

**Questions 1–11**

Line (5) By the mid-nineteenth century, in addition to its natural resources, the United States had accumulated enough capital in the form of factories to productively employ a large amount of labor, or human resources. A nation that still consisted largely of independent farmers could not provide an adequate labor supply for heavy industrialization. But millions of new workers came to the United States from abroad.

(10) As we are all aware, not all these workers arrived voluntarily. Slaves were brought from Africa to the South; they were put to work on plantations to extract maximum harvests from the cotton fields. But in the North, the machines that turned that cotton into textiles were worked by massive waves of immigrants who came willingly from one part of Europe after another. This vastly expanded pool of labor allowed for large leaps in our national output.

(15) A nation cannot grow forever by finding more natural resources and attracting more workers; thus, a country's extensive growth will eventually slow. But intensive growth gradually appears as better use is made of the labor force. In the United States in the mid-nineteenth century many of the newly arrived immigrants were unskilled and illiterate, but the education policy of their new land meant that their children all received an education, and many were trained in a skill. If a society gives workers more knowledge, they will be able to use machines in a more complex way and to follow more complex instructions, yielding manufactured goods of greater value; this process is often known as investing in human capital. In the late twentieth century, our physical capital is so abundant and our natural resources so limited that we are beginning to appreciate the importance of improving our human resources if we are to continue to grow.

1. This passage mainly discusses the national output in terms of
  - (A) the labor force
  - (B) natural resources
  - (C) factories
  - (D) immigration
2. According to the passage, where did the necessary labor force for the nation's new industries come from?
  - (A) Unemployed farmers
  - (B) Other countries
  - (C) The North
  - (D) The South
3. We can infer from the passage (paragraph 2) that the South's contribution to the growth of industry in the mid-nineteenth century was mainly
  - (A) raw materials
  - (B) skilled labor
  - (C) manufactured goods
  - (D) industrial sites
4. The phrase "massive waves of immigrants" in line 10 of the passage means that
  - (A) many immigrants came by ship
  - (B) immigrant families stayed together
  - (C) groups of immigrants came at different times
  - (D) groups of immigrants were greeted enthusiastically

5. The phrase "This vastly expanded pool of labor" in lines 11 and 12 refers to
- (A) immigrant workers
  - (B) plantation owners
  - (C) independent farmers
  - (D) European investors
6. From the passage, which of the following can be inferred about the United States in the first half of the nineteenth century?
- (A) It was producing large amounts of manufactured goods.
  - (B) It was largely agricultural.
  - (C) It was fully industrialized.
  - (D) It was low in natural resources.
7. We can infer from the passage that intensive growth of a nation's economy requires
- (A) expansion of resources
  - (B) better use of the labor force
  - (C) attracting unskilled labor
  - (D) limiting the human resources
8. The word "leaps" in line 12 is closest in meaning to
- (A) reports
  - (B) gains
  - (C) initiatives
  - (D) investments
9. According to the passage, what is the end goal of an investment in human capital?
- (A) Providing more valuable manufactured goods
  - (B) Educating immigrant families
  - (C) Training in use of complex machines
  - (D) Developing literacy for all
10. We can infer from the passage (paragraph 3) that in the mid-nineteenth century the United States placed a high value on
- (A) European trade
  - (B) education
  - (C) agriculture
  - (D) development of natural resources
11. What device is the author using to present the information in lines 19–22?
- (A) anecdote
  - (B) cause and effect
  - (C) comparison
  - (D) restatement

### Questions 12–20

- The log cabin, along with coonskin cap and Kentucky rifle, conjures up images of rugged pioneer days. Simple one-room dwellings of logs, notched together at the corners, were introduced to America around 1638 by Swedish settlers in Delaware. Subsequently, German and Scotch Irish immigrants, as well as Russian explorers along the western coast and in Alaska, introduced their own forms of log construction. During the great westward expansion that began in the late 1700s, the log cabin was practically ubiquitous in timber-rich frontier areas; it could be built with only the aid of an axe, and required no costly nails. Intended to serve merely as way stations in the wilderness, cabins rarely became permanent homes. When families desired better housing with more amenities, they either abandoned their cabins (often to be occupied by new transients), incorporated them into larger dwellings, converted them into storage facilities, or in the South, used them as slave quarters.
- Line (5)
- (10)

- (15) The myth of the log cabin as the sacrosanct birthplace of leaders, renowned for their honesty, humility, and other virtues, was inaugurated during the presidential campaign of 1840, when William Henry Harrison was touted throughout the country as a hard-cider-swigging bumpkin who lived in a log cabin. His landslide victory over Martin Van Buren set a precedent for future presidential aspirants, but only a few such as "Honest Abe" Lincoln had bona fide claims to humble origins.

(20) In the present day, the log cabin appears on such memorabilia as coins and postage stamps, and it is also the brand name of a popular syrup. The cabin is perpetuated architecturally in resorts, camps, inns, and restaurants along byways and highways.

12. According to the passage, who first introduced the log cabin structure in America?  
(A) Russians in Alaska  
(B) Pioneers in Kentucky  
(C) Swedes in Delaware  
(D) Germans in the West
13. We can infer from the passage that the log cabin originally  
(A) was intended as a temporary home  
(B) was comfortable and spacious  
(C) was sold for large sums of money  
(D) demonstrated the art of fine woodworking
14. The author implies that during the westward expansion the log cabin house  
(A) diminished in popularity  
(B) flourished  
(C) became too costly  
(D) required specialized tools
15. According to the passage, which of the following did NOT happen when people moved into more luxurious housing?  
(A) The cabin was abandoned.  
(B) The cabin was sold for a high price.  
(C) The cabin became part of a new home.  
(D) The cabin was used for storage.
16. The word "amenities" in line 10 is closest in meaning to  
(A) conveniences  
(B) space  
(C) children  
(D) storage
17. The "myth of the log cabin" (paragraph 2) capitalizes on which of the following features of the house form?  
(A) Its simplicity  
(B) Its size  
(C) Its design  
(D) Its landscaping
18. We can infer from the passage that after the presidential election of 1840  
(A) wealth and social position became a positive campaign issue  
(B) other presidential candidates professed to have lived in log cabins  
(C) election campaigns were more honest  
(D) people voted for a candidate based on his political party
19. Why does the author mention William Henry Harrison in the passage?  
(A) As an example of an honest man  
(B) As an example of an underqualified candidate  
(C) To show how the log cabin myth began  
(D) To contrast his success with the defeat of Martin Van Buren
20. The author of the passage suggests that the log cabin house form has been  
(A) forgotten  
(B) romanticized  
(C) disparaged  
(D) simplified

## Questions 21–31

Line During the early twentieth century, there was a core of radical American  
(5) artists who devoted themselves to exploring the potentials of modernism. Chief among them was Georgia O’Keeffe, the most famous woman artist of our time, who is best known for her dramatic paintings of gigantic flowers and sun-bleached desert bones.

(10) A native of Wisconsin, O’Keeffe studied there, in Virginia, at the Art Institute of Chicago, and New York’s Art Students’ League, and then earned her living as a public-school art teacher in Virginia and Texas. In 1915, at the age of twenty-eight, O’Keeffe arranged around her room all the art that she had produced so far, to evaluate it. Condemning each work as derivative, she destroyed them all, embarking on an entirely new series that she hoped would reflect only herself. The next year O’Keeffe sent some of her new work—remarkably spare, totally abstract charcoal drawings—to Anita Pollitzer, a friend living in New York. Pollitzer, impressed with the work, took the drawings to Alfred Stieglitz, the  
(15) noted photographer, editor, dealer, and one of America’s foremost promoters of modernist art. Stieglitz was also impressed; he became O’Keeffe’s dealer, and later her husband. With Stieglitz’s support and the help of positive reviews and significant sales, O’Keeffe was able to devote herself to painting: New York City scenes at night, at a time when the skyscrapers were brand-new; rural  
(20) landscapes seen during summers at Lake George in upstate New York; and, finally, the blossoms and bones for which she became famous.

By 1916 O’Keeffe was producing totally abstract drawings and water colors, many based on a series of simple lines and curved shapes. But she is known to  
(25) far more viewers for her close-ups of flowers: red poppies, black irises, green orchids, pink-spotted lilies. Many theories have been advanced about the underlying meanings of these pictures. Much has been made of the “female qualities” of her blossoms; O’Keeffe, however, always denied that there was any symbolism, sexual or otherwise, in her flower paintings. She claimed that their size was inspired by the skyscrapers being built all over New York and that  
(30) what really interested her in a subject was not the flower, or the skulls, or the mountain, but the colors and shapes she saw as she looked at them.

21. The word “core” in line 1 is closest in meaning to  
(A) class  
(B) neighborhood  
(C) structure  
(D) nucleus
22. According to the passage, what type of painter was Georgia O’Keeffe?  
(A) A portraitist  
(B) A miniaturist  
(C) A modernist  
(D) An expressionist
23. According to the passage, O’Keeffe is best known for her paintings of  
(A) objects  
(B) deserts  
(C) women  
(D) night scenes

24. According to the passage, why did O’Keeffe destroy her work in 1915?  
 (A) She needed more space in her room.  
 (B) She was unhappy with the medium in which she had been working.  
 (C) She wanted to produce larger paintings.  
 (D) She felt that her work up to this point was not original.
25. Why does the author cite Anita Pollitzer in the passage?  
 (A) She was a noted art dealer.  
 (B) She introduced O’Keeffe’s work to Stieglitz.  
 (C) She was a patron of O’Keeffe.  
 (D) She was an acquaintance of O’Keeffe.
26. In line 12, the word “spare” is closest in meaning to  
 (A) excessive  
 (B) liberated  
 (C) simple  
 (D) modern
27. We can infer from the passage that O’Keeffe’s new work promoted by Stieglitz  
 (A) was well-received by the public  
 (B) went relatively unnoticed  
 (C) was criticized as too modern  
 (D) dealt only with the subject of flowers
28. The phrase “devote herself to painting” in line 18 means that O’Keeffe  
 (A) took lessons to improve her technique  
 (B) took new interest in her painting  
 (C) spent all of her time painting  
 (D) marketed her paintings more vigorously
29. According to the passage, O’Keeffe felt that her paintings of flowers had been influenced by all of the following EXCEPT  
 (A) female qualities  
 (B) the size of the New York skyscrapers  
 (C) colors  
 (D) shapes
30. The word “their” in line 28 refers to  
 (A) the flower, the skulls, and the mountain  
 (B) the colors and shapes  
 (C) the skyscrapers  
 (D) her flower paintings
31. What is the author’s attitude toward modernist painting in the passage?  
 (A) Very enthusiastic  
 (B) Neutral  
 (C) Critical  
 (D) Somewhat negative

### Questions 32–42

Decades of observation combined with the revelations of nuclear theory have allowed modern astronomers to make out the simple scheme underlying the stellar universe. Each kind of star—and there are hundreds of types—represents a temporary phase in a standard life cycle. With a few adjustments, this cycle applies to every star known. All stars, for example, begin as protostars, concentrations of luminous gas found within far larger and more diffuse clouds of dust and gas. Collapsing inward under its own gravity, a protostar heats and compresses its core until hydrogen-fusion reactions ignite. At this point, the star is considered to be on the main sequence, a reference to the observed concentration of most stars on a diagonal track, or sequence, within the diagram of stellar properties. Many stars remain on the main sequence for billions of years. But for each, there comes a time when its hydrogen supply runs out, causing the star to undergo further evolution.

- (15) A star's mass controls the onset of this crisis. Low-mass stars, for example, have correspondingly low gravity, which allows them to fuse hydrogen very slowly and stay on the main sequence almost indefinitely; high-mass stars have such high gravity, and thus such rapid reactions, that they consume their own much greater hydrogen stocks within a few tens of millions of years. After the hydrogen is gone, mass dictates how each star changes. The smallest simply consume the dregs of their fuel and wink out. Mid-size stars like the Sun go through a bewildering variety of changes, including a high-energy helium flash, before turning to white dwarfs. The most massive stars rush through an intricate series of fusion reactions before suffering a final spectacular collapse. The twists and turns of stellar development are chronicled by astronomers as they study the life-span of the stars.

32. What does this passage mainly discuss?  
 (A) The size of stars  
 (B) The charting of characteristics of stars  
 (C) Protostars  
 (D) The life cycle of stars
33. The word "stellar" in line 3 is closest in meaning to  
 (A) complete  
 (B) star-filled  
 (C) outstanding  
 (D) large
34. According to the passage, protostars are  
 (A) larger than most stars  
 (B) the most important stars in the galaxy  
 (C) the initial stage of a star's cycle  
 (D) clouds of dust and gas
35. The word "diffuse" in line 6 is closest in meaning to  
 (A) not concentrated  
 (B) colorful  
 (C) low-lying  
 (D) different
36. At what point is a star considered to be on the main sequence?  
 (A) When it reaches a certain size  
 (B) After the hydrogen-fusion ignition  
 (C) When scientists can see it  
 (D) When the dust has settled
37. We can infer from the passage that further evolution of a star occurs  
 (A) after a billion years  
 (B) when it reaches a certain mass  
 (C) when its hydrogen supply is depleted  
 (D) when it comes to the end of its track
38. The word "consume" in line 17 is closest in meaning to  
 (A) make  
 (B) use up  
 (C) radiate  
 (D) waste
39. Which of the following factors determines how stars change when they have used up their supply of hydrogen?  
 (A) Heat  
 (B) Mass  
 (C) Weight  
 (D) Age
40. According to the passage, which type of star would you expect to last the longest on the main sequence?  
 (A) Low-mass stars  
 (B) High-mass stars  
 (C) Mid-size stars  
 (D) Protostars
41. The Sun is expected to exhibit all the characteristics EXCEPT  
 (A) to be a mid-size star  
 (B) to experience a helium-flash  
 (C) to wink out  
 (D) to become a white-dwarf star
42. The passage supports all of the following statements EXCEPT  
 (A) All stars follow a similar life cycle.  
 (B) Hydrogen is an essential element in determining the life cycle of a star.  
 (C) High-mass stars have correspondingly high gravity.  
 (D) The Sun is considered to be one of the most massive stars.



### Questions 43–50

Line People have been playing with marbles for thousands of years. The first  
(5) marbles were probably either river stones that happened to be naturally round  
enough to roll or, more likely, rounded globs of clay that were baked for  
hardness. Such very old clay marbles have been found in both Greek and Roman  
ruins, and quartzite spheres have been dated at around 6000 B.C.

(10) Harder and more durable marbles tend to inspire different kinds of games  
than soft clay marbles, which crack very easily. So with the advent of hand-  
rounded and polished marbles made of agate or some other rugged, igneous  
rock, the “golden age” of marbles and marble play flowered.

(15) Stone marbles began to appear in the early 1800s in what is now the southern  
part of Germany. Shortly after, handmade glass marbles appeared in the same  
part of Europe. For the next 120 years, marbles and marble playing—there were  
literally hundreds of games—flourished in both Europe and America.

(17) Marble players developed their own vocabulary for different sizes and  
materials of marbles, as well as for the many kinds of games to be played and  
the way marbles were used in the games. For example, if you were going to play  
a game of Ring-Taw, one of the most popular and enduring marble games, you  
would lag for the first shot, and then knuckle down from the baulk, trying your  
best to get a nub or two with your opponent’s immie.

43. The author makes the point in the passage that playing with marbles  
(A) has been going on since ancient times  
(B) is a relatively recent phenomenon  
(C) is losing popularity  
(D) is a very expensive pastime
44. According to the passage, which of the following was the least durable substance for making marbles?  
(A) Agate  
(B) Rock  
(C) Glass  
(D) Clay
45. The word “durable” in line 6 is closest in meaning to  
(A) sturdy  
(B) colorful  
(C) economical  
(D) massive
46. The word “inspire” in line 6 is closest in meaning to  
(A) instruct  
(B) motivate  
(C) relinquish  
(D) heighten
47. It can be inferred from the passage that the use of marbles became very popular in Europe and America  
(A) in the 18th century  
(B) in 6000 B.C.  
(C) in the 1970s  
(D) after glass marbles were developed
48. We can infer from the passage that marble playing  
(A) is a game only for children  
(B) has many variations in games  
(C) is played according to one set of rules  
(D) uses only one kind of marble
49. It can be concluded from lines 17–19 of the passage that the terminology of marble playing is  
(A) specialized  
(B) easy to understand  
(C) used only by children  
(D) derived from an ancient language
50. The word “enduring” in line 17 is closest in meaning to  
(A) developed  
(B) long-lasting  
(C) engaging  
(D) challenging