

Test 15

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 is assumed that scientists will avoid making ----- claims about the results of their experiments because of the likelihood that they will be exposed when other researchers cannot ----- their findings.

(A) hypothetical. .evaluate
(B) fraudulent. .duplicate
(C) verifiable. .contradict
(D) radical. .contest
(E) extravagant. .dispute
2. As long as the nuclear family is ----- a larger kinship group through contiguous residence on undivided land, the pressure to ----- and thus to get along with relatives is strong.

(A) nurtured among. .abstain
(B) excluded from. .compromise
(C) embedded in. .share
(D) scattered throughout. .reject
(E) accepted by. .lead
3. In contrast to the substantial muscular activity required for inhalation, exhalation is usually a ----- process.

(A) slow
(B) passive
(C) precise
(D) complex
(E) conscious
4. The documentary film about high school life was so realistic and ----- that feelings of nostalgia flooded over the college-age audience.

(A) logical
(B) pitiful
(C) evocative
(D) critical
(E) clinical
5. Although Georgia O'Keeffe is best known for her affinity with the desert landscape, her paintings of urban subjects ----- her longtime residency in New York City.

(A) condemn
(B) obfuscate
(C) attest to
(D) conflict with
(E) contend with
6. Even though the survey was designated as an interdisciplinary course, it involved no real ----- of subject matter.

(A) encapsulation
(B) organization
(C) synthesis
(D) discussion
(E) verification
7. The failure of many psychotherapists to ----- the results of pioneering research could be due in part to the specialized nature of such findings: even ----- findings may not be useful.

(A) understand. .baffling
(B) envision. .accessible
(C) utilize. .momentous
(D) reproduce. .duplicated
(E) affirm. .controversial

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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. EARPLUG : NOISE ::
 - (A) saw : wood
 - (B) detonation : explosion
 - (C) clothes : covering
 - (D) liquid : flask
 - (E) shield : impact
9. REVISE : MANUSCRIPT ::
 - (A) retouch : picture
 - (B) replicate : experiment
 - (C) repair : hammer
 - (D) replace : book
 - (E) restore : masterpiece
10. DAREDEVIL : AUDACITY ::
 - (A) malcontent : dissatisfaction
 - (B) perfectionist : patience
 - (C) cynic : indiscretion
 - (D) melancholic : bitterness
 - (E) hedonist : ambition
11. CALCIUM : MINERAL ::
 - (A) sugar : carbohydrate
 - (B) salt : solution
 - (C) enzyme : food
 - (D) milk : cheese
 - (E) calorie : diet
12. DIRGE : GRIEF ::
 - (A) diatribe : uneasiness
 - (B) parody : cruelty
 - (C) paean : praise
 - (D) testimonial : veracity
 - (E) anthem : seriousness
13. ABANDON : INHIBITION ::
 - (A) ascendancy : effort
 - (B) prickliness : sensation
 - (C) surrender : resignation
 - (D) reversal : instigation
 - (E) tranquillity : agitation
14. INAUGURATION : OFFICIAL ::
 - (A) instruction : lecturer
 - (B) election : politician
 - (C) pilgrimage : devotee
 - (D) dispute : arbitrator
 - (E) matriculation : student
15. SCORN : REJECT ::
 - (A) adulate : flatter
 - (B) conjecture : forecast
 - (C) pledge : renege
 - (D) allege : declare
 - (E) disparage : ignore
16. PROFLIGATE : SOLVENT ::
 - (A) mercurial : committed
 - (B) caustic : rational
 - (C) indecisive : confused
 - (D) cautious : uncertain
 - (E) practical : seemly

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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 questions. Answer all questions following a passage on the basis of what is stated or implied in that passage.

As people age, their cells become less efficient and less able to replace damaged components. At the same time their tissues stiffen. For example, the lungs and the heart muscle expand less successfully, the blood vessels become increasingly rigid, and the ligaments and tendons tighten.

Few investigators would attribute such diverse effects to a single cause. Nevertheless, researchers have discovered that a process long known to discolor and toughen foods may also contribute to age-related impairment of both cells and tissues. That process is nonenzymatic glycosylation, whereby glucose becomes attached to proteins without the aid of enzymes. When enzymes attach glucose to proteins (enzymatic glycosylation), they do so at a specific site on a specific protein molecule for a specific purpose. In contrast, the nonenzymatic process adds glucose haphazardly to any of several sites along any available peptide chain within a protein molecule.

This nonenzymatic glycosylation of certain proteins has been understood by food chemists for decades, although few biologists recognized until recently that the same steps could take place in the body. Nonenzymatic glycosylation begins when an aldehyde group (CHO) of glucose and an amino group (NH₂) of a protein are attracted to each other. The molecules combine, forming what is called a Schiff base within the protein. This combination is unstable and quickly rearranges itself into a stabler, but still reversible, substance known as an Amadori product

If a given protein persists in the body for months or years, some of its Amadori products slowly dehydrate and rearrange themselves yet again, into new glucose-derived structures. These can combine with various kinds of molecules to form irreversible structures named advanced glycosylation end products (AGE's). Most AGE's are yellowish brown and fluorescent and have specific spectrographic properties. More important for the body, many are also able to cross link adjacent proteins, particularly ones that give structure to tissues and organs. Although no one has yet satisfactorily described the origin of all such bridges between proteins, many investigators agree that extensive cross-linking of proteins probably contributes to the stiffening and loss of elasticity characteristic of aging tissues.

In an attempt to link this process with the development of cataracts (the browning and clouding of the lens of the eye as people age), researchers studied the effect of glucose on solutions of purified crystallin, the major protein in the lens of the eye. Glucose-free solutions remained clear, but solutions with glucose caused the proteins to form clusters, suggesting that the molecules had become cross-linked. The clusters diffracted light, making the solution opaque. The researchers also

discovered that the pigmented cross-links in human cataracts have the brownish color and fluorescence characteristic of AGE's. These data suggest that nonenzymatic glycosylation of lens crystallins may contribute to cataract formation.

17. With which of the following statements concerning the stiffening of aging tissues would the author most likely agree?

- (A) It is caused to a large degree by an increased rate of cell multiplication.
- (B) It paradoxically both helps and hinders the longevity of proteins in the human body.
- (C) It can be counteracted in part by increased ingestion of glucose-free foods.
- (D) It is exacerbated by increased enzymatic glycosylation.
- (E) It probably involves the nonenzymatic glycosylation of proteins.

18. According to the passage, which of the following statements is true of the process that discolors and toughens foods?

- (A) It takes place more slowly than glycosylation in the human body.
- (B) It requires a higher ratio of glucose to protein than glycosylation requires in the human body.
- (C) It does not require the aid of enzymes to attach glucose to protein.
- (D) It proceeds more quickly when the food proteins have a molecular structure similar to that of crystallin proteins.
- (E) Its effectiveness depends heavily on the amount of environmental moisture.

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19. According to the passage, which of the following is characteristic of enzymatic glycosylation of proteins?
- (A) AGE's are formed after a period of months or years.
 - (B) Proteins affected by the process are made unstable.
 - (C) Glucose attachment impairs and stiffens tissues.
 - (D) Glucose is attached to proteins for specific purposes.
 - (E) Amino groups combine with aldehyde groups to form Schiff bases.
20. According to the passage, which of the following statements is true of Amadori products in proteins?
- (A) They are more plentiful in a dehydrated environment.
 - (B) They are created through enzymatic glycosylation.
 - (C) They are composed entirely of glucose molecules.
 - (D) They are derived from Schiff bases.
 - (E) They are derived from AGE's
21. Which of the following best describes the function of the third paragraph of the passage (lines 23-34)?
- (A) It offers evidence that contradicts the findings described in the first two paragraphs.
 - (B) It presents a specific example of the process discussed in the first two paragraphs.
 - (C) It explains a problem that the researchers mentioned in the second paragraph have yet to solve.
 - (D) It evaluates the research discoveries described in the previous paragraph.
 - (E) It begins a detailed description of the process introduced in the previous two paragraphs.
22. The passage suggests that which of the following would be LEAST important in determining whether nonenzymatic glycosylation is likely to have taken place in the proteins of a particular tissue?
- (A) The likelihood that the tissue has been exposed to free glucose
 - (B) The color and spectrographic properties of structures within the tissue.
 - (C) The amount of time that the proteins in the tissue have persisted in the body
 - (D) The number of amino groups within the proteins in the tissue
 - (E) The degree of elasticity that the tissue exhibits
23. If the hypothesis stated in lines 65-68 is true, it can be inferred that the crystallin proteins in the lenses of people with cataracts
- (A) have increased elasticity
 - (B) do not respond to enzymatic glycosylation
 - (C) are more susceptible to stiffening than are other proteins
 - (D) are at least several months old
 - (E) respond more acutely than other proteins to changes in moisture levels

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Writing of the Iroquois nation, Smith has argued that through the chiefs' council, tribal chiefs traditionally maintained complete control over the political affairs of both the Iroquois tribal league and the individual tribes belonging to the league, whereas the sole jurisdiction over religious affairs resided with the shamans. According to Smith, this division was maintained until the late nineteenth century, when the dissolution of the chiefs' council and the consequent diminishment of the chiefs' political power fostered their increasing involvement in religious affairs.

However, Smith fails to recognize that this division of power between the tribal chiefs and shamans was not actually rooted in Iroquois tradition; rather, it resulted from the Iroquois' resettlement on reservations early in the nineteenth century. Prior to resettlement, the chiefs' council controlled only the broad policy of the tribal league; individual tribes had institutions? most important, the longhouse? to govern their own affairs. In the longhouse, the tribe's chief influenced both political and religious affairs.

24. The primary purpose of the passage is to

- (A) question the published conclusions of a scholar concerning the history of the Iroquois nation
- (B) establish the relationship between an earlier scholar's work and new anthropological research
- (C) summarize scholarly controversy concerning an incident from Iroquois history.
- (D) trace two generations of scholarly opinion concerning Iroquois social institutions
- (E) differentiate between Iroquois political practices and Iroquois religious practices

25. It can be inferred that the author of the passage regards Smith's argument as

- (A) provocative and potentially useful, but flawed by poor organization
- (B) eloquently presented, but needlessly inflammatory
- (C) accurate in some of its particulars, but inaccurate with regard to an important point
- (D) historically sound, but overly detailed and redundant
- (E) persuasive in its time, but now largely outdated

26. The author of the passage implies that which of the following occurred after the Iroquois were resettled on reservations early in the nineteenth century?

- (A) Chiefs became more involved in their tribes' religious affairs.
- (B) The authority of the chiefs' council over the affairs of individual tribes increased.
- (C) The political influence of the Iroquois shamans was diminished.
- (D) Individual tribes coalesced into the Iroquois tribal league.
- (E) The longhouse became a political rather than a religious institution.

27. Which of the following best expresses an opinion presented by the author of the passage?

- (A) Smith has overstated the importance of the political role played by Iroquois tribal chiefs in the nineteenth century.
- (B) Smith has overlooked the fact that the Iroquois rarely allowed their shamans to exercise political authority.
- (C) Smith has failed to explain why the chiefs' council was dissolved late in the nineteenth century.
- (D) Smith has failed to acknowledge the role prior to the nineteenth century of the Iroquois tribal chiefs in religious affairs.
- (E) Smith has failed to recognize that the very structure of Iroquois social institutions reflects religious beliefs.

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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. DRONE :

- (A) behave bestially
- (B) decide deliberately
- (C) err intentionally
- (D) speak animatedly
- (E) plan inefficiently

29. CERTAINTY :

- (A) obstinacy
- (B) impetuosity
- (C) recklessness
- (D) indecision
- (E) indifference

30. MORIBUND :

- (A) fully extended
- (B) automatically controlled
- (C) loosely connected
- (D) completely dispersed
- (E) increasingly vital

31. PROFANE :

- (A) approach expectantly
- (B) punish mildly
- (C) appease fully
- (D) treat reverently
- (E) admonish sternly

32. PERSONABLE :

- (A) unrefined
- (B) unselfish
- (C) unattractive
- (D) uncommitted
- (E) undistinguished

33. MIRE :

- (A) straighten
- (B) fracture
- (C) extricate
- (D) elevate
- (E) augment

34. CONCEPTUAL :

- (A) proven
- (B) effective
- (C) manageable
- (D) concrete
- (E) punctilious

35. SURFEIT :

- (A) precise length
- (B) delayed increment
- (C) obtainable quantity
- (D) unascertained limit
- (E) insufficient supply

36. TENACITY :

- (A) vacillation
- (B) servility
- (C) temerity
- (D) perversity
- (E) diversity

37. APPOSITE :

- (A) irrelevant
- (B) nameless
- (C) tentative
- (D) disfavored
- (E) lavish

38. STYMIE :

- (A) ponder
- (B) predict
- (C) divulge
- (D) abet
- (E) explain

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