# Reading

### Text 1

### Questions 1-10

Over the centuries, scholars and inventors have proposed machines that would far transcend human expectations. There is always the chance that a future technological breakthrough will facilitate the transformation of such technological dreams into reality. However, among these technological dreams, there are ideas for machines that future technological developments cannot make possible because these ideas violate fundamental scientific laws.

Perpetual-motion devices are probably the best known of such impossible machines. For more than fifteen hundred years, inventors have offered plans for, and actually built, machines that, given proper construction, materials, and lubrication, were supposed to operate forever. Such devices were often expected to do useful work and to generate more energy than was required merely to keep them running.

The classic version of a perpetual-motion device is a wheel that spins continuously upon its axle without the aid of an external power source. A self-moving wheel is described in the ancient South Asian treatise Siddhanta-Ciromani (A.D. 400-450), and a thirteen-century illustration of one appears in the sketchbook of Villard de Honnecourt of France. In Villard's device an uneven number of mallets hang loosely from the rim of the vertically mounted wheel. They are spaced so that the wheel is constantly unbalanced and therefore always moving.

The European Renaissance, which first witnessed so many other manifestations of technological fantasy, was a popular time for the invention of perpetual-motion devices. Often quite elaborate in conception, there might utilize water, wair, or the force of gravity, and all were designed as closed cycle operations; for example, the energy generated by a continuous stream of water flowing over a waterwheel would be used to power the pump that lifted the water up and the waterwheel, and so on endlessly. Along with unceasing motion, some inventors also promised the production of excess energy that could be used to run the machinery in a flour mill or serve some other useful purpose. The promise of the boon to humankind of unlimited free power combined with the tremendous challenge of getting the device to work in the first place made perpetual motion an exciting venture for many technologists.

- 1-What does the passage mainly discuss?
  - A. The history of interest in a type of machine
  - B. Machines that have benefited humanity
  - C. Technological fantasies that have become reality
  - D. Advances in energy production technology

- 2- The author calls some machines "impossible" because they
  - A. cannot be controlled by anyone
  - B. are too complicated to build
  - C. require materials that are too expensive to be practical
  - D. are inconsistent with the basic laws or science
- 3- Which of the following is NOT mentioned in the second paragraph as one of the considerations in the building of a perpetual-motion machine?
  - A. The quality of the construction
  - B. Materials
  - C. Lubrication
  - D. The source of energy
- 4- The word "generate" is closest in meaning to
  - A. indicate
  - B. guarantee
  - C. produce
  - D. use
- 5- The word "external" is closest in meaning to
  - A. strong
  - B. outside
  - C. positive
  - D. efficient
- 6- The word "one" refers to
  - A. power source
  - B. self-moving wheel
  - C. treatise
  - D. illustration
- 7- How were the mallets expected to help keep the wheel in continuous motion?
  - A. They struck the wheel with great force.
  - B. They maintained the vertical position of the wheel.
  - C. They initiated the release of lubricant.
  - D. They kept the wheel unbalanced
- 8- The word "manifestations" is closest in meaning to
  - A. examples
  - B. conclusions
  - C. repairs
  - D. profits
- 9- The waterwheel is the fourth paragraph as an example of
  - A. a machine that was in common use during the Renaissance
  - B. a design for a perpetual-motion machine
  - C. a machine with a long history of use
  - D. an economical machine for powering a flour mill

- 10- The word "excess" is closest in meaning to
  - A. transformed
  - B. inexpensive
  - C. controlled
  - D. surplus

### Questions 11-21

Although we often accept film music without question and sometimes even without noticing it, this does not mean that its contribution to the film experience is insignificant. Music has a tremendous effect on our response, greatly enriching and enhancing our overall reaction to almost any film. It accomplishes this in several ways: by reinforcing or strengthening the emotional content of the image, by stimulating the Imagination and the kinetic sense, and by suggesting and expressing emotions that cannot be conveyed by pictorial means alone.

Because music has a direct and very significant effect on our reaction to film, the term "background music," which is so often applied to the musical score, is a misnomer. Music actually functions as an integral or complementary element. In spite of its direct effect on us, however, there is general critical agreement that the role of music in film should be a subordinate one.

Two schools of thought exist on the proper degree of this subordination. The older, traditional view is that the best film music performs its various functions without making us consciously aware of its presence. In other words, if we do not notice the music, It is a good score. Therefore, the music for a "good" score should not be too good, for really good music draws attention to itself and away from the film.

The modern view, by contrast, allows the music, on appropriate occasions, not only to demand our conscious attention but even to dominate the picture, so long as it remains essentially integrated with the vital, dramatic, and rhythmic elements of the film as a whole. At such moments, we may become conscious of how intrinsically beautiful the music is, though we should not be so moved that we lose sight of its appropriateness to the image on the screen. Both modern and traditional views are therefore in agreement on one essential point: music that calls too much attention to itself at the expense of the film as a whole is not effective.

- 11- What does the passage mainly discuss?
  - A. The appropriate role of music in film
  - B. Emotional responses that people have to film
  - C. The history of film music
  - D. How music produces an emotional response
- 12- The word "overall" is closest in meaning to
  - A. general
  - B. actual
  - C. positive
  - D. immediate

- 13- According to the first paragraph, all of the following are primary functions of film music EXCEPT
  - A. enhancing the viewer's emotional response to the image
  - B. developing the viewer's appreciation of music
  - C. suggesting emotions that images alone cannot communicate
  - D. aiding the viewer's imagination
- 14- The author indicates that the term "background music" is wrong for describing film music because
  - A. film audiences focus on the picture rather than on the music
  - B. film critics disagree on the meaning of the term
  - C. music directly influences our reactions to fim
  - D. music for film is not the only kind of background music
- 15- The word "subordinate" is closest in meaning to
  - A. lesser
  - B. mental
  - C. creative
  - D. particular
- 16- The word "proper" is closest in meaning to
  - A. wide
  - B. extreme
  - C. increasing
  - D. correct
- 17- By suggesting that film music can sometimes be too good, the author means that
  - A. the music is the most important part of the film
  - B. film music is generally of superior quality
  - C. great effort should be put into writing film music because otherwise the viewer might not take much notice of it
  - D. good music might shift the viewer's focus from the film to the music
- 18- The author organizes the discussion in the third and fourth paragraphs according to
  - A. types of film that benefit from the addition of a musical score
  - B. points of view on the role of film music
  - C. reasons that viewers have emotional responses to film and music
  - D. types of musical styles used in film
- 19- The word "it" refers to
  - A. film
  - B. attention
  - C. music
  - D. modern view

- 20- The phrase "lose sight of" is closest in meaning to
  - A. forget
  - B. exaggerate
  - C. believe
  - D. reject
- 21- According to the fourth paragraph, which of the following statements reflects the modern view of film music?
  - A. Film music should not draw our direct attention.
  - B. Music for the film should be created before the images are filmed
  - C. Film music should fit well with other elements of the film.
  - D. Film music should be independent of the film as a whole

## Questions 22-30

In the temperate climate zone, mixed-species flocks of birds are mostly a winter phenomenon, occurring after the breeding season, when territorial boundaries are no longer observed. In some wooded areas of North America, for example, chickadees, titmice, nuthatches, Kinglets, brown creepers, and woodpeckers travel together in loose flocks, and while the mix is different in the tropics, the underlying principles are the same. Ecologists who have studied mixed flocks believe they offer a number of advantages over single-species aggregations--better detection of predators, for instance, combined with minimal competition owing to species-specific foraging techniques.

Every species in a mixed flock has a preferred food and a specialized hunting method. The acrobatic chickadees hang upside down from branches, peering into cracks and crevices for hibernating arthropods (small invertebrates, including Insects) or egg masses, while the tiny Kinglets flit and hover at the very tips of the twigs, where heavier birds cannot reach. Downy woodpeckers work their way up the trunks and nuthatches go down, headfirst, each finding food that the other missed. The creepers, like the woodpeckers, ascend the tree in a spiral, but they pay particular attention to the spaces between bark flakes, while the woodpeckers, with their sturdier bills and barbed, spearlike tongues, focus on bugs hidden deeper inside the tree trunk. Species in mixed flocks often seek the same foods, but the ways in which they look, and where they look, are different.

Mixed-species flocks reach their greatest expression in the tropics, especially in the Amazon Basin, where as many as six dozen species have been seen in a single gathering. Each flock is made up of subsets of birds, each with its own role to play. At the core is one or more nucleus species," as they are known, usually a mated pair or a family group; by their behavior and calls, they hold the flock together, setting the pace for the group and providing cohesion. They are joined by what ecologists call attendant species, some staying with the flock almost full-time, others following for a few hours but then dropping out, and still others joining only briefly while the flock is traversing their territory.

# 22- What does the passage mainly discuss?

- A. The benefits and social structure of mixed-species flocks
- B. The mating and breeding habits of mixed-species flocks
- C. The ways in which mixed-species flocks protect themselves from predators
- D. The effects of flock size on the foraging techniques of mixed-species flocks

- 23- It can be inferred from the first paragraph that birds in the temperate zone are NOT likely to form mixed-species flocks during which of the following times?
  - A. During the winter
  - B. While the birds are traveling in wooded areas
  - C. During the mating season
  - D. When predators are nearby
- 24- According to the first paragraph, all of the following are true of mixed-species flocks EXCEPT:
  - A. They can form in the temperate zone
  - B. They sometimes include titmice.
  - C. They sometimes inhabit wooded areas
  - D. They are usually tightly grouped
- 25- According to the passage, one advantage mixed flocks have over single-species flocks is that mixed flocks
  - A. have less difficulty finding nesting sites
  - B. are more effective in detecting predators
  - C. are better able to defend their territories
  - D. have a longer breeding season
- 26- The phrase "owing to" is closest in meaning to
  - A. because of
  - B. in spite of
  - C. as well as
  - D. compared to
- 27- According to the second paragraph, where on a tree do kinglets look for food?
  - A. At places where the tree trunk divides
  - B. In the spaces between bark flakes
  - C. Deep within the tree trunk
  - D. On the outer edges of the smallest tree branches
- 28- The word "they" refers to
  - A. mixed-species flocks
  - B. tropics
  - C. one or more "nucleus species"
  - D. behavior and calls
- 29- The word "cohesion" is closest in meaning to
  - A. assistance
  - B. experience
  - C. protection
  - D. unity

- 30- The third paragraph supports which of the following statements about the attendant species in a mixed-species flock?
  - A. They establish the rate at which the flock travels
  - B. They use sounds to keep the flock together.
  - C. They sometimes join the flock temporarily.
  - D. They often compete for control of the flock.

### Questions 31-41

The city of Chicago, Illinois, is well known for its many works of public art, including statues, sculptures, and hundreds of murals painted on walls. Surprisingly, most Chicago murals were painted during the Great Depression (an economic crisis In the 1930s so severe that by 1932 roughly 25 percent of the country's work force was unemployed). This came about because in 1933 President Franklin Roosevelt, responding to the crisis, formulated a sweeping legislative program called the "New Deal," its most important mission being to put people to work. As part of the New Deal, the federal (national) government became the major sponsor of public art. One of its programs, the Federal Art Project (FAP), which started in 1935, was the largest such program ever attempted. From 1935 to 1943, the FAP developed projects in art, theater, music, and writing. Roughly 5,000 artists nationwide created some 108,000 paintings, 17,700 sculptures, and 2,500 murals.

The Illinois arm of the FAP, the Illinois Art Project, based in Chicago, put 300 qualified but unemployed artists and even more assistants to work decorating public buildings. Muralists were directed to focus on the American scene," to speak directly to the people, and to reflect a faith in the future. Most murals were done in a naturalistic style, and there was very little abstraction. Of the roughly 200 murals in greater Chicago, about two-thirds have survived. Some were painted over and will be restored.

Chicago's mural renaissance was in fact launched one year before the FAP. In 1934, the United States Treasury Department created a program for the decoration of new federal buildings, which often meant post offices. It was funded by one percent of the overall construction budget and selected its artists through competitions in which the artists remained anonymous. Today, the government continues to fund art for new public buildings and spaces, with "Percent for Art" programs. The program in Chicago, created by the city in 1978 and now called the Chicago Department of Cultural Affairs Public Art Program, is credited with over 400 works of art in police stations, firehouses, libraries, and transportation and health centers.

# 31- What does the passage mainly discuss?

- A. President Roosevelt's influence on the Federal Art Project
- B. A contemporary plan to create an art program similar to those from the 1930s
- C. The decline of public funding for the arts after the 1930s
- D. Government funding of public art in the city of chicago

- 32- by using the word "Surprisingly", the author implies that
  - A. the city of Chicago is not particularly known for its
  - B. an economic crisis is normally not the best time to fund art
  - C. the city of Chicago has gone through many economic crises
  - D. most of Chicago's statues and sculptures were not created during the 1930s
- 33- The word "formulated" is closest in meaning to
  - A. designed
  - B. supported
  - C. managed
  - D. demanded
- 34- According to the first paragraph, what was the primary purpose of the New Deal?
  - A. To support the Federal Art Project
  - B. To train artists
  - C. To create employment
  - D. To stimulate building construction in Chicago
- 35- The word "sponsor" is closest in meaning to
  - A. creator
  - B. subject
  - C. beneficiary
  - D. supporter
- 36- The word "qualified" is closest in meaning to
  - A. careful
  - B. famous
  - C. capable
  - D. interested
- 37- According to the second paragraph, what is planned for some of Chicago's murals that have survived since the 1930s?
  - A. They will serve as models for new murals.
  - B. They will be stored and displayed in a museum.
  - C. They will be moved back to the original buildings.
  - D. The paint that covers them will be taken off.
- 38- The word "launched" is closest in meaning to
  - A. started
  - B. funded
  - C. encouraged
  - D. proposed

- 39- Which of the following can be inferred from the final paragraph about the Treasury Department's program of decorating federal buildings?
  - A. The names of most artists who created the decorations are well known.
  - B. Many post offices built in the 1930s were decorated with murals and other art.
  - C. Buildings built on the smallest budgets could afford the best art
  - D. The decorations were usually designed by the same person who designed the building
- 40- The word "It" refers to
  - A. Chicago's mural renaissance
  - B. a program
  - C. the United States Treasury Department
  - D. the FAP
- 41- Why does the author mention police stations, firehouses, libraries, and transportation and health centers"?
  - A. To demonstrate the severity of the economic crisis of the 19305
  - B. To provide examples of sources of funding for public art
  - C. To provide examples of buildings that still have murals from the 1930s
  - D. To demonstrate the broad impact of the Chicago Department of Cultural Affairs Public Art Program

## Questions 42-50

The first peoples to inhabit what today is the southeastern United States sustained themselves as hunters and gatherers. Sometime early in the first millennium A.D., however, they began to cultivate corn and other crops. Gradually, as they became more skilled at gardening, they settled into permanent villages and developed a rich culture, characterized by the great earthen mounds they erected as monuments to their gods and as tombs for their distinguished dead. Most of these early mound builders were part of the Adena-Hopewell culture, which had its beginnings near the Ohio River and takes its name from sites in Ohio. The culture spread southward into the present-day states of Louisiana, Alabama, Georgia, and Florida. Its peoples became great traders, bartering jewelry, pottery, animal pelts, tools, and other goods along extensive trading networks that stretched up and down eastern North America and as far west as the Rocky Mountains

About AD. 400, the Hopewell culture fell into decay. Over the next centuries, it was supplanted by another culture, the Mississippian, named after the river along which many of its earliest villages were located. This complex civilization dominated the Southeast from about AD.700 until shortly before the Europeans began arriving In the sixteenth century. At the peak of its strength, about the year 1200, it was the most advanced culture in North America. Like their Hopewell predecessors, the Mississippians became highly skilled at growing food, although on a grander scale. They developed an improved strain of corn, which could survive in wet soil and a relatively cool climate, and also learned to cultivate beans. Indeed, agriculture became so important to the Mississippians that it became closely associated with the Sun-the guarantor of good crops. Many tribes called themselves "children of the Sun" and believed their omnipotent priest-chiefs were descendants of the great sun god

Although most Mississippians lived in small villages, many others inhabited large towns. Most of these towns boasted at least one major flat-topped mound on which stood a temple that contained a sacred flame. Only priests and those charged with guarding the flame could enter the temples. The mounds also served as ceremonial and trading sites, and at times they were used as burial grounds.

### 42- What does the passage mainly discuss?

- A. The development of agriculture
- B. The locations of towns and villages
- C. The early people and cultures of the United States
- D. The construction of burial mounds

- 43- Which of the following resulted from the rise of agriculture in the southeastern United States?
  - A. The development of trade in North America
  - B. The establishment of permanent settlements
  - C. Conflicts with other Native American groups over land
  - D. A migration of these peoples to the ROcKy Mountains
- 44- What does the term Adena-Hopewell designate?
  - A. The early locations of the Adena-Hopewell culture
  - B. The two most important nations of the Adena Hopewell culture
  - C. Two former leaders who were honored with large burial mounds
  - D. Two important trade routes in eastern North America
- 45- The word "bartering" is closest in meaning to
  - A. producing
  - B. exchanging
  - C. transporting
  - D. loading
- 46- According to the passage, when did the Mississippian culture reach its highest point of development?
  - A. About A.D. 400
  - B. Between A.D. 400 and A.D. 700
  - C. About A.D. 1200
  - D. In the sixteenth century
- 47- According to the passage, how did the agriculture of the Mississippians differ from that of their Hopewell predecessors?
  - A. The Mississippians produced more durable and larger crops of food.
  - B. The Mississippians sold their food to other groups
  - C. The Mississippians could only grow plants in warm, dry climates.
  - D. The Mississippians produced special foods for their religious leaders.
- 48- Why does the author mention that many Mississipian tribes called themselves children of the sun?
  - A. To explain why they were obedient to their priest chiefs
  - B. To argue about the importance of religion in their culture
  - C. To Illustrate the great importance they placed on agriculture
  - D. To provide an example of their religious rituals
- 49- The phrase "charged with" is closest in meaning to
  - A. passed on
  - B. experienced at
  - C. interested in
  - D. assigned to

50- According to the passage, the flat-topped mounds in Mississippian towns were used for all of the following purposes EXCEPT

- A. religious ceremonies
- B. meeting places for the entire community
- C. sites for commerce
- D. burial sites