

1. Green ..... have the power to make food from substances found in the air and soil.

- (A) only plants                                    (B) plants alone  
(C) the only plants                                (D) plants are alone

2. The large compound eyes of the dragonfly ..... to see moving objects almost eighteen feet away.

- (A) to enable it                                    (B) enabling it  
(C) it enables                                        (D) enable it

3. Children with parents whose guidance is firm, consistent, and rational are inclined ..... high levels of self-confidence.

- (A) possess                                         (B) have possessed  
(C) to possess                                       (D) possess in

4. Writing pens are made in ..... of shapes, sizes, and colors.

- (A) endless variety an almost    (B) variety an almost endless  
(C) an almost endless variety    (D) almost variety an endless

5. Using many symbols makes ..... to put a large amount of information on a single map.

- (A) possible                                        (B) it possible  
(C) it is possible                                 (D) that possible

6. Anarchism is a term describing a cluster of doctrines and attitudes ..... principal uniting feature is the belief that government is both harmful and unnecessary.

- (A) and    (B) whose  
(C) since    (D) for

7. In his writing, John Crowe Ransom describes what ..... the spiritual barrenness of society brought about by science and technology.

- (A) he considers                                 (B) does he consider  
(C) considers                                        (D) considers it

8. After the great blizzard of 1888 in the northeastern United States, it took some ..... the snow away from their homes.

- (A) days to shovel people several      (B) people several days to shovel  
(C) several days people to shove      (D) people to shovel several days

9. Like other women ..... in the field of medicine, Sara Mayo found the beginning years difficult.

- (A) who they pioneered      (B) they pioneered  
(C) who pioneered      (D) pioneered

10. .... principal types of acceleration: linear and angular.

- (A) There are two      (B) Two of them  
(C) The two      (D) Two

11. Probably no man had more effect on the daily lives of most people in the United States ..... Henry Ford a pioneer in automobile production.

- (A) as was      (B) than was  
(C) than did      (D) as did

12. True hibernation takes place only among ..... animals.

- (A) whose blood is warm      (B) blood warm  
(C) warm-blooded      (D) they have warm blood

13. In copper engravings and etchings ..... caused by the edges of the plate is clearly visible on the paper.

- (A) the impression is      (B) if the impression  
(C) impressions      (D) the impression

14. East Liverpool, Ohio, ..... the pottery capital of the United States.

- (A) and called      (B) is called  
(C) calling      (D) to call

15. Coral reefs have always been ..... hazards to ships sailing in tropical seas.

- (A) one of the greatest      (B) the greatest ones  
(C) ones greatest      (D) the greatest were

16. The longest night of the year .....

- (A) known as Yalda (B) knowing as Yalda  
(C) it is known as Yalda (D) is known as Yalda

17. Margaret Fuller was not active in the women's-rights movement, but she asking for a fair chance for women in her book, Woman in the Nineteenth Century.

18. Most cities major in the United States have at least one daily newspaper.

19. The survival of a forest depends not only on the amount of annual rainfall it receives, and also on the seasonal distribution of the rain.

20. James Fanner, an American civil rights leader, he helped establish the Congress of Racial Equality, an organization that is dedicated to the principle of nonviolence.

21. A merger is a combination of two or more businesses down below a single management.

22. In its simplest form, a transformer is composed of two coils of wire place together without no wires actually in contact.

23. Whichever they may differ widely in function, all cells have a surrounding membrane and an internal, water-rich substance called cytoplasm.

24. Booker T. Washington, an educational leader, worked throughout the lifetime to improve economic conditions for Black people in the United States.

25. In the Middle Ages, books called bestiaries were prepared in an attempt to describe animals, real or imagine, that exemplified human traits.

26. Pumps can operate under pressures ranging between a fraction of a pound to more than 10,000 pounds per square inch.

27. Approximately fifty percent of the package utilized in the United States are for foods and beverages.

28. Whether as statesman, scientist, and philosopher, Benjamin Franklin was destined to gain lasting honor throughout much of the world.

29. A traditional Halloween decoration is a jack-o-lantern, which is a hollowed-out pumpkin with a scary face cut into them.

30. For a long time, cotton ranked first between Alabama's corps, but today it accounts for only a fraction of the agricultural production.

## **Reading**

### **Comprehension Passage 1**

Glass is a remarkable substance made from the simplest raw materials. It can be colored or colorless, monochrome or polychrome, transparent, translucent, or opaque. It is lightweight impermeable to liquids, readily cleaned and reused, durable yet fragile, and often very beautiful. Glass can be decorated in multiple ways and its optical properties are exceptional. In all its myriad forms – as table ware, containers, in architecture and design – glass represents a major achievement in the history of technological developments.

Since the Bronze Age, about 3,000 B.C., glass has been used for making various kinds of objects. It was first made from a mixture of silica, lime and an alkali such as soda or potash, and these remained the basic ingredients of glass until the development of lead glass in the seventeenth century. When heated, the mixture becomes soft and malleable and can be formed by various techniques into a vast array of shapes and sizes. The homogeneous mass thus formed by melting then cools to create glass, but in contrast to most materials formed in this way (metals, for instance), glass lacks the crystalline structure normally associated with solids, and instead retains the random molecular structure of a liquid. In effect, as molten glass cools, it progressively stiffens until rigid, but does so without setting up a network of interlocking crystals customarily associated with that process. This is why glass shatters so easily when dealt a blow. Why glass deteriorates over time, especially when exposed to moisture, and why glassware must be slowly reheated and uniformly cooled after manufacture to release internal stresses induced by uneven cooling.

Another unusual feature of glass is the manner in which its viscosity changes as it turns from a cold substance into a hot, ductile liquid. Unlike metals that flow or “freeze” at specific temperatures glass progressively softens as the temperature rises, going through varying stages of malleability until it flows like a thick syrup. Each stage of malleability allows the glass to be manipulated into various forms,

by different techniques, and if suddenly cooled the object retains the shape achieved at that point. Glass is thus amenable to a greater number of heat-forming techniques than most other materials.

1. Why does the author list the characteristics of glass in lines 1-7?  
(A) to demonstrate how glass evolved  
(B) to show the versatility of glass  
(C) to explain glassmaking technology  
(D) to explain the purpose of each component of glass
  
2. The word “durable” in line 4 is closest in meaning to .....  
(A) lasting (B) delicate  
(C) heavy (D) plain
  
3. What does the author imply about the raw materials used to make glass?  
(A) They were the same for centuries.  
(B) They are liquid.  
(C) They are transparent.  
(D) They are very heavy.
  
4. According to the passage, how is glass that has cooled and become rigid different from most other rigid substances?  
(A) It has an interlocking crystal network.  
(B) It has an unusually low melting temperature.  
(C) It has varying physical properties.  
(D) It has a random molecular structure.
  
5. The word “customarily” in line 18 is closest in meaning to .....  
(A) naturally (B) necessarily  
(C) usually (D) certainly
  
6. The words “exposed to” in line 20 are closest in meaning to .....  
(A) hardened by (C) subjected to  
(B) chilled with (D) deprived of
  
7. What must be done to release the internal stresses that build up in glass products during manufacture?  
(A) The glass must be reheated and evenly cooled.  
(B) The glass must be cooled quickly.

- (C) The glass must be kept moist until cooled.
- (D) The glass must be shaped to its desired form immediately.

8. The word “induced” in line 22 is closest in meaning to .....

- (A) joined
- (B) missed
- (C) caused
- (D) lost

9. The word “it” in line 24 refers to .....

- (A) feature
- (B) glass
- (C) manner
- (D) viscosity

10. According to the passage, why can glass be more easily shaped into specific forms than can metals?

- (A) It resists breaking when heated.
- (B) It has better optical properties.
- (C) It retains heat while its viscosity changes.
- (D) It gradually becomes softer as its temperature rises.

11. The word “remarkable”, in the first paragraph, is closest in meaning to .....

- (A) considerable
- (B) excusable
- (C) understandable
- (D) amicable

## Passage 2

It’s a sound you will probably never hear, a sickened tree sending out a distress signal. However, a team of scientists at the U.S. Department of Agriculture’s Forest Service has recently heard the cries, and they think some insects also hear the trees and are drawn to them like vultures attracted to a dying animal.

Researchers hypothesized that these sounds - actually vibrations produced by the surface of plants - were caused by a severe lack of moisture. They fastened electronic sensors to the bark of drought-stricken trees and clearly heard distress calls. According to one of the scientists, most parched trees transmit their plight in the 50- 500-kilohertz range. (The unaided human ear can detect no more than 20 kilohertz). They experimented on red oak, maple, white pine, aspen and birch and found that all make slightly different sounds. With practice, scientists could identify the species of tree by its characteristic sound signature.

The scientists surmise that the vibrations are created when the water columns inside tubes that run the length of the trees are cracked, a result of too little water following through them. These fractured columns send out distinctive vibration patterns. Because some insects communicate at ultrasonic frequencies, they may

pick up the trees' vibration and attack the weakened trees. Researchers are now running tests with potted trees that have been deprived of water to see if the sound is what attracts the insects. "Water-stressed trees also have a different smell from other trees, and they experience thermal changes, so insects could be responding to something other than sound", one scientist said.

1. Which of the following is the main topic of the passage?  
(A) the vibrations produced by insects  
(B) the mission of the U.S. Forest Service  
(C) the effect of insects on stress  
(D) the sounds made by trees
  
2. The word "them" in line 4 refers to .....  
(A) trees (B) scientists  
(C) insects (D) vultures
  
3. The word "parched" is closest in meaning to which of the following?  
(A) burned (B) dehydrated  
(C) recovered (D) damaged
  
4. The word "plight" is closest in meaning to .....  
(A) cry (B) condition  
(C) need (D) agony
  
5. It can be inferred from the passage that the sounds produced by the trees .....  
(A) serve as a form of communication among trees.  
(B) are the same no matter what type of tree produces them  
(C) cannot be heard by the unaided human ear  
(D) fall into the 1 - 20-kilohertz range
  
6. The word "fractured" is closest in meaning to .....  
(A) long (B) blocked  
(C) hollow (D) broken

7. Which of the following could be considered a cause of the trees' distress signals?

- (A) torn roots
- (B) attacks by insects
- (C) experiments by scientists
- (D) lack of water

8. The phrase "pick up" could best be replaced by which of the following?

- (A) perceive
- (B) lift
- (C) transmit
- (D) attack

9. All of the following are mentioned as possible factors in drawing insects to weakened trees EXCEPT .....

- (A) thermal changes
- (B) smells
- (C) sounds
- (D) changes in color

10. It can be inferred from the passage that research concerning the distress signals of trees .....

- (A) was conducted many years ago
- (B) has been unproductive up to now
- (C) is continuing
- (D) is no longer sponsored by the government