8 Authentic *TOEFL iBT*® Practice Test 3

In this chapter you will find the third of four authentic *TOEFL iBT*® Practice Tests. You can take the test in two different ways:

- **In the book:** You can read through the test questions in the following pages, marking your answers in the spaces provided. To hear the listening portions of the test, follow instructions to play the numbered audio tracks that accompanies this book.

- **On your computer:** For a test-taking experience that more closely resembles the actual TOEFL iBT test, you can take this same test on your computer using the digital download (see code in the back of the book.) Reading passages and questions will appear on-screen, and you can enter your answers by clicking on the spaces provided. Follow instructions to hear the listening portions of the test.

Following this test, you will find answer keys and scoring information. You will also find scripts for the listening portions. Complete answer explanations, as well as sample test taker spoken responses and essays, are also provided.

TOEFL iBT® Practice Test 3

READING

This section measures your ability to understand academic passages in English. You will have **54 minutes** to read and answer questions about **3 passages**. A clock at the top of the screen will display the starting time as **00 : 54 : 00** and show you how much time is remaining.

Most questions are worth 1 point, but the last question for each passage is worth more than 1 point. The directions for the last question indicate how many points you may receive.

Some passages in the computer-based test include a word or phrase that is underlined in blue. When you click on the word or phrase underlined in blue, you will see a verbal or visual definition of the word or term. In this book, those definitions are provided as endnotes below the reading passage.

Within this section, you can move to the next question by clicking on **Next**. You can skip questions and go back to them later as long as there is time remaining. If you want to return to previous questions, click on **Back**. You can click on **Review** at any time and the review screen will show you which questions you have answered and which you have not answered. From this review screen, you may go directly to any question you have already seen in the Reading section.

During this practice test, you may click the **Pause** icon at any time. This will stop the test until you decide to continue. You may continue the test in a few minutes or at any time during the period that your test is activated.

You will now begin the Reading section. Again, in an actual test you will have **54 minutes** to read the 3 passages and answer the questions. NOTE: In an actual test, some test takers might receive 4 passages; those test takers will have 72 minutes (1 hour and 12 minutes) to answer the questions.

Turn the page to begin the Reading section.

ARCHITECTURE

Architecture is the art and science of designing structures that organize and enclose space for practical and symbolic purposes. Because architecture grows out of human needs and aspirations, it clearly communicates cultural values. Of all the visual arts, architecture affects our lives most directly for it determines the character of the human environment in major ways.

Architecture is a three-dimensional form. It utilizes space, mass, texture, line, light, and color. To be architecture, a building must achieve a working harmony with a variety of elements. Humans instinctively seek structures that will shelter and enhance their way of life. It is the work of architects to create buildings that are not simply constructions but also offer inspiration and delight. Buildings contribute to human life when they provide shelter, enrich space, complement their site, suit the climate, and are economically feasible. The client who pays for the building and defines its function is an important member of the architectural team. The mediocre design of many contemporary buildings can be traced to both clients and architects.

In order for the structure to achieve the size and strength necessary to meet its purpose, architecture employs methods of support that, because they are based on physical laws, have changed little since people first discovered them—even while building materials have changed dramatically. The world's architectural structures have also been devised in relation to the objective limitations of materials. Structures can be analyzed in terms of how they deal with downward forces created by gravity. They are designed to withstand the forces of *compression* (pushing together), *tension* (pulling apart), *bending*, or a combination of these in different parts of the structure.

Every development in architecture has been the result of major technological changes. Materials and methods of construction are integral parts of the design of architectural structures. In earlier times it was necessary to design structural systems suitable for the materials that were available, such as wood, stone, or brick. Today technology has progressed to the point where it is possible to invent new building materials to suit the type of structure desired. Enormous changes in materials and techniques of construction within the last few generations have made it possible to enclose space with much greater ease and speed and with a minimum of material. Progress in this area can be measured by the difference in weight between buildings built now and those of comparable size built one hundred years ago.

Modern architectural forms generally have three separate components comparable to elements of the human body: a supporting *skeleton* or frame, an outer *skin* enclosing the interior spaces, and *equipment*, similar to the body's vital organs and systems. The equipment includes plumbing, electrical wiring, hot water, and air-conditioning. Of course in early architecture—such as igloos and adobe structures—there was no such equipment, and the skeleton and skin were often one.

Much of the world's great architecture has been constructed of stone because of its beauty, permanence, and availability. In the past, whole cities grew from the arduous task of cutting and piling stone upon stone. Some of the world's finest stone architecture can be seen in the ruins of the ancient Inca city of Machu Picchu high in the eastern Andes Mountains of Peru. The doorways and windows are made possible by placing over the open spaces thick stone beams that support the weight from above. A structural invention had to be made before the physical limitations of stone could be overcome and new architectural forms could be created. That invention was the *arch*, a curved structure originally made of separate stone or brick segments. The

arch was used by the early cultures of the Mediterranean area chiefly for underground drains, but it was the Romans who first developed and used the arch extensively in aboveground structures. Roman builders perfected the semicircular arch made of separate blocks of stone. As a method of spanning space, the arch can support greater weight than a horizontal beam. It works in compression to divert the weight above it out to the sides, where the weight is borne by the vertical elements on either side of the arch. The arch is among the many important structural breakthroughs that have characterized architecture throughout the centuries.

Directions: Now answer the questions.

PARAGRAPH 1

Architecture is the art and science of designing structures that organize and enclose space for practical and symbolic purposes. Because architecture grows out of human needs and aspirations, it clearly communicates cultural values. Of all the visual arts, architecture affects our lives most directly for it determines the character of the human environment in major ways.

1. According to paragraph 1, all of the following statements about architecture are true EXCEPT:

   Ⓐ Architecture is a visual art.
   Ⓑ Architecture reflects the cultural values of its creators.
   Ⓒ Architecture has both artistic and scientific dimensions.
   Ⓓ Architecture has an indirect effect on life.

PARAGRAPH 2

Architecture is a three-dimensional form. It utilizes space, mass, texture, line, light, and color. To be architecture, a building must achieve a working harmony with a variety of elements. Humans instinctively seek structures that will shelter and enhance their way of life. It is the work of architects to create buildings that are not simply constructions but also offer inspiration and delight. Buildings contribute to human life when they provide shelter, enrich space, complement their site, suit the climate, and are economically feasible. The client who pays for the building and defines its function is an important member of the architectural team. The mediocre design of many contemporary buildings can be traced to both clients and architects.

2. The word "enhance" in the passage is closest in meaning to

   Ⓐ protect
   Ⓑ improve
   Ⓒ organize
   Ⓓ match

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PARAGRAPH 3

In order for the structure to achieve the size and strength necessary to meet its purpose, architecture employs methods of support that, because they are based on physical laws, have changed little since people first discovered them—even while building materials have changed dramatically. The world's architectural structures have also been devised in relation to the objective limitations of materials. Structures can be analyzed in terms of how they deal with downward forces created by gravity. They are designed to withstand the forces of *compression* (pushing together), *tension* (pulling apart), *bending*, or a combination of these in different parts of the structure.

3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ Unchanging physical laws have limited the size and strength of buildings that can be made with materials discovered long ago.
   Ⓑ Building materials have changed in order to increase architectural size and strength, but physical laws of structure have not changed.
   Ⓒ When people first started to build, the structural methods used to provide strength and size were inadequate because they were not based on physical laws.
   Ⓓ Unlike building materials, the methods of support used in architecture have not changed over time because they are based on physical laws.

PARAGRAPH 4

Every development in architecture has been the result of major technological changes. Materials and methods of construction are integral parts of the design of architectural structures. In earlier times it was necessary to design structural systems suitable for the materials that were available, such as wood, stone, or brick. Today technology has progressed to the point where it is possible to invent new building materials to suit the type of structure desired. Enormous changes in materials and techniques of construction within the last few generations have made it possible to enclose space with much greater ease and speed and with a minimum of material. Progress in this area can be measured by the difference in weight between buildings built now and those of comparable size built one hundred years ago.

4. The word "integral" is closest in meaning to

   Ⓐ essential
   Ⓑ variable
   Ⓒ practical
   Ⓓ independent

5. According to paragraph 4, which of the following is true about materials used in the construction of buildings?

   (A) Because new building materials are hard to find, construction techniques have changed very little from past generations.
   (B) The availability of suitable building materials no longer limits the types of structures that may be built.
   (C) The primary building materials that are available today are wood, stone, and brick.
   (D) Architects in earlier times did not have enough building materials to enclose large spaces.

6. In paragraph 4, what does the author imply about modern buildings?

   (A) They occupy much less space than buildings constructed one hundred years ago.
   (B) They are not very different from the buildings of a few generations ago.
   (C) They weigh less in relation to their size than buildings constructed one hundred years ago.
   (D) They take a long time to build as a result of their complex construction methods.

PARAGRAPH 6

Much of the world's great architecture has been constructed of stone because of its beauty, permanence, and availability. In the past, whole cities grew from the arduous task of cutting and piling stone upon stone. Some of the world's finest stone architecture can be seen in the ruins of the ancient Inca city of Machu Picchu high in the eastern Andes Mountains of Peru. The doorways and windows are made possible by placing over the open spaces thick stone beams that support the weight from above. A structural invention had to be made before the physical limitations of stone could be overcome and new architectural forms could be created. That invention was the *arch*, a curved structure originally made of separate stone or brick segments. The arch was used by the early cultures of the Mediterranean area chiefly for underground drains, but it was the Romans who first developed and used the arch extensively in aboveground structures. Roman builders perfected the semicircular arch made of separate blocks of stone. As a method of spanning space, the arch can support greater weight than a horizontal beam. It works in compression to divert the weight above it out to the sides, where the weight is borne by the vertical elements on either side of the arch. The arch is among the many important structural breakthroughs that have characterized architecture throughout the centuries.

7. Why does the author include a description of how the "doorways and windows" of Machu Picchu were constructed?

   (A) To indicate that the combined skeletons and skins of the stone buildings of Machu Picchu were similar to igloos and adobe structures
   (B) To indicate the different kinds of stones that had to be cut to build Machu Picchu
   (C) To provide an illustration of the kind of construction that was required before arches were invented
   (D) To explain how ancient builders reduced the amount of time necessary to construct buildings from stone

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8. According to paragraph 6, which of the following statements is true of the arch?

Ⓐ The Romans were the first people to use the stone arch.
Ⓑ The invention of the arch allowed new architectural forms to be developed.
Ⓒ The arch worked by distributing the structural load of a building toward the center of the arch.
Ⓓ The Romans followed earlier practices in their use of arches.

PARAGRAPHS 4 AND 5

Progress in this area can be measured by the difference in weight between buildings built now and those of comparable size built one hundred years ago.

(A) Modern architectural forms generally have three separate components comparable to elements of the human body: a supporting *skeleton* or frame, an outer *skin* enclosing the interior spaces, and *equipment*, similar to the body's vital organs and systems. **(B)** The equipment includes plumbing, electrical wiring, hot water, and air-conditioning. **(C)** Of course in early architecture—such as igloos and adobe structures—there was no such equipment, and the skeleton and skin were often one. **(D)**

Much of the world's great architecture has been constructed of stone because of its beauty, permanence, and availability.

9. **Directions:** Look at the part of the passage that is displayed above. The letters **(A)**, **(B)**, **(C)**, and **(D)** indicate where the following sentence could be added.

However, some modern architectural designs, such as those using folded plates of concrete or air-inflated structures, are again unifying skeleton and skin.

Where would the sentence best fit?

Ⓐ Choice A
Ⓑ Choice B
Ⓒ Choice C
Ⓓ Choice D

10. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

Architecture uses forms and space to express cultural values.

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Answer Choices

A Architects seek to create buildings that are both visually appealing and well suited for human use.

B Both clients and architects are responsible for the mediocre designs of some modern buildings.

C Over the course of the history of building, innovations in materials and methods of construction have given architects ever greater freedom to express themselves.

D Modern buildings tend to lack the beauty of ancient stone buildings such as those of Machu Picchu.

E Throughout history buildings have been constructed like human bodies, needing distinct "organ" systems in order to function.

F The discovery and use of the arch typifies the way in which architecture advances by developing more efficient types of structures.

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THE LONG-TERM STABILITY OF ECOSYSTEMS

Plant communities assemble themselves flexibly, and their particular structure depends on the specific history of the area. Ecologists use the term "succession" to refer to the changes that happen in plant communities and ecosystems over time. The first community in a succession is called a pioneer community, while the long-lived community at the end of succession is called a climax community. Pioneer and successional plant communities are said to change over periods from 1 to 500 years. These changes—in plant numbers and the mix of species—are cumulative. Climax communities themselves change but over periods of time greater than about 500 years.

An ecologist who studies a pond today may well find it relatively unchanged in a year's time. Individual fish may be replaced, but the number of fish will tend to be the same from one year to the next. We can say that the properties of an ecosystem are more stable than the individual organisms that compose the ecosystem.

At one time, ecologists believed that species diversity made ecosystems stable. They believed that the greater the diversity the more stable the ecosystem. Support for this idea came from the observation that long-lasting climax communities usually have more complex food webs and more species diversity than pioneer communities. Ecologists concluded that the apparent stability of climax ecosystems depended on their complexity. To take an extreme example, farmlands dominated by a single crop are so unstable that one year of bad weather or the invasion of a single pest can destroy the entire crop. In contrast, a complex climax community, such as a temperate forest, will tolerate considerable damage from weather or pests.

The question of ecosystem stability is complicated, however. The first problem is that ecologists do not all agree what "stability" means. Stability can be defined as simply lack of change. In that case, the climax community would be considered the most stable, since, by definition, it changes the least over time. Alternatively, stability can be defined as the speed with which an ecosystem returns to a particular form following a major disturbance, such as a fire. This kind of stability is also called *resilience*. In that case, climax communities would be the most fragile and the *least* stable, since they can require hundreds of years to return to the climax state.

Even the kind of stability defined as simple lack of change is not always associated with maximum diversity. At least in temperate zones, maximum diversity is often found in mid-successional stages, not in the climax community. Once a redwood forest matures, for example, the kinds of species and the number of individuals growing on the forest floor are reduced. In general, diversity, by itself, does not ensure stability. Mathematical models of ecosystems likewise suggest that diversity does not guarantee ecosystem stability—just the opposite, in fact. A more complicated system is, in general, more likely than a simple system to break down. (A fifteen-speed racing bicycle is more likely to break down than a child's tricycle.)

Ecologists are especially interested in knowing what factors contribute to the resilience of communities because climax communities all over the world are being severely damaged or destroyed by human activities. The destruction caused by the volcanic explosion of Mount St. Helens, in the northwestern United States, for example, pales in comparison to the destruction caused by humans. We need to know what aspects of a community are most important to the community's resistance to destruction, as well as its recovery.

Many ecologists now think that the relative long-term stability of climax communities comes not from diversity but from the "patchiness" of the environment; an environment that varies from place to place supports more kinds of organisms than an environment that is uniform. A local population that goes extinct is quickly replaced by immigrants from an adjacent community. Even if the new population is of a different species, it can approximately fill the niche vacated by the extinct population and keep the food web intact.

Directions: Now answer the questions.

PARAGRAPH 1

Plant communities assemble themselves flexibly, and their particular structure depends on the specific history of the area. Ecologists use the term "succession" to refer to the changes that happen in plant communities and ecosystems over time. The first community in a succession is called a pioneer community, while the long-lived community at the end of succession is called a climax community. Pioneer and successional plant communities are said to change over periods from 1 to 500 years. These changes—in plant numbers and the mix of species—are cumulative. Climax communities themselves change but over periods of time greater than about 500 years.

1. The word "particular" in the passage is closest in meaning to

   Ⓐ natural
   Ⓑ final
   Ⓒ specific
   Ⓓ complex

PARAGRAPH 2

An ecologist who studies a pond today may well find it relatively unchanged in a year's time. Individual fish may be replaced, but the number of fish will tend to be the same from one year to the next. We can say that the properties of an ecosystem are more stable than the individual organisms that compose the ecosystem.

2. According to paragraph 2, which of the following principles of ecosystems can be learned by studying a pond?

   Ⓐ Ecosystem properties change more slowly than individuals in the system.
   Ⓑ The stability of an ecosystem tends to change as individuals are replaced.
   Ⓒ Individual organisms are stable from one year to the next.
   Ⓓ A change in the numbers of an organism does not affect an ecosystem's properties.

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PARAGRAPH 4

The question of ecosystem stability is complicated, however. The first problem is that ecologists do not all agree what "stability" means. Stability can be defined as simply lack of change. In that case, the climax community would be considered the most stable, since, by definition, it changes the least over time. Alternatively, stability can be defined as the speed with which an ecosystem returns to a particular form following a major disturbance, such as a fire. This kind of stability is also called *resilience*. In that case, climax communities would be the most fragile and the *least* stable, since they can require hundreds of years to return to the climax state.

3. According to paragraph 4, why is the question of ecosystem stability complicated?

Ⓐ The reasons for ecosystem change are not always clear.
Ⓑ Ecologists often confuse the word "stability" with the word "resilience."
Ⓒ The exact meaning of the word "stability" is debated by ecologists.
Ⓓ There are many different answers to ecological questions.

4. According to paragraph 4, which of the following is true of climax communities?

Ⓐ They are more resilient than pioneer communities.
Ⓑ They can be considered both the most and the least stable communities.
Ⓒ They are stable because they recover quickly after major disturbances.
Ⓓ They are the most resilient communities because they change the least over time.

PARAGRAPH 5

Even the kind of stability defined as simple lack of change is not always associated with maximum diversity. At least in temperate zones, maximum diversity is often found in mid-successional stages, not in the climax community. Once a redwood forest matures, for example, the kinds of species and the number of individuals growing on the forest floor are reduced. In general, diversity, by itself, does not ensure stability. Mathematical models of ecosystems likewise suggest that diversity does not guarantee ecosystem stability—just the opposite, in fact. A more complicated system is, in general, more likely than a simple system to break down. (A fifteen-speed racing bicycle is more likely to break down than a child's tricycle.)

5. Which of the following can be inferred from paragraph 5 about redwood forests?

Ⓐ They become less stable as they mature.
Ⓑ They support many species when they reach climax.
Ⓒ They are found in temperate zones.
Ⓓ They have reduced diversity during mid-successional stages.

6. In paragraph 5, why does the author provide the information that "A fifteen-speed racing bicycle is more likely to break down than a child's tricycle"?

   (A) To illustrate a general principle about the stability of systems by using an everyday example
   (B) To demonstrate that an understanding of stability in ecosystems can be applied to help understand stability in other situations
   (C) To make a comparison that supports the claim that, in general, stability increases with diversity
   (D) To provide an example that contradicts mathematical models of ecosystems

PARAGRAPH 7

Many ecologists now think that the relative long-term stability of climax communities comes not from diversity but from the "patchiness" of the environment; an environment that varies from place to place supports more kinds of organisms than an environment that is uniform. A local population that goes extinct is quickly replaced by immigrants from an adjacent community. Even if the new population is of a different species, it can approximately fill the niche vacated by the extinct population and keep the food web intact.

7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

   (A) Ecologists now think that the stability of an environment is a result of diversity rather than patchiness.
   (B) Patchy environments that vary from place to place do not often have high species diversity.
   (C) Uniform environments cannot be climax communities because they do not support as many types of organisms as patchy environments.
   (D) A patchy environment is thought to increase stability because it is able to support a wide variety of organisms.

8. The word "adjacent" in the passage is closest in meaning to

   (A) foreign
   (B) stable
   (C) fluid
   (D) neighboring

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PARAGRAPHS 5 6 AND 7

A more complicated system is, in general, more likely than a simple system to break down. (A fifteen-speed racing bicycle is more likely to break down than a child's tricycle.)

(A) Ecologists are especially interested in knowing what factors contribute to the resilience of communities because climax communities all over the world are being severely damaged or destroyed by human activities. **(B)** The destruction caused by the volcanic explosion of Mount St. Helens, in the northwestern United States, for example, pales in comparison to the destruction caused by humans. **(C)** We need to know what aspects of a community are most important to the community's resistance to destruction, as well as its recovery. **(D)**

Many ecologists now think that the relative long-term stability of climax communities comes not from diversity but from the "patchiness" of the environment; an environment that varies from place to place supports more kinds of organisms than an environment that is uniform.

9. **Directions:** Look at the part of the passage that is displayed above. The letters **(A)**, **(B)**, **(C)**, and **(D)** indicate where the following sentence could be added.

In fact, damage to the environment by humans is often much more severe than by natural events and processes.

Where would the sentence best fit?

Ⓐ Choice A
Ⓑ Choice B
Ⓒ Choice C
Ⓓ Choice D

10. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

The process of succession and the stability of a climax community can change over time.

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Answer Choices

A The changes that occur in an ecosystem from the pioneer to the climax community can be seen in one human generation.
B Ecologists agree that climax communities are the most stable types of ecosystems.
C A high degree of species diversity does not always result in a stable ecosystem.
D Disagreements over the meaning of the term "stability" make it difficult to identify the most stable ecosystems.
E The level of resilience in a plant community contributes to its long-term stability.
F The resilience of climax communities makes them resistant to destruction caused by humans.

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DEPLETION OF THE OGALLALA AQUIFER

The vast grasslands of the High Plains in the central United States were settled by farmers and ranchers in the 1880s. This region has a semiarid climate, and for 50 years after its settlement, it supported a low-intensity agricultural economy of cattle ranching and wheat farming. In the early twentieth century, however, it was discovered that much of the High Plains was underlain by a huge aquifer (a rock layer containing large quantities of groundwater). This aquifer was named the Ogallala aquifer after the Ogallala Sioux Indians, who once inhabited the region.

The Ogallala aquifer is a sandstone formation that underlies some 583,000 square kilometers of land extending from northwestern Texas to southern South Dakota. Water from rains and melting snows has been accumulating in the Ogallala for the past 30,000 years. Estimates indicate that the aquifer contains enough water to fill Lake Huron, but unfortunately, under the semiarid climatic conditions that presently exist in the region, rates of addition to the aquifer are minimal, amounting to about half a centimeter a year.

The first wells were drilled into the Ogallala during the drought years of the early 1930s. The ensuing rapid expansion of irrigation agriculture, especially from the 1950s onward, transformed the economy of the region. More than 100,000 wells now tap the Ogallala. Modern irrigation devices, each capable of spraying 4.5 million liters of water a day, have produced a landscape dominated by geometric patterns of circular green islands of crops. Ogallala water has enabled the High Plains region to supply significant amounts of the cotton, sorghum, wheat, and corn grown in the United States. In addition, 40 percent of American grain-fed beef cattle are fattened here.

This unprecedented development of a finite groundwater resource with an almost negligible natural recharge rate—that is, virtually no natural water source to replenish the water supply—has caused water tables in the region to fall drastically. In the 1930s, wells encountered plentiful water at a depth of about 15 meters; currently, they must be dug to depths of 45 to 60 meters or more. In places, the water table is declining at a rate of a meter a year, necessitating the periodic deepening of wells and the use of ever-more-powerful pumps. It is estimated that at current withdrawal rates, much of the aquifer will run dry within 40 years. The situation is most critical in Texas, where the climate is driest, the greatest amount of water is being pumped, and the aquifer contains the least water. It is projected that the remaining Ogallala water will, by the year 2030, support only 35 to 40 percent of the irrigated acreage in Texas that it supported in 1980.

The reaction of farmers to the inevitable depletion of the Ogallala varies. Many have been attempting to conserve water by irrigating less frequently or by switching to crops that require less water. Others, however, have adopted the philosophy that it is best to use the water while it is still economically profitable to do so and to concentrate on high-value crops such as cotton. The incentive of the farmers who wish to conserve water is reduced by their knowledge that many of their neighbors are profiting by using great amounts of water, and in the process are drawing down the entire region's water supplies.

In the face of the upcoming water supply crisis, a number of grandiose schemes have been developed to transport vast quantities of water by canal or pipeline from the Mississippi, the Missouri, or the Arkansas rivers. Unfortunately, the cost of water obtained through any of these schemes would increase pumping costs at least tenfold, making the cost of irrigated agricultural products from the region uncompetitive on the national and

international markets. Somewhat more promising have been recent experiments for releasing capillary water (water in the soil) above the water table by injecting compressed air into the ground. Even if this process proves successful, however, it would almost triple water costs. Genetic engineering also may provide a partial solution, as new strains of drought-resistant crops continue to be developed. Whatever the final answer to the water crisis may be, it is evident that within the High Plains, irrigation water will never again be the abundant, inexpensive resource it was during the agricultural boom years of the mid-twentieth century.

Directions: Now answer the questions.

PARAGRAPH 2

The Ogallala aquifer is a sandstone formation that underlies some 583,000 square kilometers of land extending from northwestern Texas to southern South Dakota. Water from rains and melting snows has been accumulating in the Ogallala for the past 30,000 years. Estimates indicate that the aquifer contains enough water to fill Lake Huron, but unfortunately, under the semiarid climatic conditions that presently exist in the region, rates of addition to the aquifer are minimal, amounting to about half a centimeter a year.

1. According to paragraph 2, all of the following statements about the Ogallala aquifer are true EXCEPT:

   Ⓐ The aquifer stretches from South Dakota to Texas.
   Ⓑ The aquifer's water comes from underground springs.
   Ⓒ Water has been gathering in the aquifer for 30,000 years.
   Ⓓ The aquifer's water is stored in a layer of sandstone.

2. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ Despite the current impressive size of the Ogallala aquifer, the region's climate keeps the rates of water addition very small.
   Ⓑ Although the aquifer has been adding water at the rate of only half a centimeter a year, it will eventually accumulate enough water to fill Lake Huron.
   Ⓒ Because of the region's present climatic conditions, water is being added each year to the aquifer.
   Ⓓ Even when the region experiences unfortunate climatic conditions, the rates of addition of water continue to increase.

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PARAGRAPH 3

The first wells were drilled into the Ogallala during the drought years of the early 1930s. The ensuing rapid expansion of irrigation agriculture, especially from the 1950s onward, transformed the economy of the region. More than 100,000 wells now tap the Ogallala. Modern irrigation devices, each capable of spraying 4.5 million liters of water a day, have produced a landscape dominated by geometric patterns of circular green islands of crops. Ogallala water has enabled the High Plains region to supply significant amounts of the cotton, sorghum, wheat, and corn grown in the United States. In addition, 40 percent of American grain-fed beef cattle are fattened here.

3. In paragraph 3, why does the author provide the information that 40 percent of American cattle are fattened in the High Plains?

Ⓐ To suggest that crop cultivation is not the most important part of the economy of the High Plains
Ⓑ To indicate that not all economic activity in the High Plains is dependent on irrigation
Ⓒ To provide another example of how water from the Ogallala has transformed the economy of the High Plains
Ⓓ To contrast cattle-fattening practices in the High Plains with those used in other regions of the United States

PARAGRAPH 4

This unprecedented development of a finite groundwater resource with an almost negligible natural recharge rate—that is, virtually no natural water source to replenish the water supply—has caused water tables in the region to fall drastically. In the 1930s, wells encountered plentiful water at a depth of about 15 meters; currently, they must be dug to depths of 45 to 60 meters or more. In places, the water table is declining at a rate of a meter a year, necessitating the periodic deepening of wells and the use of ever-more-powerful pumps. It is estimated that at current withdrawal rates, much of the aquifer will run dry within 40 years. The situation is most critical in Texas, where the climate is driest, the greatest amount of water is being pumped, and the aquifer contains the least water. It is projected that the remaining Ogallala water will, by the year 2030, support only 35 to 40 percent of the irrigated acreage in Texas that it supported in 1980.

4. The word "unprecedented" in the passage is closest in meaning to

Ⓐ difficult to control
Ⓑ without any restriction
Ⓒ unlike anything in the past
Ⓓ rapidly expanding

5. According to paragraph 4, all of the following are consequences of the heavy use of the Ogallala aquifer for irrigation EXCEPT:

Ⓐ The recharge rate of the aquifer is decreasing.
Ⓑ Water tables in the region are becoming increasingly lower.
Ⓒ Wells now have to be dug to much greater depths than before.
Ⓓ Increasingly powerful pumps are needed to draw water from the aquifer.

6. According to paragraph 4, compared with all other states that use Ogallala water for irrigation, Texas

   (A) has the greatest amount of farmland being irrigated with Ogallala water
   (B) contains the largest amount of Ogallala water underneath the soil
   (C) is expected to face the worst water supply crisis as the Ogallala runs dry
   (D) uses the least amount of Ogallala water for its irrigation needs

PARAGRAPH 5

The reaction of farmers to the inevitable depletion of the Ogallala varies. Many have been attempting to conserve water by irrigating less frequently or by switching to crops that require less water. Others, however, have adopted the philosophy that it is best to use the water while it is still economically profitable to do so and to concentrate on high-value crops such as cotton. The incentive of the farmers who wish to conserve water is reduced by their knowledge that many of their neighbors are profiting by using great amounts of water, and in the process are drawing down the entire region's water supplies.

7. Paragraph 5 mentions which of the following as a source of difficulty for some farmers who try to conserve water?

   (A) Crops that do not need much water are difficult to grow in the High Plains.
   (B) Farmers who grow crops that need a lot of water make higher profits.
   (C) Irrigating less frequently often leads to crop failure.
   (D) Few farmers are convinced that the aquifer will eventually run dry.

PARAGRAPH 6

In the face of the upcoming water supply crisis, a number of grandiose schemes have been developed to transport vast quantities of water by canal or pipeline from the Mississippi, the Missouri, or the Arkansas rivers. Unfortunately, the cost of water obtained through any of these schemes would increase pumping costs at least tenfold, making the cost of irrigated agricultural products from the region uncompetitive on the national and international markets. Somewhat more promising have been recent experiments for releasing capillary water (water in the soil) above the water table by injecting compressed air into the ground. Even if this process proves successful, however, it would almost triple water costs. Genetic engineering also may provide a partial solution, as new strains of drought-resistant crops continue to be developed. Whatever the final answer to the water crisis may be, it is evident that within the High Plains, irrigation water will never again be the abundant, inexpensive resource it was during the agricultural boom years of the mid-twentieth century.

8. According to paragraph 6, what is the main disadvantage of the proposed plans to transport river water to the High Plains?

   (A) The rivers cannot supply sufficient water for the farmers' needs.
   (B) Increased irrigation costs would make the products too expensive.
   (C) The costs of using capillary water for irrigation will increase.
   (D) Farmers will be forced to switch to genetically engineered crops.

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PARAGRAPHS 5 AND 6

The reaction of farmers to the inevitable depletion of the Ogallala varies. Many have been attempting to conserve water by irrigating less frequently or by switching to crops that require less water. **(A)** Others, however, have adopted the philosophy that it is best to use the water while it is still economically profitable to do so and to concentrate on high-value crops such as cotton. **(B)** The incentive of the farmers who wish to conserve water is reduced by their knowledge that many of their neighbors are profiting by using great amounts of water, and in the process are drawing down the entire region's water supplies. **(C)**

In the face of the upcoming water supply crisis, a number of grandiose schemes have been developed to transport vast quantities of water by canal or pipeline from the Mississippi, the Missouri, or the Arkansas rivers. **(D)** Unfortunately, the cost of water obtained through any of these schemes would increase pumping costs at least tenfold, making the cost of irrigated agricultural products from the region uncompetitive on the national and international markets.

9. **Directions:** Look at the part of the passage that is displayed above. The letters **(A)**, **(B)**, **(C)**, and **(D)** indicate where the following sentence could be added.

But even if uncooperative farmers were to join in the conservation efforts, this would only delay the depletion of the aquifer.

Where would the sentence best fit?

Ⓐ Choice A
Ⓑ Choice B
Ⓒ Choice C
Ⓓ Choice D

10. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

The Ogallala aquifer is a large underground source of water in the High Plains region of the United States.

-
-
-

Answer Choices

A The use of the Ogallala for irrigation has allowed the High Plains to become one of the most productive agricultural regions in the United States.

B The periodic deepening of wells and the use of more-powerful pumps would help increase the natural recharge rate of the Ogallala.

C Given the aquifer's low recharge rate, its use for irrigation is causing water tables to drop and will eventually lead to its depletion.

D In Texas, a great deal of attention is being paid to genetic engineering because it is there that the most critical situation exists.

E Releasing capillary water and introducing drought-resistant crops are less promising solutions to the water supply crisis than bringing in river water.

F Several solutions to the upcoming water supply crisis have been proposed, but none of them promises to keep the costs of irrigation low.

STOP. This is the end of the Reading section of *TOEFL iBT*® Practice Test 3.

LISTENING

Directions: This section measures your ability to understand conversations and lectures in English.

You should listen to each conversation and lecture only **once**.

After each conversation or lecture, you will answer some questions about it. The questions typically ask about the main idea and supporting details. Some questions ask about the purpose of a speaker's statements or a speaker's attitude. Answer the questions based on what is stated or implied by the speakers.

You may take notes while you listen. You may use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions, you will see this icon:  This means that you will hear, but not see, part of the question.

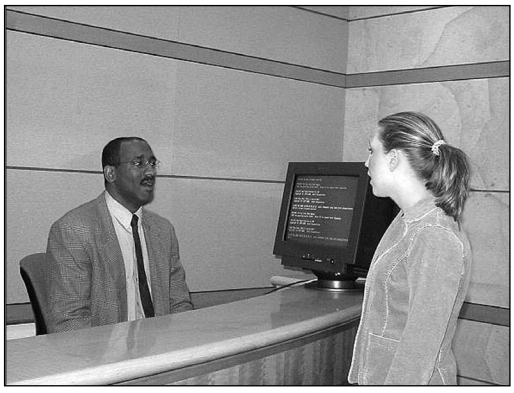
Most questions are worth 1 point. If a question is worth more than 1 point, it will have special directions that indicate how many points you can receive.

It will take about **41 minutes** to listen to the conversations and lectures and to answer the questions. You should answer each question, even if you must guess the answer. Answer each question before moving on. Do not return to previous questions.

At the end of this Practice Test you will find an answer key, information to help you determine your score, scripts for the audio tracks, and explanations of the answers.

Turn the page to begin the Listening section.

Listen to Track 57.



Questions

Directions: Mark your answer by filling in the oval or square next to your choice.

1. Why does the woman come to the office?

   Ⓐ To notify the university of her change of address
   Ⓑ To find out where her physics class is being held
   Ⓒ To get directions to the science building
   Ⓓ To complain about her physics class being canceled

2. What happened to the letter the university sent to the woman?

   Ⓐ She threw it away by mistake.
   Ⓑ Her roommate forgot to give it to her.
   Ⓒ It was sent to her old mailing address.
   Ⓓ It was sent to another student by mistake.

3. Why was the woman's physics class canceled?

   Ⓐ Not enough students signed up to take the class.
   Ⓑ No professors were available to teach the class.
   Ⓒ The university changed its requirements for physics students.
   Ⓓ There were no classrooms available in the science building at that hour.

4. What does the man suggest the woman do before the beginning of next semester?

   (A) Consult with her advisor about her class schedule
   (B) Check with the registrar's office about the location of the class
   (C) Register for her classes early
   (D) Call the physics department

5. *Listen again to part of the conversation by playing Track 58. Then answer the question.*

   What does the man imply when he says this?

   (A) He knows the physics class has been canceled.
   (B) He is not sure where the science building is.
   (C) Many of the room assignments have been changed.
   (D) The woman can check for herself where her class is.

GO ON TO THE NEXT PAGE

Listen to Track 59.

Questions

6. What does the professor mainly discuss?

   (A) Major changes in the migratory patterns of hummingbirds
   (B) The adaptation of hummingbirds to urban environments
   (C) Concern about the reduction of hummingbird habitat
   (D) The impact of ecotourism on hummingbird populations

7. What does the professor imply might cause a decrease in the hummingbird population?

   (A) An increase in the ecotourism industry
   (B) An increase in the use of land to raise crops and cattle
   (C) A decrease in banding studies
   (D) A decrease in the distance traveled during migration

8. What does the professor say people have done to help hummingbirds survive?

   (A) They have built a series of hummingbird feeding stations.
   (B) They have supported new laws that punish polluters of wildlife habitats.
   (C) They have replanted native flowers in once-polluted areas.
   (D) They have learned to identify various hummingbird species.

9. What way of collecting information about migrating hummingbirds does the professor mention?

   (A) Receiving radio signals from electronic tracking devices
   (B) Being contacted by people who recapture banded birds
   (C) Counting the birds that return to the same region every year
   (D) Comparing old and young birds' migration routes

10. What does the professor imply researchers have learned while studying hummingbird migration?

    (A) Hummingbirds have totally disappeared from some countries due to recent habitat destruction.
    (B) Programs to replant flowers native to hummingbird habitats are not succeeding.
    (C) Some groups of hummingbirds have changed their migration patterns.
    (D) Some plant species pollinated by hummingbirds have become extinct.

11. *Listen again to part of the lecture by playing Track 60.* 
    Then answer the question.

    What does the professor imply when she says this?

    (A) There is disagreement about the idea she has presented.
    (B) She does not plan to discuss all the details.
    (C) Her next point may seem to contradict what she has just said.
    (D) The point she will make next should be obvious to the students.

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Listen to Track 61.

Film History

Jean Painlevé

Jacques Cousteau

Questions

12. What is the main purpose of the lecture?

(A) To discuss the style of an early filmmaker
(B) To describe different types of filmmaking in the 1930s
(C) To discuss the emergence of the documentary film
(D) To describe Painlevé's influence on today's science-fiction films

13. Why are Painlevé's films typical of the films of the 1920s and 1930s?

(A) They do not have sound.
(B) They are filmed underwater.
(C) They are easy to understand.
(D) They are difficult to categorize.

14. According to the professor, how did Painlevé's films confuse the audience?

(A) They showed animals out of their natural habitat.
(B) They depicted animals as having both human and animal characteristics.
(C) The narration was scientific and difficult to understand.
(D) The audiences of the 1920s and 1930s were not used to films shot underwater.

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15. Why does the professor mention sea horses?

Ⓐ To explain that they were difficult to film in the 1930s
Ⓑ To point out that Cousteau made documentaries about them
Ⓒ To illustrate Painlevé's fascination with unusual animals
Ⓓ To explain why Painlevé's underwater films were not successful

16. Why does the professor compare the film styles of Jacques Cousteau and Jean Painlevé?

Ⓐ To explain how Painlevé influenced Cousteau
Ⓑ To emphasize the uniqueness of Painlevé's filming style
Ⓒ To emphasize the artistic value of Cousteau's documentary films
Ⓓ To demonstrate the superiority of Painlevé's filmmaking equipment

17. *Listen to Track 62 to answer the question.* 

What does the student imply when he says this?

Ⓐ He does not like Jean Painlevé's films.
Ⓑ He thinks that the professor should spend more time discussing Jacques Cousteau's films.
Ⓒ He believes that high-quality filmmakers are usually well known.
Ⓓ He believes that Jean Painlevé's films have been unfairly overlooked.

Listen to Track 63.

Questions

18. Why does the student go to see the professor?

Ⓐ To ask about a class assignment
Ⓑ To find out about a mid-semester project
Ⓒ To get information about summer jobs
Ⓓ To discuss ways to improve his grade

19. What was originally located on the site of the lecture hall?

Ⓐ A farmhouse
Ⓑ A pottery factory
Ⓒ A clothing store
Ⓓ A bottle-manufacturing plant

20. What is mentioned as an advantage of working on this project?

Ⓐ Off-campus travel is paid for.
Ⓑ Students can leave class early.
Ⓒ The location is convenient.
Ⓓ It fulfills a graduation requirement.

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21. What is the professor considering doing to get more volunteers?

(A) Offering extra class credit
(B) Paying the students for their time
(C) Asking for student volunteers from outside her class
(D) Providing flexible work schedules

22. What information does the student still need to get from the professor?

(A) The name of the senior researcher
(B) What book he needs to read before the next lecture
(C) When the training session will be scheduled
(D) Where the project is located

Listen to Track 64.

Art History

Chauvet

Altamira
Lascaux

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Questions

23. What does the professor mainly discuss?

Ⓐ The oldest known cave art
Ⓑ How ancient cave art is dated
Ⓒ The homes of Paleolithic humans
Ⓓ How Paleolithic humans thought about animals

24. Why does the professor mention his daughter?

Ⓐ To describe her reaction to seeing the paintings
Ⓑ To explain the universal appeal of the Chauvet paintings
Ⓒ To demonstrate the size of most Paleolithic cave art
Ⓓ To emphasize his point about the age of the Chauvet paintings

25. What is the professor's opinion about the art at the Chauvet cave?

Ⓐ It is extremely well done.
Ⓑ It probably reflected the artists' religious beliefs.
Ⓒ It is less sophisticated than the art at Lascaux and Altamira.
Ⓓ It is probably not much older than the art at Lascaux and Altamira.

26. According to the professor, what is the significance of charcoal marks on the walls of the Chauvet cave?

Ⓐ They suggest that Paleolithic people cooked their food in the cave.
Ⓑ They prove that people came to the cave long after the paintings were made.
Ⓒ They show how much light the Paleolithic artists needed for their work.
Ⓓ They were used in recent times to date the paintings.

27. Compared with other Paleolithic art, what is unusual about the animals painted at Chauvet?

(A) Most of them are horses.
(B) Many of them are dangerous.
(C) Many of them are shown alongside humans.
(D) All of them are species that are still found in France.

28. What are two questions about the Chauvet cave artists that the professor raises but cannot answer?
Choose 2 answers.

[A] How they lighted their work area
[B] How they obtained pigments for their paints
[C] Why they chose to paint certain animals and not others
[D] Why they placed their art in dark, uninhabited places

STOP. This is the end of the Listening section of *TOEFL iBT*® Practice Test 3.

SPEAKING

Directions: The following Speaking section of the test will last approximately **17 minutes**. To complete it, you will need a recording device that you can play back to listen to your responses.

During the test, you will answer four speaking questions. One question asks about a familiar topic. Three questions ask about short conversations, lectures, and reading passages. You may take notes as you listen to the conversations and lectures. The questions and the reading passages are printed here. The time you will have to prepare your response and to speak is printed below each question. You should answer all of the questions as completely as possible in the time allowed.

Play the audio tracks listed in the test instructions. Record each of your responses.

At the end of this Practice Test you will find scripts for the audio tracks, important points for each question, directions for listening to sample spoken responses, and comments on those responses by official raters.

Questions

1. You will now be asked to give your opinion about a familiar topic. After you hear the question, you will have 15 seconds to prepare your response and 45 seconds to speak.

Now play Track 65 to hear Question 1. 

Some students prefer to work on class assignments by themselves. Others believe it is better to work in a group. Which do you prefer? Explain why.

Preparation Time: 15 Seconds
Response Time: 45 Seconds

2. You will now read a short passage and then listen to a conversation on the same topic. You will then be asked a question about them. After you hear the question, you will have 30 seconds to prepare your response and 60 seconds to speak.

Now play Track 66 to hear Question 2. 

Reading Time: 45 Seconds

Hot Breakfasts Eliminated

Beginning next month, Dining Services will no longer serve hot breakfast foods at university dining halls. Instead, students will be offered a wide assortment of cold breakfast items in the morning. These cold breakfast foods, such as breads, fruit, and yogurt, are healthier than many of the hot breakfast items that we will stop serving, so health-conscious students should welcome this change. Students will benefit in another way as well, because limiting the breakfast selection to cold food items will save money and allow us to keep our meal plans affordable.

The woman expresses her opinion of the change that has been announced. State her opinion and explain her reasons for holding that opinion.

Preparation Time: 30 Seconds
Response Time: 60 Seconds

3. You will now read a short passage and then listen to a talk on the same academic topic. You will then be asked a question about them. After you hear the question, you will have 30 seconds to prepare your response and 60 seconds to speak.

Now play Track 67 to hear Question 3.

Reading Time: 50 Seconds

Cognitive Dissonance

Individuals sometimes experience a contradiction between their actions and their beliefs—between what they are doing and what they believe they should be doing. These contradictions can cause a kind of mental discomfort known as *cognitive dissonance*. People experiencing cognitive dissonance often do not want to change the way they are acting, so they resolve the contradictory situation in another way: they change their interpretation of the situation in a way that minimizes the contradiction between what they are doing and what they believe they should be doing.

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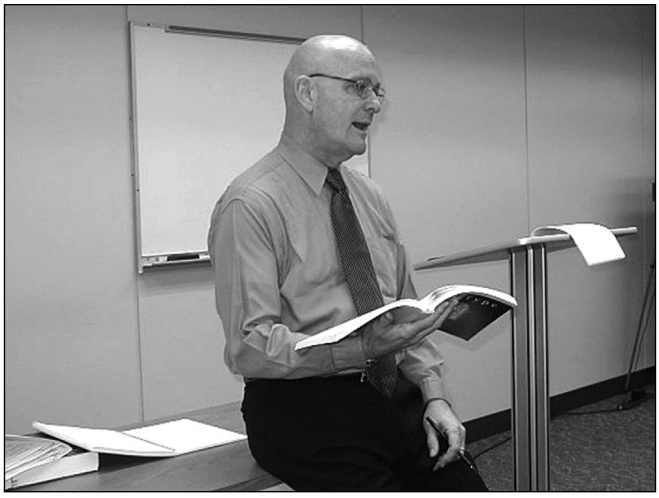

Using the example discussed by the professor, explain what cognitive dissonance is and how people often deal with it.

Preparation Time: 30 Seconds
Response Time: 60 Seconds

4. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, you will have 20 seconds to prepare your response and 60 seconds to speak.

Now play Track 68 to hear Question 4.

Using the examples from the talk, explain how persuasive strategies are used in advertising.

Preparation Time: 20 Seconds
Response Time: 60 Seconds

STOP. This is the end of the Speaking section of *TOEFL iBT*® Practice Test 3.

WRITING

Directions: This section measures your ability to use writing to communicate in an academic environment. There will be two writing tasks.

For the first writing task, you will read a passage and listen to a lecture and then answer a question based on what you have read and heard. For the second task, you will answer a question based on your own knowledge and experience.

At the end of this Practice Test you will find a script for the audio track, topic notes, sample test taker essays, and comments on those essays by official raters.

Turn the page to see the directions for the first writing task.

Writing Based on Reading and Listening

Directions: For this task, you will read a passage about an academic topic and you will listen to a lecture about the same topic. You may take notes while you read and listen.

Then you will write a response to a question that asks you about the relationship between the lecture you heard and the reading passage. Try to answer the question as completely as possible using information from the reading passage and the lecture. The question does not ask you to express your personal opinion. You may refer to the reading passage when you write. You may use your notes to help you answer the question.

Typically, an effective response will be 150 to 225 words. Your response will be judged on the quality of your writing and on the completeness and accuracy of the content.

Give yourself **3 minutes** to read the passage.

Reading Time: 3 minutes

Rembrandt is the most famous of the seventeenth-century Dutch painters. However, there are doubts whether some paintings attributed to Rembrandt were actually painted by him. One such painting is known as *Portrait of an Elderly Woman in a White Bonnet*. The painting was attributed to Rembrandt because of its style, and indeed the representation of the woman's face is very much like that of portraits known to be by Rembrandt. But there are problems with the painting that suggest it could not be a work by Rembrandt.

First, there is something inconsistent about the way the woman in the portrait is dressed. She is wearing a white linen cap of a kind that only servants would wear—yet the coat she is wearing has a luxurious fur collar that no servant could afford. Rembrandt, who was known for his attention to the details of his subjects' clothing, would not have been guilty of such an inconsistency.

Second, Rembrandt was a master of painting light and shadow, but in this painting these elements do not fit together. The face appears to be illuminated by light reflected onto it from below. But below the face is the dark fur collar, which would absorb light rather than reflect it. So the face should appear partially in shadow—which is not how it appears. Rembrandt would never have made such an error.

Finally, examination of the back of the painting reveals that it was painted on a panel made of several pieces of wood glued together. Although Rembrandt often painted on wood panels, no painting known to be by Rembrandt uses a panel glued together in this way from several pieces of wood.

For these reasons the painting was removed from the official catalog of Rembrandt's paintings in the 1930s.

Now play Track 69.

Question

Summarize the points made in the lecture, being sure to explain how they answer the specific problems presented in the reading passage.

You have 20 minutes to plan and write your response.

Response Time: 20 minutes

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Writing Based on Knowledge and Experience

Directions: For this task, you will write an essay in response to a question that asks you to state, explain, and support your opinion on an issue.

Typically, an effective essay will contain a minimum of 300 words. Your essay will be judged on the quality of your writing. This includes the development of your ideas, the organization of your essay, and the quality and accuracy of the language you use to express your ideas.

You have **30 minutes** to plan and complete your essay.

Write your essay in the space provided.

Question

Do you agree or disagree with the following statement?

It is more important to keep your old friends than it is to make new friends.

Use specific reasons and examples to support your answer. Be sure to use your own words. Do **not** use memorized examples.

Response Time: 30 minutes

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STOP. This is the end of the Writing section of *TOEFL iBT*® Practice Test 3.