

12. COUNTENANCE:TOLERATION ::

- (A) defer:ignorance
- (B) renounce:mistrust
- (C) encroach:jealousy
- (D) demur:objection
- (E) reject:disappointment

13. PROCTOR:SUPERVISE ::

- (A) prophet:rule
- (B) profiteer:consume
- (C) profligate:demand
- (D) prodigal:squander
- (E) prodigy:wonder

14. REDOLENT:SMELL ::

- (A) curious:knowledge
- (B) lucid:sight
- (C) torpid:motion
- (D) ephemeral:touch
- (E) piquant:taste

* 15. TORQUE:ROTATION ::

- (A) centrifuge:axis
- (B) osmosis:membrane
- (C) tension:elongation
- (D) elasticity:variation
- (E) gas:propulsion

16. SUBSIDY:SUPPORT ::

- (A) assistance:endowment
- (B) funds:fellowship
- (C) credit:payment
- (D) debt:obligation
- (E) loan:note

GO ON TO THE NEXT PAGE.

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.

* By the time the American colonists took up arms against Great Britain in order to secure their independence, the institution of Black slavery was deeply entrenched. But the contradiction inherent in this situation was, for many, a source of constant embarrassment. "It always appeared a most iniquitous scheme to me," Abigail Adams wrote her husband in 1774, "to fight ourselves for what we are daily robbing and plundering from those who have as good a right to freedom as we have."

Many Americans besides Abigail Adams were struck by the inconsistency of their stand during the War of Independence, and they were not averse to making moves to emancipate the slaves. Quakers and other religious groups organized antislavery societies, while numerous individuals manumitted their slaves. In fact, within several years of the end of the War of Independence, most of the Eastern states had made provisions for the gradual emancipation of slaves.

- * 17. Which of the following best states the central idea of the passage?
- (A) The War of Independence produced among many Black Americans a heightened consciousness of the inequities in American society.
 - (B) The War of Independence strengthened the bonds of slavery of many Black Americans while intensifying their desire to be free.
 - (C) The War of Independence exposed to many Americans the contradiction of slavery in a country seeking its freedom and resulted in efforts to resolve that contradiction.
 - (D) The War of Independence provoked strong criticisms by many Americans of the institution of slavery, but produced little substantive action against it.
 - (E) The War of Independence renewed the efforts of many American groups toward achieving Black emancipation.
18. The passage contains information that would support which of the following statements about the colonies before the War of Independence?
- (A) They contained organized antislavery societies.
 - (B) They allowed individuals to own slaves.
 - (C) They prohibited religious groups from political action.
 - (D) They were inconsistent in their legal definitions of slave status.
 - (E) They encouraged abolitionist societies to expand their influence.

* 19. According to the passage, the War of Independence was embarrassing to some Americans for which of the following reasons?

- I. It involved a struggle for many of the same liberties that Americans were denying to others.
 - II. It involved a struggle for independence from the very nation that had founded the colonies.
 - III. It involved a struggle based on inconsistencies in the participants' conceptions of freedom.
- (A) I only
 - (B) II only
 - (C) I and II only
 - (D) I and III only
 - (E) I, II, and III

* 20. Which of the following statements regarding American society in the years immediately following the War of Independence is best supported by the passage?

- (A) The unexpected successes of the anti-slavery societies led to their gradual demise in the Eastern states.
- (B) Some of the newly independent American states had begun to make progress toward abolishing slavery.
- (C) Americans like Abigail Adams became disillusioned with the slow progress of emancipation and gradually abandoned the cause.
- (D) Emancipated slaves gradually were accepted in the Eastern states as equal members of American society.
- (E) The abolition of slavery in many Eastern states was the result of close cooperation between religious groups and free Blacks.

GO ON TO THE NEXT PAGE.

The evolution of sex ratios has produced, in most plants and animals with separate sexes, approximately equal numbers of males and females. Why should this be so? Two main kinds of answers have been offered. One is couched in terms of advantage to population. It is argued that the sex ratio will evolve so as to maximize the number of meetings between individuals of the opposite sex. This is essentially a "group selection" argument. The other, and in my view correct, type of answer was first put forward by Fisher in 1930. This "genetic" argument starts from the assumption that genes can influence the relative numbers of male and female offspring produced by an individual carrying the genes. That sex ratio will be favored which maximizes the number of descendants an individual will have and hence the number of gene copies transmitted. Suppose that the population consisted mostly of females: then an individual who produced sons only would have more grandchildren. In contrast, if the population consisted mostly of males, it would pay to have daughters. If, however, the population consisted of equal numbers of males and females, sons and daughters would be equally valuable. Thus a one-to-one sex ratio is the only stable ratio; it is an "evolutionarily stable strategy." Although Fisher wrote before the mathematical theory of games had been developed, his theory incorporates the essential feature of a game—that the best strategy to adopt depends on what others are doing.

Since Fisher's time, it has been realized that genes can sometimes influence the chromosome or gamete in which they find themselves so that the gamete will be more likely to participate in fertilization. If such a gene occurs on a sex-determining (X or Y) chromosome, then highly aberrant sex ratios can occur. But more immediately relevant to game theory are the sex ratios in certain parasitic wasp species that have a large excess of females. In these species, fertilized eggs develop into females and unfertilized eggs into males. A female stores sperm and can determine the sex of each egg she lays by fertilizing it or leaving it unfertilized. By Fisher's argument, it should still pay a female to produce equal numbers of sons and daughters. Hamilton, noting that the eggs develop within their host—the larva of another insect—and that the newly emerged adult wasps mate immediately and disperse, offered a remarkably cogent analysis. Since only one female usually lays eggs in a given larva, it would pay her to produce one male only, because this one male could fertilize all his sisters on emergence. Like Fisher, Hamilton looked for an evolutionarily stable strategy, but he went a step further in recognizing that he was looking for a strategy.

21. The author suggests that the work of Fisher and Hamilton was similar in that both scientists
 - (A) conducted their research at approximately the same time
 - (B) sought to manipulate the sex ratios of some of the animals they studied
 - (C) sought an explanation of why certain sex ratios exist and remain stable
 - (D) studied game theory, thereby providing important groundwork for the later development of strategy theory
 - (E) studied reproduction in the same animal species

22. It can be inferred from the passage that the author considers Fisher's work to be
 - (A) fallacious and unprofessional
 - (B) definitive and thorough
 - (C) inaccurate but popular, compared with Hamilton's work
 - (D) admirable, but not as up-to-date as Hamilton's work
 - (E) accurate, but trivial compared with Hamilton's work

23. The passage contains information that would answer which of the following questions about wasps?
 - I. How many eggs does the female wasp usually lay in a single host larva?
 - II. Can some species of wasp determine sex ratios among their offspring?
 - III. What is the approximate sex ratio among the offspring of parasitic wasps?
 - (A) I only (B) II only (C) III only
 - (D) I and II only (E) II and III only

24. It can be inferred that the author discusses the genetic theory in greater detail than the group selection theory primarily because he believes that the genetic theory is more
 - (A) complicated (B) accurate (C) popular
 - (D) comprehensive (E) accessible

GO ON TO THE NEXT PAGE.

25. According to the passage, successful game strategy depends on
- (A) the ability to adjust one's behavior in light of the behavior of others
 - (B) one's awareness that there is safety in numbers
 - (C) the degree of stability one can create in one's immediate environment
 - (D) the accuracy with which one can predict future events
 - (E) the success one achieves in conserving and storing one's resources
26. It can be inferred from the passage that the mathematical theory of games has been
- (A) developed by scientists with an interest in genetics
 - (B) adopted by Hamilton in his research
 - (C) helpful in explaining how genes can sometimes influence gametes
 - (D) based on animal studies conducted prior to 1930
 - (E) useful in explaining some biological phenomena
27. Which of the following is NOT true of the species of parasitic wasps discussed in the passage?
- (A) Adult female wasps are capable of storing sperm.
 - (B) Female wasps lay their eggs in the larvae of other insects.
 - (C) The adult female wasp can be fertilized by a male that was hatched in the same larva as herself.
 - (D) So few male wasps are produced that extinction is almost certain.
 - (E) Male wasps do not emerge from their hosts until they reach sexual maturity.

GO ON TO THE NEXT PAGE.

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. COMMOTION: (A) desirability
(B) likability (C) propensity
(D) changeability (E) tranquillity
29. INDETERMINATE: (A) qualified
(B) definite (C) stubborn
(D) effective (E) committed
30. DIVERGE: (A) relay (B) bypass
(C) enclose (D) work quickly
(E) come together
31. FLIPPANT: (A) evenly distributed
(B) well coordinated (C) inflexible
(D) sane (E) earnest
32. NEXUS: (A) disconnected components
(B) tangled threads (C) lost direction
(D) unseen obstacle (E) damaged parts
33. LEVY: (A) reconsider (B) relinquish
(C) repatriate (D) revitalize (E) rescind
34. ANOMALOUS: (A) porous (B) viscous
(C) essential (D) normal (E) elemental
35. GROUSE: (A) rejoice (B) rekindle
(C) restore (D) reject (E) reflect
36. GIST:
(A) tangential point
(B) tentative explanation
(C) faulty assumption
(D) flawed argument
(E) meaningless distinction
37. EFFRONTRY: (A) decorum (B) candor
(C) resolution (D) perplexity
(E) mediation
38. LIMPID: (A) rampant (B) vapid
(C) turbid (D) rigid (E) resilient

SECTION 5

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. Although the minuet appeared simple, its —— steps had to be studied very carefully before they could be gracefully —— in public.
(A) progressive..revealed
(B) intricate..executed
(C) rudimentary..allowed
(D) minute..discussed
(E) entertaining..stylized
2. The results of the experiments performed by Elizabeth Hazen and Rachel Brown were —— not only because these results challenged old assumptions but also because they called the —— methodology into question.
(A) provocative..prevailing
(B) predictable..contemporary
(C) inconclusive..traditional
(D) intriguing..projected
(E) specious..original
3. Despite the —— of many of their colleagues, some scholars have begun to emphasize "pop culture" as a key for —— the myths, hopes, and fears of contemporary society.
(A) antipathy..entangling
(B) discernment..evaluating
(C) pedantry..reinstating
(D) skepticism..deciphering
(E) enthusiasm..symbolizing
4. In the seventeenth century, direct flouting of a generally accepted system of values was regarded as ——, even as a sign of madness.
(A) adventurous (B) frivolous
(C) willful (D) impermissible
(E) irrational
5. Queen Elizabeth I has quite correctly been called a —— of the arts, because many young artists received her patronage.
(A) connoisseur (B) critic (C) friend
(D) scourge (E) judge
6. Because outlaws were denied —— under medieval law, anyone could raise a hand against them with legal ——.
(A) propriety..authority
(B) protection..impunity
(C) collusion..consent
(D) rights..collaboration
(E) provisions..validity
7. Rather than enhancing a country's security, the successful development of nuclear weapons could serve at first to increase that country's ——.
(A) boldness (B) influence
(C) responsibility (D) moderation
(E) vulnerability

GO ON TO THE NEXT PAGE.

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. WATER:SWIM :: (A) grass:grow
(B) knot:tie (C) plan:implement
(D) flood:damage (E) snow:ski

9. TILE:MOSAIC :: (A) wood:totem
(B) stitch:sampler (C) ink:scroll
(D) pedestal:column (E) tapestry:rug

10. SCHOOL:FISH :: (A) posse:crowd
(B) arrow:feathers (C) union:labor
(D) flock:birds (E) stock:cattle

11. CASTIGATION:DISAPPROVAL ::
(A) grief:indignation
(B) hostility:intention
(C) hope:insight
(D) innocence:patience
(E) blasphemy:irreverence

12. REDOUBTABLE:AWE ::
(A) tart:pungency
(B) tacit:solitude
(C) despicable:contempt
(D) engrossing:obliviousness
(E) venerable:renown

13. ACCELERATE:SPEED ::

- (A) assess:value
(B) elaborate:quality
(C) disperse:strength
(D) prolong:duration
(E) enumerate:quantity

14. COMPLAIN:CARP :: (A) supply:donate
(B) argue:debate (C) grumble:accuse
(D) drink:guzzle (E) pacify:intervene

15. FILIGREE:WIRE :: (A) embroidery:knot
(B) bead:string (C) lace:thread
(D) fringe:yarn (E) rope:strand

16. SKIRMISH:INSIGNIFICANCE ::

- (A) revolution:democracy
(B) duel:formality
(C) feud:impartiality
(D) bout:sparring
(E) crusade:remoteness

GO ON TO THE NEXT PAGE.

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.

- Thomas Hardy's impulses as a writer, all of which he indulged in his novels, were numerous and divergent, and they did not always work together in harmony. Hardy was to some degree interested in exploring his characters' psychologies, though impelled less by curiosity than by sympathy. Occasionally he felt the impulse to comedy (in all its detached coldness) as well as the impulse to farce, but he was more often inclined to see tragedy and record it. He was also inclined to literary realism in the several senses of that phrase. He wanted to describe ordinary human beings; he wanted to speculate on their dilemmas rationally (and, unfortunately, even schematically); and he wanted to record precisely the material universe. Finally, he wanted to be more than a realist. He wanted to transcend what he considered to be the banality of solely recording things exactly and to express as well his awareness of the occult and the strange.
- In his novels these various impulses were sacrificed to each other inevitably and often. Inevitably, because Hardy did not care in the way that novelists such as Flaubert or James cared, and therefore took paths of least resistance. Thus, one impulse often surrendered to a fresher one and, unfortunately, instead of exacting a compromise, simply disappeared.
- A desire to throw over reality a light that never was might give way abruptly to the desire on the part of what we might consider a novelist-scientist to record exactly and concretely the structure and texture of a flower. In this instance, the new impulse was at least an energetic one, and thus its indulgence did not result in a relaxed style. But on other occasions Hardy abandoned a perilous, risky, and highly energizing impulse in favor of what was for him the fatally relaxing impulse to classify and schematize abstractly. When a relaxing impulse was indulged, the style—that sure index of an author's literary worth—was certain to become verbose. Hardy's weakness derived from his apparent inability to control the comings and goings of these divergent impulses and from his unwillingness to cultivate and sustain the energetic and risky ones. He submitted to first one and then another, and the spirit blew where it listed; hence the unevenness of any one of his novels. His most controlled novel, *Under the Greenwood Tree*, prominently exhibits two different but reconcilable impulses—a desire to be a realist-historian and a desire to be a psychologist of love—but the slight interlockings of plot are not enough to bind the two completely together. Thus even this book splits into two distinct parts.

17. Which of the following is the most appropriate title for the passage, based on its content?
- (A) *Under the Greenwood Tree*: Hardy's Ambiguous Triumph
(B) The Real and the Strange: The Novelist's Shifting Realms
(C) Energy Versus Repose: The Role of Ordinary People in Hardy's Fiction
(D) Hardy's Novelistic Impulses: The Problem of Control
(E) Divergent Impulses: The Issue of Unity in the Novel
18. The passage suggests that the author would be most likely to agree with which of the following statements about literary realism?
- (A) Literary realism is most concerned with the exploration of the internal lives of ordinary human beings.
(B) The term "literary realism" is susceptible to more than a single definition.
(C) Literary realism and an interest in psychology are likely to be at odds in a novelist's work.
(D) "Literary realism" is the term most often used by critics in describing the method of Hardy's novels.
(E) A propensity toward literary realism is a less interesting novelistic impulse than is an interest in the occult and the strange.
19. The author of the passage considers a writer's style to be
- (A) a reliable means by which to measure the writer's literary merit
(B) most apparent in those parts of the writer's work that are not realistic
(C) problematic when the writer attempts to follow perilous or risky impulses
(D) shaped primarily by the writer's desire to classify and schematize
(E) the most accurate index of the writer's literary reputation

GO ON TO THE NEXT PAGE.

20. Which of the following words could best be substituted for "relaxed" (line 37) without substantially changing the author's meaning?
- (A) informal
(B) confined
(C) risky
(D) wordy
(E) metaphoric
21. The passage supplies information to suggest that its author would be most likely to agree with which of the following statements about the novelists Flaubert and James?
- (A) They indulged more impulses in their novels than did Hardy in his novels.
(B) They have elicited a greater degree of favorable response from most literary critics than has Hardy.
(C) In the writing of their novels, they often took pains to effect a compromise among their various novelistic impulses.
(D) Regarding novelistic construction, they cared more about the opinions of other novelists than about the opinions of ordinary readers.
(E) They wrote novels in which the impulse toward realism and the impulse away from realism were evident in equal measure.
22. Which of the following statements best describes the organization of lines 27 to 41 of the passage ("Thus . . . abstractly")?
- (A) The author makes a disapproving observation and then presents two cases, one of which leads to a qualification of his disapproval and the other of which does not.
(B) The author draws a conclusion from a previous statement, explains his conclusion in detail, and then gives a series of examples that have the effect of resolving an inconsistency.
(C) The author concedes a point and then makes a counterargument, using an extended comparison and contrast that qualifies his original concession.
(D) The author makes a judgment, points out an exception to his judgment, and then contradicts his original assertion.
(E) The author summarizes and explains an argument and then advances a brief history of opposing arguments.
23. Which of the following statements about the use of comedy in Hardy's novels is best supported by the passage?
- (A) Hardy's use of comedy in his novels tended to weaken his literary style.
(B) Hardy's use of comedy in his novels was inspired by his natural sympathy.
(C) Comedy appeared less frequently in Hardy's novels than did tragedy.
(D) Comedy played an important role in Hardy's novels though that comedy was usually in the form of farce.
(E) Comedy played a secondary role in Hardy's more controlled novels only.
24. The author implies which of the following about *Under the Greenwood Tree* in relation to Hardy's other novels?
- (A) It is Hardy's most thorough investigation of the psychology of love.
(B) Although it is his most controlled novel, it does not exhibit any harsh or risky impulses.
(C) It, more than his other novels, reveals Hardy as a realist interested in the history of ordinary human beings.
(D) In it Hardy's novelistic impulses are managed somewhat better than in his other novels.
(E) Its plot, like the plots of all of Hardy's other novels, splits into two distinct parts.

GO ON TO THE NEXT PAGE.

Upwards of a billion stars in our galaxy have burnt up their internal energy sources, and so can no longer produce the heat a star needs to oppose the inward force of gravity. These stars, of more than a few solar masses, evolve, in general, much more rapidly than does a star like the Sun. Moreover, it is just these more massive stars whose collapse does not halt at intermediate stages (that is, as white dwarfs or neutron stars). Instead, the collapse continues until a singularity (an infinitely dense concentration of matter) is reached.

It would be wonderful to observe a singularity and obtain direct evidence of the undoubtedly bizarre phenomena that occur near one. Unfortunately in most cases a distant observer cannot see the singularity; outgoing light rays are dragged back by gravity so forcefully that even if they could start out within a few kilometers of the singularity, they would end up in the singularity itself.

25. The author's primary purpose in the passage is to
- (A) describe the formation and nature of singularities
 - (B) explain why large numbers of stars become singularities
 - (C) compare the characteristics of singularities with those of stars
 - (D) explain what happens during the stages of a singularity's formation
 - (E) imply that singularities could be more easily studied if observers could get closer to them

26. The passage suggests which of the following about the Sun?

- I. The Sun could evolve to a stage of collapse that is less dense than a singularity.
 - II. In the Sun, the inward force of gravity is balanced by the generation of heat.
 - III. The Sun emits more observable light than does a white dwarf or a neutron star.
- (A) I only
 - (B) III only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III

27. Which of the following sentences would most probably follow the last sentence of the passage?

- (A) Thus, a physicist interested in studying phenomena near singularities would necessarily hope to find a singularity with a measurable gravitational field.
- (B) Accordingly, physicists to date have been unable to observe directly any singularity.
- (C) It is specifically this startling phenomenon that has allowed us to codify the scant information currently available about singularities.
- (D) Moreover, the existence of this extraordinary phenomenon is implied in the extensive reports of several physicists.
- (E) Although unanticipated, phenomena such as these are consistent with the structure of a singularity.

GO ON TO THE NEXT PAGE.

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. STABILIZE: (A) penetrate
(B) minimize (C) fluctuate
(D) analyze (E) isolate

29. RENOVATE: (A) design to specifications
(B) keep hidden (C) cause to decay
(D) duplicate (E) complicate

30. PROFUSE: (A) sequential (B) shoddy
(C) scant (D) surly (E) supreme

31. ANCHOR: (A) unwind (B) unbend
(C) disjoin (D) disrupt (E) dislodge

32. REFUTE: (A) reveal (B) associate
(C) recognize (D) understand (E) prove

33. NADIR:
(A) immobile object
(B) uniform measurement
(C) extreme distance
(D) topmost point
(E) regular phenomenon

34. APPROBATION: (A) disinclination
(B) stagnation (C) condemnation
(D) false allegation (E) immediate repulsion

35. FATUOUSNESS: (A) sensibleness
(B) courage (C) obedience
(D) aloofness (E) forcefulness

36. TIMOROUS: (A) consummate (B) faithful
(C) intrepid (D) antagonistic
(E) impulsive

37. SEMINAL:
(A) withholding peripheral information
(B) promoting spirited exchange
(C) suggesting contradictory hypotheses
(D) displaying cultural biases
(E) hampering further development

38. DISINGENUOUSNESS:
(A) coherent thought
(B) polite conversation
(C) acquisitiveness
(D) guilelessness
(E) contentiousness

FOR GENERAL TEST 25 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY						QUANTITATIVE ABILITY						ANALYTICAL ABILITY					
Section 2			Section 5			Section 1			Section 4			Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+	Number	Answer	P+
1	E	89	1	B	80	1	C	84	1	C	89	1	B	82	1	D	68
2	B	66	2	A	69	2	B	87	2	B	90	2	A	75	2	B	92
3	A	52	3	D	76	3	A	90	3	D	98	3	C	89	3	D	85
4	C	58	4	E	57	4	C	75	4	B	90	4	B	31	4	E	74
5	E	51	5	C	84	5	C	76	5	A	81	5	C	47	5	B	76
6	D	45	6	B	59	6	B	69	6	C	83	6	D	58	6	C	88
7	A	10	7	E	66	7	D	65	7	A	85	7	E	46	7	E	66
8	C	82	8	E	96	8	C	53	8	B	71	8	B	88	8	A	82
9	E	80	9	B	41	9	A	69	9	D	61	9	D	86	9	D	69
10	B	61	10	D	87	10	C	53	10	A	77	10	A	53	10	C	83
11	C	82	11	E	67	11	D	34	11	A	56	11	E	76	11	E	70
12	D	36	12	C	38	12	B	59	12	C	42	12	B	42	12	D	80
13	D	35	13	D	53	13	A	42	13	D	42	13	C	51	13	B	33
14	E	48	14	D	33	14	A	35	14	B	49	14	A	56	14	C	31
15	C	46	15	C	37	15	D	33	15	C	31	15	E	76	15	A	16
16	D	23	16	B	25	16	A	88	16	D	96	16	A	26	16	E	49
17	C	89	17	D	70	17	E	85	17	C	82	17	C	75	17	D	52
18	B	77	18	B	44	18	S	82	18	B	77	18	E	28	18	C	34
19	A	21	19	A	36	19	D	83	19	E	71	19	A	35	19	E	33
20	B	69	20	D	19	20	C	75	20	A	69	20	E	20	20	D	23
21	C	80	21	C	71	21	D	94	21	B	92	21	B	23	21	A	20
22	D	62	22	A	30	22	B	89	22	C	57	22	C	41	22	B	31
23	B	43	23	C	66	23	C	66	23	B	51	23	E	21	23	A	50
24	B	64	24	D	47	24	A	48	24	C	34	24	C	37	24	D	31
25	A	59	25	A	49	25	C	44	25	D	28	25	D	24	25	C	20
26	E	42	26	C	33	26	B	52	26	A	52						
27	D	66	27	B	60	27	B	50	27	E	62						
28	E	86	28	C	94	28	D	30	28	A	51						
29	B	82	29	C	85	29	A	26	29	D	46						
30	E	81	30	C	72	30	E	44	30	C	47						
31	E	51	31	E	79												
32	A	44	32	E	59												
33	E	52	33	D	43												
34	D	49	34	C	45												
35	A	46	35	A	41												
36	A	27	36	C	34												
37	A	28	37	E	27												
38	C	23	38	D	24												

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

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. The Chinese, who began systematic astronomical and weather observations shortly after the ancient Egyptians, were assiduous record-keepers, and because of this, can claim humanity's longest continuous _____ of natural events.

- (A) defiance (B) documentation
(C) maintenance (D) theory (E) domination

2. Because many of the minerals found on the ocean floor are still _____ on land, where mining is relatively inexpensive, mining the ocean floor has yet to become a _____ enterprise.

- (A) scarce..common
(B) accessible..marginal
(C) unidentified..subsidized
(D) conserved..public
(E) plentiful..profitable

3. The valedictory address, as it has developed in American colleges and universities over the years, has become a very strict form, a literary _____ that permits very little _____.

- (A) text..clarity
(B) work..tradition
(C) genre..deviation
(D) oration..grandiloquence
(E) achievement..rigidity

4. A human being is quite _____ creature, for the gloss of rationality that covers his or her fears and _____ is thin and often easily breached.

- (A) a logical..problems
(B) a frail..insecurity
(C) a valiant..phobias
(D) an ambitious..morality
(E) a ludicrous..laughter

5. Although the passage of years has softened the initially hostile reaction to his poetry, even now only a few independent observers _____ his works.

- (A) praise (B) revile (C) scrutinize
(D) criticize (E) neglect

6. Unlike philosophers who constructed theoretically ideal states, she built a theory based on _____; thus, although her constructs may have been inelegant, they were _____ sound.

- (A) reality..aesthetically
(B) intuition..intellectually
(C) surmise..scientifically
(D) experience..empirically
(E) conjecture..factually

7. Once a duckling has identified a parent, the instinctive bond becomes a powerful _____ for additional learning since, by _____ the parent, the duckling can acquire further information that is not genetically transmitted.

- (A) impulse..surpassing
(B) referent..recognizing
(C) force..acknowledging
(D) inspiration..emulating
(E) channel..mimicking

GO ON TO THE NEXT PAGE.

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. INFLATE : BURST ::

- (A) atrophy : evaporate
- (B) pull : tear
- (C) expose : hide
- (D) excavate : increase
- (E) break : shatter

9. FLIP : RESPECT ::

- (A) curt : ignorance
- (B) bleak : firmness
- (C) wry : humor
- (D) nonchalant : concern
- (E) rash : promptness

10. REQUEST : COMMAND ::

- (A) propose : stipulate
- (B) enlist : support
- (C) relegate : consign
- (D) volunteer : accept
- (E) select : reject

11. BOUNDLESS : LIMIT ::

- (A) truncated : length
- (B) voracious : appetite
- (C) impeccable : flaw
- (D) fascinating : interest
- (E) syncopated : beat

12. MOLT : BIRD ::

- (A) slough : snake
- (B) hibernate : bear
- (C) metamorphose : spider
- (D) shuck : oyster
- (E) hatch : egg

13. RENOUNCE : PLEDGE ::

- (A) exculpate : victim
- (B) desecrate : shrine
- (C) remonstrate : hero
- (D) redeem : honor
- (E) rescind : order

14. COWARD : CRAVEN ::

- (A) liar : facetious
- (B) dupe : gullible
- (C) commentator : caustic
- (D) judge : impartial
- (E) criminal : hostile

15. ENFRANCHISE : VOTE ::

- (A) advertise : sell
- (B) fumigate : kill
- (C) filter : purify
- (D) illuminate : see
- (E) ignite : burn

16. STRUT : WING ::

- (A) beam : door
- (B) axle : wheel
- (C) guy : pylon
- (D) root : plant
- (E) twig : branch

GO ON TO THE NEXT PAGE.

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.

As Gilbert White, Darwin, and others observed long ago, all species appear to have the innate capacity to increase their numbers from generation to generation. The task for ecologists is to untangle the environmental and biological factors that hold this intrinsic capacity for population growth in check over the long run. The great variety of dynamic behaviors exhibited by different populations makes this task more difficult: some populations remain roughly constant from year to year; others exhibit regular cycles of abundance and scarcity; still others vary wildly, with outbreaks and crashes that are in some cases plainly correlated with the weather, and in other cases not.

To impose some order on this kaleidoscope of patterns, one school of thought proposes dividing populations into two groups. These ecologists posit that the relatively steady populations have "density-dependent" growth parameters; that is, rates of birth, death, and migration which depend strongly on population density. The highly varying populations have "density-independent" growth parameters, with vital rates buffered by environmental events; these rates fluctuate in a way that is wholly independent of population density.

This dichotomy has its uses, but it can cause problems if taken too literally. For one thing, no population can be driven entirely by density-independent factors all the time. No matter how severely or unpredictably birth, death, and migration rates may be fluctuating around their long-term averages, if there were no density-dependent effects, the population would, in the long run, either increase or decrease without bound (barring a miracle by which gains and losses canceled exactly). Put another way, it may be that on average 99 percent of all deaths in a population arise from density-independent causes, and only one percent from factors varying with density. The factors making up the one percent may seem unimportant, and their cause may be correspondingly hard to determine. Yet, whether recognized or not, they will usually determine the long-term average population density.

In order to understand the nature of the ecologist's investigation, we may think of the density-dependent effects on growth parameters as the "signal" ecologists are trying to isolate and interpret, one that tends to make the population increase from relatively low values or decrease from relatively high ones, while the density-independent effects act to produce "noise" in the population dynamics. For populations that remain relatively constant, or that oscillate around repeated cycles, the signal can be fairly easily characterized and its effects described, even though the causative biological mechanism may remain unknown. For irregularly fluctuating populations, we are likely to have too few observations to have any hope of extracting the signal from the overwhelming noise. But it now seems clear that all populations are regulated by a mixture of density-dependent and density-independent effects in varying proportions.

- Line
(5) 17. The author of the passage is primarily concerned with
(A) discussing two categories of factors that control population growth and assessing their relative importance
(B) describing how growth rates in natural populations fluctuate over time and explaining why these changes occur
(C) proposing a hypothesis concerning population sizes and suggesting ways to test it
(D) posing a fundamental question about environmental factors in population growth and presenting some currently accepted answers
(E) refuting a commonly accepted theory about population density and offering a new alternative
- (10) 18. It can be inferred from the passage that the author considers the dichotomy discussed in the second paragraph to be
(A) applicable only to erratically fluctuating populations
(B) useful, but only if its limitations are recognized
(C) dangerously misleading in most circumstances
(D) a complete and sufficient way to account for observed phenomena
(E) conceptually valid, but too confusing to apply on a practical basis
- (15) 19. Which of the following statements can be inferred from the last paragraph?
(A) For irregularly fluctuating populations, doubling the number of observations made will probably result in the isolation of density-dependent effects.
(B) Density-dependent effects on population dynamics do not occur as frequently as do density-independent effects.
(C) At present, ecologists do not understand any of the underlying causes of the density-dependent effects they observe in population dynamics.
(D) Density-dependent effects on growth parameters are thought to be caused by some sort of biochemical "signaling" that ecologists hope eventually to understand.
(E) It is sometimes possible to infer the existence of a density-dependent factor controlling population growth without understanding its causative mechanism.

GO ON TO THE NEXT PAGE.

20. According to the passage, which of the following is a true statement about density-dependent factors in population growth?
- (A) They ultimately account for long-term population levels.
 - (B) They have little to do with long-term population dynamics.
 - (C) They are always more easily isolated and described than those that are density-independent.
 - (D) They include random environmental events.
 - (E) They contradict current ecological assumptions about population dynamics.
21. According to the passage, all of the following behaviors have been exhibited by different populations EXCEPT
- (A) roughly constant population levels from year to year
 - (B) regular cycles of increases and decreases in numbers
 - (C) erratic increases in numbers correlated with the weather
 - (D) unchecked increases in numbers over many generations
 - (E) sudden declines in numbers from time to time
22. The discussion concerning population in lines 24-40 serves primarily to
- (A) demonstrate the difficulties ecologists face in studying density-dependent factors limiting population growth
 - (B) advocate more rigorous study of density-dependent factors in population growth
 - (C) prove that the death rates of any population are never entirely density-independent
 - (D) give an example of how death rates function to limit population densities in typical populations
 - (E) underline the importance of even small density-dependent factors in regulating long-term population densities
23. In the passage, the author does all of the following EXCEPT
- (A) cite the views of other biologists
 - (B) define a basic problem that the passage addresses
 - (C) present conceptual categories used by other biologists
 - (D) describe the results of a particular study
 - (E) draw a conclusion

GO ON TO THE NEXT PAGE.

Line
(5) In *Raisin in the Sun*, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization. Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work. Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led some critics to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism. Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation. But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than Du Bois' famous, well-considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

(10)

(15)

24. The author's primary purpose in this passage is to
- (A) explain some critics' refusal to consider *Raisin in the Sun* a deliberately ironic play
 - (B) suggest that ironic nuances ally *Raisin in the Sun* with Du Bois' and Fanon's writings
 - (C) analyze the fundamental dramatic conflicts in *Raisin in the Sun*
 - (D) justify the inclusion of contradictory elements in *Raisin in the Sun*
 - (E) affirm the thematic coherence underlying *Raisin in the Sun*

25. It can be inferred from the passage that the author believes which of the following about Hansberry's use of irony in *Raisin in the Sun*?

- (A) It derives from Hansberry's eclectic approach to dramatic structure.
- (B) It is justified by Hansberry's loyalty to a favorable depiction of American life.
- (C) It is influenced by the themes of works by Du Bois and Fanon.
- (D) It is more consistent with Hansberry's concern for Black Americans than with her ideal of human reconciliation.
- (E) It reflects Hansberry's reservations about the extent to which the American dream has been realized.

26. In which of the following does the author of the passage reinforce his criticism of responses such as Isaacs' to *Raisin in the Sun*?
- (A) The statement that Hansberry is "loyal" (line 3) to the American dream
 - (B) The description of Hansberry's concern for Black Americans as "intense" (line 13)
 - (C) The assertion that Hansberry is concerned with "human solidarity" (line 15)
 - (D) The description of Du Bois' ideal as "well-considered" (line 17)
 - (E) The description of Fanon's internationalism as "ideal" (line 19)
27. The author of the passage would probably consider which of the following judgments to be most similar to the reasoning of critics described in lines 8-12?
- (A) The world is certainly flat; therefore, the person proposing to sail around it is unquestionably foolhardy.
 - (B) Radioactivity cannot be directly perceived; therefore, a scientist could not possibly control it in a laboratory.
 - (C) The painter of this picture could not intend it to be funny; therefore, its humor must result from a lack of skill.
 - (D) Traditional social mores are beneficial to culture; therefore, anyone who deviates from them acts destructively.
 - (E) Filmmakers who produce documentaries deal exclusively with facts; therefore, a filmmaker who reinterprets particular events is misleading us.

GO ON TO THE NEXT PAGE.

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. ADVOCATE: (A) rectify (B) enforce
(C) observe (D) denounce (E) reimburse
29. CORRUGATED: (A) pliant (B) smooth
(C) fragile (D) vaporous (E) permeable
30. COVERT: (A) acquainted (B) acclaimed
(C) spontaneous (D) open (E) airtight
31. EXTRANEous: (A) fruitful (B) expeditious
(C) neutral (D) relevant (E) precipitous
32. DISTENSION: (A) release (B) dilution
(C) implosion (D) angularity (E) compression

33. CONVERSANCE: (A) anonymity (B) brevity
(C) lack of familiarity (D) lack of manners
(E) lack of enthusiasm
34. EMBOSs: (A) turn over (B) flatten out
(C) whittle away (D) roughen (E) unfold
35. QUOTIDIAN: (A) resourceful (B) serious
(C) unusual (D) expensive (E) combative
36. TORRIDNESS: (A) solubility (B) volatility
(C) frigidity (D) viscosity (E) purity
37. OPPROBRIUM: (A) good repute
(B) fair recompense (C) fidelity
(D) exposure (E) patience
38. DISABUSE: (A) afflict with pain
(B) lead into error (C) force into exile
(D) remove from grace (E) free from obligation

SECTION 5

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. Nearly two-thirds of the country's mushroom crop is produced by 160 growers in a single county, the greatest —— growers anywhere.
(A) cause of
(B) agreement among
(C) indication of
(D) interaction between
(E) concentration of
2. The disjunction between educational objectives that stress independence and individuality and those that emphasize obedience to rules and cooperation with others reflects a —— that arises from the values on which these objectives are based.
(A) conflict (B) redundancy (C) gain
(D) predictability (E) wisdom
3. It is —— for a government to fail to do whatever it can to eliminate a totally —— disease.
(A) folly, innocuous
(B) irresponsible, preventable
(C) crucial, fatal
(D) instinctive, devastating
(E) detrimental, insignificant
4. Dramatic literature often —— the history of a culture in that it takes as its subject matter the important events that have shaped and guided the culture.
(A) confounds (B) repudiates (C) recapitulates
(D) anticipates (E) polarizes
5. The legislators of 1563 realized the —— of trying to regulate the flow of labor without securing its reasonable remuneration, and so the second part of the statute dealt with establishing wages.
(A) intricacy (B) anxiety (C) futility
(D) necessity (E) decadence
6. Scientists who are on the cutting edge of research must often violate common sense and make seemingly —— assumptions because existing theories simply do not —— newly observed phenomena.
(A) radical, confirm
(B) vague, incorporate
(C) absurd, explain
(D) mistaken, reveal
(E) inexact, corroborate
7. The —— with which the French aristocracy greeted the middle-class Rousseau was all the more —— because he showed so little respect for them.
(A) deference, remarkable
(B) suspicion, uncertainty
(C) reserve, unexpected
(D) anger, ironic
(E) appreciation, deserved

GO ON TO THE NEXT PAGE.

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. BRUSH : PAINTING ::

- (A) piano : sonata
- (B) body : dance
- (C) typewriter : novel
- (D) chisel : sculpture
- (E) voice : soliloquy

9. DECIBEL : SOUND ::

- (A) volt : electricity
- (B) odometer : distance
- (C) radius : circle
- (D) color : light
- (E) wavelength : spectrum

10. DIPLOMAT : TACT ::

- (A) administrator : education
- (B) merchant : catalog
- (C) politician : flamboyance
- (D) inventor : ingenuity
- (E) accountant : flexibility

11. ATTORNEY : DISBAR ::

- (A) monarch : abdicate
- (B) emissary : debrief
- (C) officer : demote
- (D) landlord : evict
- (E) student : expel

12. DIRGE : MUSIC ::

- (A) fable : narrative
- (B) elegy : poetry
- (C) violin : strings
- (D) rhyme : tone
- (E) heroine : character

13. LOG : SHIP ::
(A) archive : data
(B) inventory : store
(C) roster : team
(D) bulletin : event
(E) diary : person

14. APOLOGIZE : CONTRITE ::

- (A) aggravate : contemptuous
- (B) endorse : esteemed
- (C) extenuate : guilty
- (D) compliment : impressed
- (E) rationalize : modest

15. EUPHEMISM : OFFENSE ::

- (A) rhetoric : persuasion
- (B) prevarication : truth
- (C) metaphor : description
- (D) repetition : boredom
- (E) conciliation : appeasement

16. SENSITIZATION : ALLERGIC ::

- (A) immunity : vulnerable
- (B) habituation : inured
- (C) invigoration : stimulating
- (D) sleep : anesthetic
- (E) disinfection : preventive

GO ON TO THE NEXT PAGE.

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.

Some recent historians have argued that life in the British colonies in America from approximately 1763 to 1789 was marked by internal conflicts among colonists. Inheritors of some of the viewpoints of early twentieth-century Progressive historians such as Beard and Becker, these recent historians have put forward arguments that deserve evaluation.

The kind of conflict most emphasized by these historians is class conflict. Yet with the Revolutionary War dominating these years, how does one distinguish class conflict within that larger conflict? Certainly not by the side a person supported. Although many of these historians have accepted the earlier assumption that Loyalists represented an upper class, new evidence indicates that Loyalists, like rebels, were drawn from all socio-economic classes. (It is nonetheless probably true that a larger percentage of the well-to-do joined the Loyalists than joined the rebels.) Looking at the rebel side, we find little evidence for the contention that lower-class rebels were in conflict with upper-class rebels. Indeed, the war effort against Britain tended to suppress class conflicts. Where it did not, the disputing rebels of one or another class usually became Loyalists. Loyalism thus operated as a safety valve to remove socioeconomic discontent that existed among the rebels. Disputes occurred, of course, among those who remained on the rebel side, but the extraordinary social mobility of eighteenth-century American society (with the obvious exception of slaves) usually prevented such disputes from hardening along class lines. Social structure was in fact so fluid—that recent statistics suggest a narrowing of economic opportunity as the latter half of the century progressed—that to talk about social classes at all requires the use of loose economic categories such as rich, poor, and middle class, or eighteenth-century designations like "the better sort." Despite these vague categories, one should not claim unequivocally that hostility between recognizable classes cannot be legitimately observed. Outside of New York, however, there were very few instances of openly expressed class antagonism.

Having said this, however, one must add that there is much evidence to support the further claim of recent historians that sectional conflicts were common between 1763 and 1789. The "Paxton Boys" incident and the Regulator movement are representative examples of the widespread, and justified, discontent of western settlers against colonial or state governments

dominated by eastern interests. Although undertones of class conflict existed beneath such hostility, the opposition was primarily geographical. Sectional conflict—which also existed between North and South—deserves further investigation.

In summary, historians must be careful about the kind of conflict they emphasize in eighteenth-century America. Yet those who stress the achievement of a general consensus among the colonists cannot fully understand that consensus without understanding the conflicts that had to be overcome or repressed in order to reach it.

17. The author considers the contentions made by the recent historians discussed in the passage to be
- (A) potentially verifiable
 - (B) partially justified
 - (C) logically contradictory
 - (D) ingenious but flawed
 - (E) capricious and unsupported
18. The author most likely refers to "historians such as Beard and Becker" (lines 5-6) in order to
- (A) isolate the two historians whose work is most representative of the viewpoints of Progressive historians
 - (B) emphasize the need to find connections between recent historical writing and the work of earlier historians
 - (C) make a case for the importance of the views of the Progressive historians concerning eighteenth-century American life
 - (D) suggest that Progressive historians were the first to discover the particular internal conflicts in eighteenth-century American life mentioned in the passage
 - (E) point out historians whose views of history anticipated some of the views of the recent historians mentioned in the passage

GO ON TO THE NEXT PAGE.

19. According to the passage, Loyalism during the American Revolutionary War served the function of
- (A) eliminating the disputes that existed among those colonists who supported the rebel cause
 - (B) drawing upper, as opposed to lower, socioeconomic classes away from the rebel cause
 - (C) tolerating the kinds of socioeconomic discontent that were not allowed to exist on the rebel side
 - (D) channeling conflict that existed within a socioeconomic class into the war effort against the rebel cause
 - (E) absorbing members of socioeconomic groups on the rebel side who felt themselves in contention with members of other socioeconomic groups
20. The passage suggests that the author would be likely to agree with which of the following statements about the social structure of eighteenth-century American society?
- I. It allowed greater economic opportunity than it did social mobility.
 - II. It permitted greater economic opportunity prior to 1750 than after 1750.
 - III. It did not contain rigidly defined socioeconomic divisions.
 - IV. It prevented economic disputes from arising among members of the society.
- (A) I and IV only
 - (B) II and III only
 - (C) III and IV only
 - (D) I, II, and III only
 - (E) I, II, III, and IV
21. It can be inferred from the passage that the author would be most likely to agree with which of the following statements regarding socioeconomic class and support for the rebel and Loyalist causes during the American Revolutionary War?
- (A) Identifying a person's socioeconomic class is the least accurate method of ascertaining which side that person supported.
 - (B) Identifying a person as a member of the rebel or of the Loyalist side does not necessarily reveal that person's particular socioeconomic class.
 - (C) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although there were fewer disputes among socioeconomic classes on the Loyalist side.
 - (D) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although the Loyalist side was made up primarily of members of the upper classes.
 - (E) Both the rebel and the Loyalist sides contained members of all socioeconomic classes, although many upper-class rebels eventually joined the Loyalists.
22. The author suggests which of the following about the representativeness of colonial or state governments in America from 1763 to 1789?
- (A) The governments inadequately represented the interests of people in western regions.
 - (B) The governments more often represented class interests than sectional interests.
 - (C) The governments were less representative than they had been before 1763.
 - (D) The governments were dominated by the interests of people of an upper socioeconomic class.
 - (E) The governments of the northern colonies were less representative than were the governments of the southern colonies.
23. According to the passage, which of the following is a true statement about sectional conflicts in America between 1763 and 1789?
- (A) These conflicts were instigated by eastern interests against western settlers.
 - (B) These conflicts were the most serious kind of conflict in America.
 - (C) The conflicts eventually led to openly expressed class antagonism.
 - (D) These conflicts contained an element of class hostility.
 - (E) These conflicts were motivated by class conflicts.

GO ON TO THE NEXT PAGE.

Line 5
Since 1953, many experimental attempts to synthesize the chemical constituents of life under "primitive Earth conditions" have been performed, but none of these experiments has produced anything approaching the complexity of the simplest organism. They have demonstrated, however, that a variety of the complex molecules currently making up living organisms could have been present in the early ocean and atmosphere, with only one limitation: such molecules are synthesized far less readily when oxygen-containing compounds dominate the atmosphere. Therefore some scientists postulate that the Earth's earliest atmosphere, unlike that of today, was dominated by hydrogen, methane, and ammonia.

- 10) 15) From these studies, scientists have concluded that the surface of the primitive Earth was covered with oceans containing the molecules fundamental to life. Although, at present, scientists cannot explain how these relatively small molecules combined to produce larger, more complex molecules, some scientists have precipitously ventured hypotheses that attempt to explain the development, from these larger molecules, of the earliest self-duplicating organisms.

- 20) 24. According to the passage, which of the following can be inferred about the process by which the chemical constituents of life were synthesized under primitive Earth conditions?
- (A) The synthesis is unlikely to occur under current atmospheric conditions.
 - (B) The synthesis is common in modern laboratories.
 - (C) The synthesis occurs more readily in the atmosphere than in the ocean.
 - (D) The synthesis easily produces the most complex organic molecules.
 - (E) The synthesis is accelerated by the presence of oxygen-containing compounds.

25. The primary purpose of the passage is to
- (A) point out that theories about how life developed on Earth have changed little since 1953
 - (B) warn of increasing levels of hydrogen, methane, and ammonia in the Earth's atmosphere
 - (C) describe the development since 1953 of some scientists' understanding of how life began on Earth
 - (D) demonstrate that the synthesis of life in the laboratory is too difficult for modern technology
 - (E) describe how primitive atmospheric conditions produced the complex molecules of living organisms

26. It can be inferred from the passage that "some scientists" assume which of the following concerning "larger, more complex molecules" (line 20)?

- (A) The earliest atmosphere was formed primarily of these molecules.
- (B) Chemical processes involving these molecules proceeded much more slowly under primitive Earth conditions.
- (C) The presence of these molecules would necessarily precede the existence of simple organisms.
- (D) Experimental techniques will never be sufficiently sophisticated to produce in the laboratory simple organisms from these chemical constituents.
- (E) Explanations could easily be developed to explain how simple molecules combined to form these more complex ones.

27. The author's reaction to the attempts that have been made to explain the development of the first self-duplicating organisms can best be described as one of

- (A) enthusiasm
- (B) expectation
- (C) dismay
- (D) skepticism
- (E) antipathy

GO ON TO THE NEXT PAGE.

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. MINIMIZE: (A) report (B) imagine
(C) repair (D) overestimate (E) investigate
29. VARIATION: (A) uniformity (B) equivalence
(C) parallelism (D) comparison (E) precision
30. DEFAULT: (A) budget one's time
(B) pay one's debts (C) change one's opinion
(D) keep one's temper (E) hoard one's resources
31. SUBSTANTIVE: (A) inelegant (B) casual
(C) controversial (D) trivial (E) indirect
32. METEORIC: (A) skeptical (B) pessimistic
(C) complacent (D) gradual (E) exemplary

33. CENSURE: (A) commend (B) trust
(C) excite (D) perceive (E) console
34. INCHOATE: (A) obviously fictional
(B) partially reliable (C) fully realized
(D) suspended (E) operative
35. APOCRYPHA: (A) synopsis (B) dissertation
(C) canon (D) disclosure (E) idolatry
36. ABSCISSION: (A) process of grafting
(B) process of transforming
(C) state of fluctuation
(D) absence of contamination
(E) lack of coordination
37. EQUANIMITY: (A) uncharitableness
(B) agitation (C) predisposition
(D) disinterest (E) loquacity
38. ONEROUS: (A) popular (B) beneficial
(C) calming (D) showing great consideration
(E) requiring little effort

FOR GENERAL TEST 26 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 2					
Number	Answer	P+	Number	Answer	P+
1	B	96	1	E	94
2	E	88	2	A	91
3	C	79	3	B	87
4	B	72	4	C	76
5	A	82	5	C	71
6	D	58	6	C	63
7	E	63	7	A	58
8	B	70	8	D	85
9	D	77	9	A	77
10	A	76	10	D	70
11	C	67	11	E	76
12	A	57	12	B	61
13	E	66	13	E	67
14	B	38	14	D	38
15	D	30	15	B	30
16	C	15	16	B	23
17	A	60	17	B	58
18	B	79	18	E	30
19	A	40	19	A	37
20	E	47	20	B	33
21	D	55	21	B	41
22	E	43	22	A	53
23	D	61	23	D	44
24	E	24	24	A	67
25	E	54	25	C	56
26	D	24	26	C	49
27	C	58	27	D	45
28	D	91	28	D	97
29	B	78	29	A	25
30	D	79	30	B	82
31	D	65	31	D	76
32	E	60	32	D	52
33	C	43	33	A	48
34	B	48	34	C	48
35	C	38	35	C	24
36	C	33	36	A	32
37	A	25	37	B	27
38	B	17	38	E	29

QUANTITATIVE ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	B	89	1	B	81
2	C	81	2	C	90
3	A	86	3	B	90
4	B	76	4	D	83
5	D	80	5	A	82
6	A	65	6	D	67
7	C	60	7	D	72
8	A	65	8	A	61
9	D	51	9	D	58
10	D	52	10	A	48
11	A	47	11	A	51
12	B	39	12	C	37
13	C	39	13	C	43
14	C	29	14	C	46
15	D	20	15	A	26
16	C	88	16	C	78
17	D	70	17	B	82
18	A	87	18	A	72
19	B	55	19	D	61
20	E	73	20	E	52
21	B	90	21	B	86
22	E	87	22	C	73
23	A	83	23	B	84
24	C	58	24	D	56
25	D	40	25	E	55
26	A	57	26	B	42
27	B	58	27	D	52
28	D	33	28	C	35
29	D	33	29	E	27
30	E	32	30	E	26

ANALYTICAL ABILITY					
Section 3			Section 7		
Number	Answer	P+	Number	Answer	P+
1	E	78	1	C	79
2	A	66	2	D	48
3	E	83	3	B	54
4	B	67	4	A	50
5	A	65	5	C	45
6	D	49	6	A	48
7	B	49	7	E	41
8	E	86	8	E	79
9	A	43	9	A	69
10	A	47	10	C	75
11	C	76	11	C	84
12	C	82	12	D	83
13	B	70	13	B	80
14	E	61	14	D	72
15	C	43	15	B	58
16	E	25	16	A	53
17	B	53	17	C	48
18	C	51	18	B	44
19	A	41	19	D	57
20	E	40	20	C	54
21	D	32	21	D	36
22	E	19	22	D	25
23	C	76	23	E	59
24	D	73	24	A	55
25	A	66	25	E	51

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

TEST 27

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. Agronomists are increasingly worried about "desertification," the phenomenon that is turning many of the world's ____ fields and pastures into ____ wastelands, unable to support the people living on them.
(A) fertile..barren
(B) productive..blooming
(C) arid..thriving
(D) poorest..marginal
(E) largest..saturated
2. Old beliefs die hard: even when jobs became ____, the long-standing fear that unemployment could return at a moment's notice _____.
(A) vacant..perished
(B) easier..changed
(C) plentiful..persisted
(D) protected..subsided
(E) available..receded
3. Intellectual ____ and flight from boredom have caused him to rush pell-mell into situations that less ____ spirits might hesitate to approach.
(A) restlessness..adventurous
(B) agitation..passive
(C) resilience..quiescent
(D) tranquillity..versatile
(E) curiosity..lethargic
4. Science advances in ____ spiral in that each new conceptual scheme ____ the phenomena explained by its predecessors and adds to those explanations.
(A) a discontinuous...decries
(B) a repetitive..vitiatess
(C) a widening..embraces
(D) an anomalous..captures
(E) an explosive..questions
5. Politeness is not a ____ attribute of human behavior, but rather a central virtue, one whose very existence is increasingly being ____ by the faddish requirement to "speak one's mind."
(A) superficial..threatened
(B) pervasive..undercut
(C) worthless..forestalled
(D) precious..repudiated
(E) trivial..affected
6. The painting was larger than it appeared to be, for, hanging in a darkened recess of the chapel, it was ____ by the perspective.
(A) improved
(B) aggrandized
(C) embellished
(D) jeopardized
(E) diminished
7. Because folk art is neither completely rejected nor accepted as an art form by art historians, their final evaluations of it necessarily remain _____.
(A) arbitrary
(B) estimable
(C) orthodox
(D) unspoken
(E) equivocal

GO ON TO THE NEXT PAGE.

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. REFEREE : FIELD :: (A) scientist : results
(B) mediator : deadlock (C) gladiator : contest
(D) teacher : classroom (E) judge : courtroom
9. BLUSH : EMBARRASSMENT ::
(A) scream : anger (B) smile : pleasure
(C) laugh : outrage (D) love : sentimentality
(E) whine : indecision
10. TANGO : DANCE ::
(A) arabesque : theme
(B) tonality : instrumentation
(C) rhyme : pattern
(D) stanza : line
(E) elegy : poem
11. CELL : MEMBRANE ::
(A) door : jamb
(B) yard : sidewalk
(C) seed : hull
(D) head : halo
(E) mountain : clouds
12. HYMN : PRAISE :: (A) waltz : joy
(B) liturgy : rite (C) lullaby : child
(D) dirge : grief (E) prayer : congregation

13. EMOLLIENT : SOOTHE ::

- (A) dynamo : generate
(B) elevation : level
(C) precipitation : fall
(D) hurricane : track
(E) negative : expose

14. IMPLACABLE : COMPROMISE ::

- (A) perfidious : conspire
(B) irascible : avenge
(C) honest : swindle
(D) amenable : deceive
(E) hasty : prevail

15. MISANTHROPE : PEOPLE ::

- (A) patriot : country
(B) reactionary : government
(C) curmudgeon : children
(D) xenophobe : strangers
(E) miscreant : dogma

16. MILK : EXTRACT :: (A) squander : enjoy

- (B) exploit : utilize (C) research : investigate
(D) hire : manage (E) wheedle : flatter

GO ON TO THE NEXT PAGE.

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.

Many critics of Emily Brontë's novel *Wuthering Heights* see its second part as a counterpoint that comments on, if it does not reverse, the first part, where a "romantic" reading receives more confirmation. Seeing the two parts as a whole is encouraged by the novel's sophisticated structure, revealed in its complex use of narrators and time shifts. Granted that the presence of these elements need not argue an authorial awareness of novelistic construction comparable to that of Henry James, their presence does encourage attempts to unify the novel's heterogeneous parts. However, any interpretation that seeks to unify all of the novel's diverse elements is bound to be somewhat unconvincing. This is not because such an interpretation necessarily stiffens into a thesis (although rigidity in any interpretation of this or of any novel is always a danger), but because *Wuthering Heights* has recalcitrant elements of undeniable power that, ultimately, resist inclusion in an all-encompassing interpretation. In this respect, *Wuthering Heights* shares a feature of *Hamlet*.

17. According to the passage, which of the following is a true statement about the first and second parts of *Wuthering Heights*?

- (A) The second part has received more attention from critics.
- (B) The second part has little relation to the first part.
- (C) The second part annuls the force of the first part.
- (D) The second part provides less substantiation for a "romantic" reading.
- (E) The second part is better because it is more realistic.

18. Which of the following inferences about Henry James's awareness of novelistic construction is best supported by the passage?

- (A) James, more than any other novelist, was aware of the difficulties of novelistic construction.
- (B) James was very aware of the details of novelistic construction.
- (C) James's awareness of novelistic construction derived from his reading of Brontë.
- (D) James's awareness of novelistic construction has led most commentators to see unity in his individual novels.
- (E) James's awareness of novelistic construction precluded him from violating the unity of his novels.

19. The author of the passage would be most likely to agree that an interpretation of a novel should

- (A) not try to unite heterogeneous elements in the novel
- (B) not be inflexible in its treatment of the elements in the novel
- (C) not argue that the complex use of narrators or of time shifts indicates a sophisticated structure
- (D) concentrate on those recalcitrant elements of the novel that are outside the novel's main structure
- (E) primarily consider those elements of novelistic construction of which the author of the novel was aware

20. The author of the passage suggests which of the following about *Hamlet*?

- I. *Hamlet* has usually attracted critical interpretations that tend to stiffen into theses.
 - II. *Hamlet* has elements that are not amenable to an all-encompassing critical interpretation.
 - III. *Hamlet* is less open to an all-encompassing critical interpretation than is *Wuthering Heights*.
 - IV. *Hamlet* has not received a critical interpretation that has been widely accepted by readers.
- (A) I only
 - (B) II only
 - (C) I and IV only
 - (D) III and IV only
 - (E) I, II, and III only

GO ON TO THE NEXT PAGE.

The determination of the sources of copper ore used in the manufacture of copper and bronze artifacts of Bronze Age civilizations would add greatly to our knowledge of cultural contacts and trade in that era. Researchers have analyzed artifacts and ores for their concentrations of elements, but for a variety of reasons, these studies have generally failed to provide evidence of the sources of the copper used in the objects. Elemental composition can vary within the same copper-ore lode, usually because of varying admixtures of other elements, especially iron, lead, zinc, and arsenic. And high concentrations of cobalt or zinc, noticed in some artifacts, appear in a variety of copper-ore sources. Moreover, the processing of ores introduced poorly controlled changes in the concentrations of minor and trace elements in the resulting metal. Some elements evaporate during smelting and roasting; different temperatures and processes produce different degrees of loss. Finally, flux, which is sometimes added during smelting to remove waste material from the ore, could add quantities of elements to the final product.

An elemental property that is unchanged through these chemical processes is the isotopic composition of each metallic element in the ore. Isotopic composition, the percentages of the different isotopes of an element in a given sample of the element, is therefore particularly suitable as an indicator of the sources of the ore. Of course, for this purpose it is necessary to find an element whose isotopic composition is more or less constant throughout a given ore body, but varies from one copper ore body to another or, at least, from one geographic region to another.

The ideal choice, when isotopic composition is used to investigate the source of copper ore, would seem to be copper itself. It has been shown that small but measurable variations occur naturally in the isotopic composition of copper. However, the variations are large enough only in rare ores; between samples of the common ore minerals of copper, isotopic variations greater than the measurement error have not been found. An alternative choice is lead, which occurs in most copper and bronze artifacts of the Bronze Age in amounts consistent with the lead being derived from the copper ores and possibly from the fluxes. The isotopic composition of lead often varies from one source of common copper ore to another, with variations exceeding the measurement error; and preliminary studies indicate virtually uniform isotopic composition of the lead from a single copper-ore source. While some of the lead found in an artifact may have been introduced from flux or when other metals were added to the copper ore, lead so added in Bronze Age processing would usually have the same isotopic composition as the lead in the copper ore. Lead isotope studies may thus prove useful for interpreting the archaeological record of the Bronze Age.

21. The primary purpose of the passage is to
 - (A) discuss the techniques of analyzing lead isotope composition
 - (B) propose a way to determine the origin of the copper in certain artifacts
 - (C) resolve a dispute concerning the analysis of copper ore
 - (D) describe the deficiencies of a currently used method of chemical analysis of certain metals
 - (E) offer an interpretation of the archaeological record of the Bronze Age
22. The author first mentions the addition of flux during smelting (lines 18-21) in order to
 - (A) give a reason for the failure of elemental composition studies to determine ore sources
 - (B) illustrate differences between various Bronze Age civilizations
 - (C) show the need for using high smelting temperatures
 - (D) illustrate the uniformity of lead isotope composition
 - (E) explain the success of copper isotope composition analysis
23. The author suggests which of the following about a Bronze Age artifact containing high concentrations of cobalt or zinc?
 - (A) It could not be reliably tested for its elemental composition.
 - (B) It could not be reliably tested for its copper isotope composition.
 - (C) It could not be reliably tested for its lead isotope composition.
 - (D) It could have been manufactured from ore from any one of a variety of sources.
 - (E) It could have been produced by the addition of other metals during the processing of the copper ore.

GO ON TO THE NEXT PAGE.

24. According to the passage, possible sources of the lead found in a copper or bronze artifact include which of the following?
- I. The copper ore used to manufacture the artifact
 - II. Flux added during processing of the copper ore
 - III. Other metal added during processing of the copper ore
- (A) I only
(B) II only
(C) III only
(D) II and III only
(E) I, II, and III
25. The author rejects copper as the "ideal choice" mentioned in line 33 because
- (A) the concentration of copper in Bronze Age artifacts varies
(B) elements other than copper may be introduced during smelting
(C) the isotopic composition of copper changes during smelting
(D) among common copper ores, differences in copper isotope composition are too small
(E) within a single source of copper ore, copper isotope composition can vary substantially
26. The author makes which of the following statements about lead isotope composition?
- (A) It often varies from one copper-ore source to another.
(B) It sometimes varies over short distances in a single copper-ore source.
(C) It can vary during the testing of artifacts, producing a measurement error.
(D) It frequently changes during smelting and roasting.
(E) It may change when artifacts are buried for thousands of years.
27. It can be inferred from the passage that the use of flux in processing copper ore can alter the lead isotope composition of the resulting metal EXCEPT when
- (A) there is a smaller concentration of lead in the flux than in the copper ore
(B) the concentration of lead in the flux is equivalent to that of the lead in the ore
(C) some of the lead in the flux evaporates during processing
(D) any lead in the flux has the same isotopic composition as the lead in the ore
(E) other metals are added during processing

GO ON TO THE NEXT PAGE.

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. MUTTER: (A) please oneself
(B) resolve conflict (C) speak distinctly
(D) digress randomly (E) omit willingly
29. TRANSPARENT: (A) indelicate (B) neutral
(C) opaque (D) somber (E) tangible
30. ENSEMBLE: (A) complement (B) cacophony
(C) coordination (D) preface (E) solo
31. RETAIN: (A) allocate (B) distract
(C) relegate (D) discard (E) misplace
32. RADIATE: (A) approach (B) cool
(C) absorb (D) tarnish (E) vibrate

33. EPICURE: (A) a person ignorant about art
(B) a person dedicated to a cause
(C) a person motivated by greed
(D) a person indifferent to food
(E) a person insensitive to emotions
34. PREVARICATION: (A) tact (B) consistency
(C) veracity (D) silence (E) proof
35. AMORTIZE: (A) loosen
(B) denounce
(C) suddenly increase one's indebtedness
(D) wisely cause to flourish
(E) grudgingly make provision for
36. EMACIATION: (A) invigoration
(B) glorification (C) amelioration
(D) inundation (E) magnification
37. UNALLOYED: (A) destabilized
(B) unregulated (C) assimilated
(D) adulterated (E) condensed
38. MINATORY: (A) reassuring (B) genuine
(C) creative (D) obvious (E) awkward

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. Because it is ----- to ----- all the business costs related to employee discontent, an accurate estimate of the magnitude of these costs is not easily calculated.
(A) difficult .. measure
(B) impossible .. justify
(C) improper .. overlook
(D) useless .. discover
(E) necessary .. pinpoint
2. Consider the universal cannibalism of the sea, all of whose creatures ----- one another.
(A) hide from
(B) ferret out
(C) prey on
(D) glide among
(E) compete against
3. How could words, confined as they individually are to certain ----- meanings specified in a dictionary, eventually come, when combined in groups, to create obscurity and actually to prevent thought from being -----?
(A) indefinite .. articulated
(B) conventional .. conceivable
(C) unlikely .. classified
(D) archaic .. expressed
(E) precise .. communicable
4. Even though they tended to be ----- strangers, fifteenth-century Europeans did not automatically associate ----- and danger.
(A) trusting of .. diversity
(B) haughty with .. nonconformity
(C) interested in .. enmity
(D) antagonistic to .. rudeness
(E) hostile to .. foreignness
5. The modern age is a permissive one in which things can be said explicitly, but the old tradition of ----- dies hard.
(A) garrulousness
(B) exaggeration
(C) excoriation
(D) bombast
(E) euphemism
6. Although many findings of the Soviet and United States probes of Venus were complementary, the two sets of atmospheric results clearly could not be ----- without a major change of data or -----.
(A) obtained .. experimentation
(B) completed .. position
(C) matched .. implementation
(D) reconciled .. interpretation
(E) produced .. falsification
7. While it is assumed that the mechanization of work has a ----- effect on the lives of workers, there is evidence available to suggest that, on the contrary, mechanization has served to ----- some of the traditional roles of women.
(A) salutary .. improve
(B) dramatic .. undermine
(C) benign .. revise
(D) debilitating .. weaken
(E) revolutionary .. reinforce

GO ON TO THE NEXT PAGE.

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. PILOT : SHIP :: (A) surveyor : landscape
(B) conductor : orchestra (C) guard : stockade
(D) actor : scene (E) philosopher : inspiration
9. TOPSOIL : ERODE :: (A) leather : tan
(B) veneer : varnish (C) roast : baste
(D) grain : mash (E) paint : peel
10. SCREEN : MOVIE :: (A) shelf : book
(B) frame : portrait (C) shadow : object
(D) stage : play (E) score : performance
11. VOLCANO : LAVA ::
(A) geyser : water
(B) fault : tremor
(C) glacier : fissure
(D) avalanche : snow
(E) cavern : limestone
12. COGENT : CONVINCE ::
(A) irrational : disturb
(B) repugnant : repel
(C) dangerous : avoid
(D) eloquent : refine
(E) generous : appreciate
13. CHARY : CAUTION ::
(A) circumspect : recklessness
(B) imperturbable : composure
(C) meticulous : resourcefulness
(D) exigent : stability
(E) fortuitous : pluck
14. USURY : INTEREST ::
(A) fraud : property
(B) gouging : price
(C) monopoly : production
(D) foreclosure : mortgage
(E) embezzlement : savings
15. EPITHET : DISPARAGE ::
(A) abbreviation : proliferate
(B) hieroglyphic : mythologize
(C) diminutive : respect
(D) code : simplify
(E) alias : mislead
16. OFFENSE : PECCADILLO ::
(A) envy : resentment
(B) quarrel : tiff
(C) affinity : wish
(D) depression : regret
(E) homesickness : nostalgia

GO ON TO THE NEXT PAGE.

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.

Since the Hawaiian Islands have never been connected to other land masses, the great variety of plants in Hawaii must be a result of the long-distance dispersal of seeds, a process that requires both a method of transport and an equivalence between the ecology of the source area and that of the recipient area.

There is some dispute about the method of transport involved. Some biologists argue that ocean and air currents are responsible for the transport of plant seeds to Hawaii. Yet the results of flotation experiments and the low temperatures of air currents cast doubt on these hypotheses. More probable is bird transport, either externally, by accidental attachment of the seeds to feathers, or internally, by the swallowing of fruit and subsequent excretion of the seeds. While it is likely that fewer varieties of plant seeds have reached Hawaii externally than internally, more varieties are known to be adapted to external than to internal transport.

17. The author of the passage is primarily concerned with

- (A) discussing different approaches biologists have taken to testing theories about the distribution of plants in Hawaii
- (B) discussing different theories about the transport of plant seeds to Hawaii
- (C) discussing the extent to which air currents are responsible for the dispersal of plant seeds to Hawaii
- (D) resolving a dispute about the adaptability of plant seeds to bird transport
- (E) resolving a dispute about the ability of birds to carry plant seeds long distances

18. The author mentions the results of flotation experiments on plant seeds (lines 10-12) most probably in order to

- (A) support the claim that the distribution of plants in Hawaii is the result of the long-distance dispersal of seeds
- (B) lend credibility to the thesis that air currents provide a method of transport for plant seeds to Hawaii
- (C) suggest that the long-distance dispersal of seeds is a process that requires long periods of time
- (D) challenge the claim that ocean currents are responsible for the transport of plant seeds to Hawaii
- (E) refute the claim that Hawaiian flora evolved independently from flora in other parts of the world

19. It can be inferred from information in the passage that the existence in alpine regions of Hawaii of a plant species that also grows in the southwestern United States would justify which of the following conclusions?

- (A) The ecology of the southwestern United States is similar in important respects to the ecology of alpine regions of Hawaii.
- (B) There are ocean currents that flow from the southwestern United States to Hawaii.
- (C) The plant species discovered in Hawaii must have traveled from the southwestern United States only very recently.
- (D) The plant species discovered in Hawaii reached there by attaching to the feathers of birds migrating from the southwestern United States.
- (E) The plant species discovered in Hawaii is especially well adapted to transport over long distances.

20. The passage supplies information for answering which of the following questions?

- (A) Why does successful long-distance dispersal of plant seeds require an equivalence between the ecology of the source area and that of the recipient area?
- (B) Why are more varieties of plant seeds adapted to external rather than to internal bird transport?
- (C) What varieties of plant seeds are birds that fly long distances most likely to swallow?
- (D) What is a reason for accepting the long-distance dispersal of plant seeds as an explanation for the origin of Hawaiian flora?
- (E) What evidence do biologists cite to argue that ocean and air currents are responsible for the transport of plant seeds to Hawaii?

GO ON TO THE NEXT PAGE.

Line
(5) A long-held view of the history of the English colonies that became the United States has been that England's policy toward these colonies before 1763 was dictated by commercial interests and that a change to a more imperial policy, dominated by expansionist militarist objectives, generated the tensions that ultimately led to the American Revolution. In a recent study, Stephen Saunders Webb has presented a formidable challenge to this view: According to Webb, England already had a military imperial policy for more than a century before the American Revolution. He sees Charles II, the English monarch between 1660 and 1685, as the proper successor of the Tudor monarchs of the sixteenth century and of Oliver Cromwell, all of whom were bent on extending centralized executive power over England's possessions through the use of what Webb calls "garrison government." Garrison government allowed the colonists a legislative assembly, but real authority, in Webb's view, belonged to the colonial governor, who was appointed by the king and supported by the "garrison," that is, by the local contingent of English troops under the colonial governor's command.

(10)

(15)

(20)

(25) According to Webb, the purpose of garrison government was to provide military support for a royal policy designed to limit the power of the upper classes in the American colonies. Webb argues that the colonial legislative assemblies represented the interests not of the common people but of the colonial upper classes, a coalition of merchants and nobility who favored self-rule and sought to elevate legislative authority at the expense of the executive. It was, according to Webb, the colonial governors who favored the small farmer, opposed the plantation system, and tried through taxation to break up large holdings of land. Backed by the military presence of the garrison, these governors tried to prevent the gentry and merchants, allied in the colonial assemblies, from transforming colonial America into a capitalistic oligarchy.

(30)

(35)

(40) Webb's study illuminates the political alignments that existed in the colonies in the century prior to the American Revolution, but his view of the crown's use of the military as an instrument of colonial policy is not entirely convincing. England during the seventeenth century was not noted for its military achievements. Cromwell did mount England's most ambitious overseas military expedition in more than a century, but it proved to be an utter failure. Under Charles II, the English army was too small to be a major instrument of government. Not until the war with France in 1697 did William III persuade Parliament to create a professional standing army, and Parliament's price for doing so was to keep the army under tight legislative control. While it may be true that the crown attempted to curtail the power of the colonial upper classes, it is hard to imagine how the English army during the seventeenth century could have provided significant military support for such a policy.

(45)

(50)

(55)

21. The passage can best be described as a
- (A) survey of the inadequacies of a conventional viewpoint
 - (B) reconciliation of opposing points of view
 - (C) summary and evaluation of a recent study
 - (D) defense of a new thesis from anticipated objections
 - (E) review of the subtle distinctions between apparently similar views
22. The passage suggests that the view referred to in lines 1-7 argued that
- (A) the colonial governors were sympathetic to the demands of the common people
 - (B) Charles II was a pivotal figure in the shift of English monarchs toward a more imperial policy in their governorship of the American colonies
 - (C) the American Revolution was generated largely out of a conflict between the colonial upper classes and an alliance of merchants and small farmers
 - (D) the military did not play a major role as an instrument of colonial policy until 1763
 - (E) the colonial legislative assemblies in the colonies had little influence over the colonial governors
23. It can be inferred from the passage that Webb would be most likely to agree with which of the following statements regarding garrison government?
- (A) Garrison government gave legislative assemblies in the colonies relatively little authority, compared to the authority that it gave the colonial governors.
 - (B) Garrison government proved relatively ineffective until it was used by Charles II to curb the power of colonial legislatures.
 - (C) Garrison government became a less viable colonial policy as the English Parliament began to exert tighter legislative control over the English military.
 - (D) Oliver Cromwell was the first English ruler to make use of garrison government on a large scale.
 - (E) The creation of a professional standing army in England in 1697 actually weakened garrison government by diverting troops from the garrisons stationed in the American colonies.

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24. According to the passage, Webb views Charles II as the "proper successor" (line 13) of the Tudor monarchs and Cromwell because Charles II
- (A) used colonial tax revenues to fund overseas military expeditions
 - (B) used the military to extend executive power over the English colonies
 - (C) wished to transform the American colonies into capitalistic oligarchies
 - (D) resisted the English Parliament's efforts to exert control over the military
 - (E) allowed the American colonists to use legislative assemblies as a forum for resolving grievances against the crown
25. Which of the following, if true, would most seriously weaken the author's assertion in lines 54-58?
- (A) Because they were poorly administered, Cromwell's overseas military expeditions were doomed to failure.
 - (B) Because it relied primarily on the symbolic presence of the military, garrison government could be effectively administered with a relatively small number of troops.
 - (C) Until early in the seventeenth century, no professional standing army in Europe had performed effectively in overseas military expeditions.
 - (D) Many of the colonial governors appointed by the crown were also commissioned army officers.
 - (E) Many of the English troops stationed in the American colonies were veterans of other overseas military expeditions.
26. According to Webb's view of colonial history, which of the following was (were) true of the merchants and nobility mentioned in line 30?
- I. They were opposed to policies formulated by Charles II that would have transformed the colonies into capitalistic oligarchies.
 - II. They were opposed to attempts by the English crown to limit the power of the legislative assemblies.
 - III. They were united with small farmers in their opposition to the stationing of English troops in the colonies.
- (A) I only
 - (B) II only
 - (C) I and II only
 - (D) II and III only
 - (E) I, II, and III
27. The author suggests that if William III had wanted to make use of the standing army mentioned in line 52 to administer garrison government in the American colonies, he would have had to
- (A) make peace with France
 - (B) abolish the colonial legislative assemblies
 - (C) seek approval from the English Parliament
 - (D) appoint colonial governors who were more sympathetic to royal policy
 - (E) raise additional revenues by increasing taxation of large landholdings in the colonies

GO ON TO THE NEXT PAGE.

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. FLUCTUATE: (A) work for (B) flow over
(C) follow from (D) remain steady
(E) cling together

29. PRECARIOUS: (A) safe (B) covert
(C) rescued (D) revived (E) pledged

30. FUMBLE: (A) organize neatly (B) say clearly
(C) prepare carefully (D) handle adroitly
(E) replace immediately

31. AUTHENTIC: (A) ordinary (B) criminal
(C) unattractive (D) inexpensive (E) bogus

32. COWER: (A) swiftly disappear
(B) brazenly confront (C) assuage
(D) coast (E) invert

33. PRISTINE: (A) ruthless (B) seductive
(C) coarse (D) commonplace
(E) contaminated

34. LAMBASTE: (A) permit (B) prefer
(C) extol (D) smooth completely
(E) support openly

35. VISCID: (A) bent (B) prone (C) cool
(D) slick (E) slight

36. TURPITUDE: (A) saintly behavior
(B) clever conversation (C) lively imagination
(D) agitation (E) lucidity

37. PHILISTINE: (A) perfectionist (B) aesthete
(C) iconoclast (D) critic (E) cynic

38. ODIUM: (A) ease (B) fragrance
(C) resignation (D) eccentricity
(E) infatuation

FOR GENERAL TEST 27 ONLY
Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1		Section 5			
Number	Answer	P+	Number	Answer	P+
1	A	84	1	A	90
2	C	31	2	C	94
3	B	11	3	C	69
4	C	33	4	C	71
5	B	51	5	C	51
6	B	53	6	C	58
7	D	27	7	C	36
8	B	82	8	C	86
9	B	83	9	C	91
10	B	65	10	C	80
11	C	81	11	A	79
12	D	53	12	B	42
13	A	47	13	B	37
14	D	45	14	B	30
15	D	33	15	C	27
16	B	28	16	B	45
17	B	49	17	B	86
18	B	47	18	B	82
19	B	37	19	B	47
20	B	68	20	B	61
21	B	60	21	B	58
22	A	72	22	B	37
23	D	37	23	A	68
24	D	53	24	B	69
25	O	46	25	B	49
26	A	51	26	B	40
27	D	39	27	B	55
28	D	93	28	D	94
29	D	81	29	A	78
30	D	79	30	C	80
31	D	80	31	B	31
32	D	79	32	C	34
33	D	33	33	C	44
34	C	31	34	B	36
35	C	34	35	C	37
36	A	22	36	B	38
37	D	29	37	B	30
38	A	17	38	B	22

QUANTITATIVE ABILITY					
Section 2		Section 4			
Number	Answer	P+	Number	Answer	P+
1	B	95	1	A	93
2	A	23	2	B	84
3	A	81	3	C	84
4	C	70	4	C	81
5	C	78	5	C	82
6	D	77	6	B	83
7	B	74	7	B	76
8	A	71	8	C	74
9	A	72	9	D	78
10	D	83	10	D	64
11	A	74	11	C	75
12	B	72	12	C	49
13	B	52	13	D	66
14	D	24	14	D	19
15	C	19	15	C	20
16	C	84	16	B	93
17	B	80	17	B	78
18	B	72	18	B	68
19	C	71	19	B	68
20	D	63	20	C	54
21	B	91	21	B	89
22	B	89	22	C	81
23	C	74	23	C	71
24	D	61	24	D	76
25	C	43	25	B	36
26	C	60	26	B	60
27	C	52	27	B	50
28	A	55	28	B	45
29	A	44	29	B	41
30	D	36	30	B	41

ANALYTICAL ABILITY					
Section 3		Section 6			
Number	Answer	P+	Number	Answer	P+
1	C	76	1	E	76
2	B	90	2	B	87
3	B	55	3	C	75
4	C	52	4	C	85
5	C	55	5	C	79
6	C	75	6	B	68
7	B	60	7	B	87
8	B	89	8	B	84
9	B	88	9	B	80
10	B	63	10	B	59
11	O	72	11	C	48
12	B	57	12	A	71
13	B	31	13	B	18
14	B	75	14	A	44
15	A	27	15	A	66
16	B	53	16	A	66
17	B	58	17	B	50
18	A	41	18	B	53
19	B	58	19	B	39
20	D	37	20	A	37
21	B	18	21	B	27
22	D	40	22	C	32
23	B	56	23	D	75
24	B	24	24	D	61
25	B	22	25	D	23

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.