

TOEFL iBT[®] Paper Edition Practice Test



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Section 1: Reading Section

Directions: This section measures your ability to understand academic passages written in English.

You will read some passages and answer questions about them. The questions typically ask about the main ideas and important details in the passages. The test administrator will tell you how many minutes you have to read the passages, answer the questions, and mark your answers on the Reading Section Answer Sheet.

Some passages may include a footnote that explains a word or phrase that is used in the passage.

Most questions require only one answer. Questions requiring more than one answer have special directions:

- Some questions require two answers to get 1 point. If you choose only one answer, you will not get any points. For these questions, you will see:

Choose 2 answers.

- Some questions require three answers and are worth up to 2 points. You may get 1 point for answering part of the question correctly. For these questions, you will see:

This question is worth 2 points.

Choose 3 answers.

You may review and revise your answers in this section as long as there is time remaining.

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Questions 1 - 10 are based on the following passage.

Extinction of the Dinosaurs

Paleozoic Era	334 to 248 million years ago
Mesozoic Era	245 to 65 million years ago - Triassic Period - Jurassic Period - Cretaceous Period
Cenozoic Era	65 million years ago to the present

- 1 Paleontologists have argued for a long time that the demise of the dinosaurs was caused by climatic alterations associated with slow changes in the positions of continents and seas resulting from plate tectonics. Off and on throughout the Cretaceous (the last period of the Mesozoic era, during which dinosaurs flourished), large shallow seas covered extensive areas of the continents. Data from diverse sources, including geochemical evidence preserved in seafloor sediments, indicate that the Late Cretaceous climate was milder than today's. The days were not too hot, nor the nights too cold. The summers were not too warm, nor the winters too frigid. The shallow seas on the continents probably buffered the temperature of the nearby air, keeping it relatively constant.
- 2 At the end of the Cretaceous, the geological record shows that these seaways retreated from the continents back into the major ocean basins. No one knows why. Over a period of about 100,000 years, while the seas pulled back, climates around the world became dramatically more extreme: warmer days, cooler nights; hotter summers, colder winters. Perhaps dinosaurs could not tolerate these extreme temperature changes and became extinct.
- 3 If true, though, why did cold-blooded animals such as snakes, lizards, turtles, and crocodiles survive the freezing winters and torrid summers? These animals are at the mercy of the climate to maintain a livable body temperature. It's hard to understand why they would not be affected, whereas dinosaurs were left too crippled to cope, especially if, as some scientists believe, dinosaurs were warm-blooded. Critics also point out that the shallow seaways had retreated from and advanced on the continents numerous times during the Mesozoic, so why did the dinosaurs survive the climatic changes associated with the earlier fluctuations but not with this one? Although initially appealing, the hypothesis of a simple climatic change related to sea levels is insufficient to explain all the data.
- 4 Dissatisfaction with conventional explanations for dinosaur extinctions led to a surprising observation that, in turn, has suggested a new hypothesis. Many plants and animals disappear abruptly from the fossil record as one moves from layers of rock documenting the end of the Cretaceous up into rocks



representing the beginning of the Cenozoic (the era after the Mesozoic). Between the last layer of Cretaceous rock and the first layer of Cenozoic rock, there is often a thin layer of clay. Scientists felt that they could get an idea of how long the extinctions took by determining how long it took to deposit this one centimeter of clay and they thought they could determine the time it took to deposit the clay by determining the amount of the element iridium (Ir) it contained.

5 Ir has not been common at Earth's surface since the very beginning of the planet's history. Because it usually exists in a metallic state, it was preferentially incorporated in Earth's core as the planet cooled and consolidated. Ir is found in high concentrations in some meteorites, in which the solar system's original chemical composition is preserved. Even today, microscopic meteorites continually bombard Earth, falling on both land and sea. By measuring how many of these meteorites fall to Earth over a given period of time, scientists can estimate how long it might have taken to deposit the observed amount of Ir in the boundary clay. These calculations suggest that a period of about one million years would have been required. However, other reliable evidence suggests that the deposition of the boundary clay could not have taken one million years. So the unusually high concentration of Ir seems to require a special explanation.

6 In view of these facts, scientists hypothesized that a single large asteroid, about 10 to 15 kilometers across, collided with Earth, and the resulting fallout created the boundary clay. Their calculations show that the impact kicked up a dust cloud that cut off sunlight for several months, inhibiting photosynthesis in plants; decreased surface temperatures on continents to below freezing; caused extreme episodes of acid rain; and significantly raised long-term global temperatures through the greenhouse effect. This disruption of food chain and climate would have eradicated the dinosaurs and other organisms in less than fifty years.



For each question, choose one answer unless there are special directions.

1. According to paragraph 1, which of the following is true of the Late Cretaceous climate?
 - (A) Summers were very warm and winters were very cold.
 - (B) Shallow seas on the continents caused frequent temperature changes.
 - (C) The climate was very similar to today's climate.
 - (D) The climate did not change dramatically from season to season.

2. Which of the following reasons is suggested in paragraph 2 for the extinction of the dinosaurs?
 - (A) Changes in the lengths of the days and nights during the Late Cretaceous period
 - (B) Droughts caused by the movement of seaways back into the oceans
 - (C) The change from mild to severe climates during the Late Cretaceous period
 - (D) An extreme decrease in the average yearly temperature over 10,000 years

3. Why does the author mention the survival of “snakes, lizards, turtles, and crocodiles” in paragraph 3 ?
 - (A) To argue that dinosaurs may have become extinct because they were not cold-blooded animals
 - (B) To question the adequacy of the hypothesis that climatic change related to sea levels caused the extinction of the dinosaurs
 - (C) To present examples of animals that could maintain a livable body temperature more easily than dinosaurs
 - (D) To support a hypothesis that these animals were not as sensitive to climate changes in the Cretaceous period as they are today

4. The word “cope” in paragraph 3 is closest in meaning to
 - (A) adapt
 - (B) move
 - (C) continue
 - (D) compete

5. According to paragraph 3, which of the following is true of changes in climate before the Cretaceous period and the effect of these changes on dinosaurs?
 - (A) Climate changes associated with the movement of seaways before the Cretaceous period did not cause dinosaurs to become extinct.
 - (B) Changes in climate before the Cretaceous period caused severe fluctuations in sea level, resulting in the extinction of the dinosaurs.
 - (C) Frequent changes in climate before the Cretaceous period made dinosaurs better able to maintain a livable body temperature.
 - (D) Before the Cretaceous period there were few changes in climate, and dinosaurs flourished.



6. Paragraph 5 implies that a special explanation of the Ir in the boundary clay is needed because
- (A) the Ir in microscopic meteorites reaching Earth during the Cretaceous period would have been incorporated into Earth's core
 - (B) the Ir in the boundary clay was deposited much more than a million years ago
 - (C) the concentration of Ir in the boundary clay is higher than in microscopic meteorites
 - (D) the amount of Ir in the boundary clay is too great to have come from microscopic meteorites during the time the boundary clay was deposited
7. The word “**disruption**” in paragraph 6 is closest in meaning to
- (A) exhaustion
 - (B) disturbance
 - (C) modification
 - (D) disappearance
8. Paragraph 6 mentions all of the following effects of the hypothesized asteroid collision EXCEPT:
- (A) a large dust cloud that blocked sunlight
 - (B) an immediate drop in the surface temperatures of the continents
 - (C) an extreme decrease in rainfall on the continents
 - (D) a long-term increase in global temperatures



9. **Directions:** Look at the part of the passage displayed below with the letters (A), (B), (C), and (D). Where would the following sentence best fit?

Consequently, the idea that the Ir in the boundary clay came from microscopic meteorites cannot be accepted.

Ir has not been common at Earth's surface since the very beginning of the planet's history. Because it usually exists in a metallic state, it was preferentially incorporated in Earth's core as the planet cooled and consolidated. Ir is found in high concentrations in some meteorites, in which the solar system's original chemical composition is preserved. Even today, microscopic meteorites continually bombard Earth, falling on both land and sea. By measuring how many of these meteorites fall to Earth over a given period of time, scientists can estimate how long it might have taken to deposit the observed amount of Ir in the boundary clay. (A) These calculations suggest that a period of about one million years would have been required. (B) However, other reliable evidence suggests that the deposition of the boundary clay could not have taken one million years. (C) So the unusually high concentration of Ir seems to require a special explanation. (D)

- (A) Choice A
- (B) Choice B
- (C) Choice C
- (D) Choice D

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10. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the 3 answer choices that express the most important ideas in the passage. Some sentences 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.

Choose 3 answers.

For a long time scientists have argued that the extinction of the dinosaurs was related to climate change.



Answer Choices

- (A) Extreme changes in daily and seasonal climates preceded the retreat of the seas back into the major ocean basins.
- (B) A simple climate change does not explain some important data related to the extinction of the dinosaurs at the end of the Cretaceous.
- (C) The retreat of the seaways at the end of the Cretaceous has not been fully explained.
- (D) The abruptness of extinctions at the end of the Cretaceous and the high concentration of Ir found in clay deposited at that time have fueled the development of a new hypothesis.
- (E) Some scientists hypothesize that the extinction of the dinosaurs resulted from the effects of an asteroid collision with Earth.
- (F) Boundary clay layers like the one between the Mesozoic and Cenozoic are used by scientists to determine the rate at which an extinct species declined.



Questions 11 - 20 are based on the following passage.

The Rise of Teotihuacán

- 1 The city of Teotihuacán, which lay about 50 kilometers northeast of modern-day Mexico City, began its growth by 200 –100 B.C. At its height, between about A.D. 150 and 700, it probably had a population of more than 125,000 people and covered at least 20 square kilometers. It had over 2,000 apartment complexes, a great market, a large number of industrial workshops, an administrative center, a number of massive religious edifices, and a regular grid pattern of streets and buildings. Clearly, much planning and central control were involved in the expansion and ordering of this great metropolis. Moreover, the city had economic and perhaps religious contacts with most parts of Mesoamerica (modern Central America and Mexico).

- 2 How did this tremendous development take place, and why did it happen in the Teotihuacán Valley? Among the main factors are Teotihuacán’s geographic location on a natural trade route to the south and east of the Valley of Mexico, the obsidian (a type of volcanic glasslike rock used for manufacturing tools and ceremonial objects) resources in the Teotihuacán Valley itself, and the valley’s potential for extensive irrigation. The exact role of other factors is much more difficult to pinpoint—for instance, Teotihuacán’s religious significance as a shrine, the historical situation in and around the Valley of Mexico toward the end of the first millennium B.C., the ingenuity and foresightedness of Teotihuacán’s elite, and, finally, the impact of natural disasters, such as the volcanic eruptions of the late first millennium B.C.

- 3 This last factor is at least circumstantially implicated in Teotihuacán’s rise. Prior to 200 B.C., a number of relatively small centers coexisted in and near the Valley of Mexico. Around this time, the largest of these centers, Cuicuilco, was seriously affected by a volcanic eruption, with much of its agricultural land covered by lava. With Cuicuilco eliminated as a potential rival, any one of a number of relatively modest towns might have emerged as a leading economic and political power in Central Mexico. The archaeological evidence clearly indicates, though, that Teotihuacán was the center that did arise as the predominant force in the area by the first century A.D.

- 4 It seems likely that Teotihuacán’s natural resources—along with the city elite’s ability to recognize their potential—gave the city a competitive edge over its neighbors. The valley, like many other places in Mexican and Guatemalan highlands, was rich in obsidian. The hard volcanic stone was a resource that had been in great demand for many years, at least since the rise of the Olmecs (a people who flourished between 1200 and 400 B.C.), and it apparently had a secure market. Moreover, recent research on obsidian tools found at Olmec sites has shown that some of the obsidian obtained by the Olmecs originated near Teotihuacán. Teotihuacán obsidian must have been recognized as a valuable commodity for many centuries before the great city arose.



5 Long-distance trade in obsidian probably gave the elite residents of Teotihuacán access to a wide variety of exotic goods, as well as a relatively prosperous life. Such success may have attracted immigrants to Teotihuacán. In addition, Teotihuacán's elite may have consciously attempted to attract new inhabitants. It is also probable that as early as 200 B.C. Teotihuacán may have achieved some religious significance and its shrine (or shrines) may have served as an additional population magnet. Finally, the growing population was probably fed by increasing the number and size of irrigated fields.

6 The picture of Teotihuacán that emerges is a classic picture of positive feedback among obsidian mining and working, trade, population growth, irrigation, and religious tourism. The thriving obsidian operation, for example, would necessitate more miners, additional manufacturers of obsidian tools, and additional traders to carry the goods to new markets. All this led to increased wealth, which in turn would attract more immigrants to Teotihuacán. The growing power of the elite, who controlled the economy, would give them the means to physically coerce people to move to Teotihuacán and serve as additions to the labor force. More irrigation works would have to be built to feed the growing population, and this resulted in more power and wealth for the elite.



For each question, choose one answer unless there are special directions.

11. The word “massive” in paragraph 1 is closest in meaning to
 - (A) ancient
 - (B) carefully planned
 - (C) very large
 - (D) carefully protected

12. In paragraph 1, each of the following is mentioned as a feature of the city of Teotihuacán between A.D. 150 and 700 EXCEPT:
 - (A) regularly arranged streets
 - (B) several administrative centers spread across the city
 - (C) many manufacturing workshops
 - (D) apartment complexes

13. Which of the following can be inferred from paragraphs 2 and 3 about the volcanic eruptions of the late first millennium B.C.?
 - (A) They were more frequent than historians once thought.
 - (B) They may have done more damage to Teotihuacán than to neighboring centers.
 - (C) They may have played a major role in the rise of Teotihuacán.
 - (D) They increased the need for extensive irrigation in the Teotihuacán Valley.

14. What can be inferred from paragraph 3 about Cuicuilco prior to 200 B.C.?
 - (A) It was a fairly small city until that date.
 - (B) It was located outside the Valley of Mexico.
 - (C) It emerged rapidly as an economical and political center.
 - (D) Its economy relied heavily on agriculture.

15. According to paragraph 4, which of the following allowed Teotihuacán to have “a competitive edge over its neighbors”?
 - (A) A well-exploited and readily available commodity
 - (B) The presence of a highly stable elite class
 - (C) Knowledge derived directly from the Olmecs about the art of toolmaking
 - (D) Scarce natural resources in nearby areas such as those located in what are now the Guatemalan and Mexican highlands

16. According to paragraph 4, what has recent research on obsidian tools found at Olmec sites shown?
 - (A) Obsidian’s value was understood only when Teotihuacán became an important city.
 - (B) The residents of Teotihuacán were sophisticated toolmakers.
 - (C) The residents of Teotihuacán traded obsidian with the Olmecs as early as 400 B.C.
 - (D) Some of the obsidian used by the Olmecs came from the area around Teotihuacán.



17. Select the TWO answer choices that are mentioned in paragraph 5 as being features of Teotihuacán that may have attracted immigrants to the city.

Choose 2 answers.

- (A) The prosperity of the elite
- (B) Plenty of available housing
- (C) Opportunities for well-paid agricultural employment
- (D) The presence of one or more religious shrines

18. In paragraph 6, the author discusses “The thriving obsidian operation” in order to

- (A) explain why manufacturing was the main industry of Teotihuacán
- (B) give an example of an industry that took very little time to develop in Teotihuacán
- (C) illustrate how several factors influenced each other to make Teotihuacán a powerful and wealthy city
- (D) explain how a successful industry can be a source of wealth and a source of conflict at the same time



19. **Directions:** Look at the part of the passage displayed below with the letters (A), (B), (C), and (D). Where would the following sentence best fit?

In fact, artifacts and pottery from Teotihuacán have been discovered in sites as far away as the Mayan lowlands, the Guatemalan highlands, northern Mexico, and the Gulf Coast of Mexico.

The city of Teotihuacán, which lay about 50 kilometers northeast of modern-day Mexico City, began its growth by 200 –100 B.C. At its height, between about A.D. 150 and 700, it probably had a population of more than 125,000 people and covered at least 20 square kilometers. (A) It had over 2,000 apartment complexes, a great market, a large number of industrial workshops, an administrative center, a number of massive religious edifices, and a regular grid pattern of streets and buildings. (B) Clearly, much planning and central control were involved in the expansion and ordering of this great metropolis. (C) Moreover, the city had economic and perhaps religious contacts with most parts of Mesoamerica (modern Central America and Mexico). (D)

- (A) Choice A
- (B) Choice B
- (C) Choice C
- (D) Choice D

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20. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the 3 answer choices that express the most important ideas in the passage. Some sentences 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.

Choose 3 answers.

Teotihuacán was a highly developed city in Mesoamerica that reached its peak between about A.D. 150 and 700.



Answer Choices

- (A) The number and sophistication of the architectural, administrative, commercial, and religious features of Teotihuacán indicate the existence of centralized planning and control.
- (B) Teotihuacán may have developed its own specific local religion as a result of the cultural advances made possible by the city's great prosperity.
- (C) Several factors may account for Teotihuacán's extraordinary development, including its location, rich natural resources, irrigation potential, intelligent elite, and the misfortune of rival communities.
- (D) As a result of its large number of religious shrines, by the first century A.D., Teotihuacán became the most influential religious center in all of Mesoamerica.
- (E) In many important areas, from the obsidian industry to religious tourism, Teotihuacán's success and prosperity typified the classic positive feedback cycle.
- (F) Although many immigrants settled in Teotihuacán between A.D. 150 and 700, the increasing threat of coerced labor discouraged further settlement and limited Teotihuacán's population growth.

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Questions 21 - 30 are based on the following passage.

The Surface of Mars

- 1 The surface of Mars shows a wide range of geologic features, including huge volcanoes—the largest known in the solar system—and extensive impact cratering. Three very large volcanoes are found on the Tharsis bulge, an enormous geologic area near Mars’s equator. Northwest of Tharsis is the largest volcano of all: Olympus Mons, with a height of 25 kilometers and measuring some 700 kilometers in diameter at its base. The three large volcanoes on the Tharsis bulge are a little smaller—a “mere” 18 kilometers high.
- 2 None of these volcanoes was formed as a result of collisions between plates of the Martian crust—there is no plate motion on Mars. Instead, they are shield volcanoes—volcanoes with broad, sloping sides formed by molten rock. All four show distinctive lava channels and other flow features similar to those found on shield volcanoes on Earth. Images of the Martian surface reveal many hundreds of volcanoes. Most of the largest volcanoes are associated with the Tharsis bulge, but many smaller ones are found in the northern plains.
- 3 The great height of Martian volcanoes is a direct consequence of the planet’s low surface gravity. As lava flows and spreads to form a shield volcano, the volcano’s eventual height depends on the new mountain’s ability to support its own weight. The lower the gravity, the lesser the weight and the greater the height of the mountain. It is no accident that Maxwell Mons on Venus and the Hawaiian shield volcanoes on Earth rise to about the same height (about 10 kilometers) above their respective bases—Earth and Venus have similar surface gravity. Mars’s surface gravity is only 40 percent that of Earth, so volcanoes rise roughly 2.5 times as high. Are the Martian shield volcanoes still active? Scientists have no direct evidence for recent or ongoing eruptions, but if these volcanoes were active as recently as 100 million years ago (an estimate of the time of last eruption based on the extent of impact cratering on their slopes), some of them may still be at least intermittently active. Millions of years, though, may pass between eruptions.
- 4 Another prominent feature of Mars’s surface is cratering. The Mariner spacecraft found that the surface of Mars, as well as that of its two moons, is pitted with impact craters formed by meteoroids falling in from space. As on our Moon, the smaller craters are often filled with surface matter—mostly dust—confirming that Mars is a dry desert world. However, Martian craters get filled in considerably faster than their lunar counterparts. On the Moon, ancient craters less than 100 meters across (corresponding to depths of about 20 meters) have been obliterated, primarily by meteoritic erosion. On Mars, there are relatively few craters less than about 5 kilometers in diameter. The Martian atmosphere is an efficient erosive agent, with Martian winds transporting dust from place to place and erasing surface features much faster than meteoritic impacts alone can obliterate them.



5

As on the Moon, the extent of large impact cratering (i.e., craters too big to have been filled in by erosion since they were formed) serves as an age indicator for the Martian surface. Age estimates ranging from four billion years for Mars's southern highlands to a few hundred million years in the youngest volcanic areas were obtained in this way.

6

The detailed appearance of Martian impact craters provides an important piece of information about conditions just below the planet's surface. Martian craters are surrounded by ejecta (debris formed as a result of an impact) that looks quite different from its lunar counterparts. A comparison of the Copernicus crater on the Moon with the (fairly typical) crater Yuty on Mars demonstrates the differences. The ejecta surrounding the lunar crater is just what one would expect from an explosion ejecting a large volume of dust, soil, and boulders. However, the ejecta on Mars gives the distinct impression of a liquid that has splashed or flowed out of the crater. Geologists think that this fluidized ejecta crater indicates that a layer of permafrost, or water ice, lies just a few meters under the surface. Explosive impacts heated and liquefied the ice, resulting in the fluid appearance of the ejecta.



For each question, choose one answer unless there are special directions.

21. The word “enormous” in paragraph 1 is closest in meaning to
- (A) important
 - (B) extremely large
 - (C) highly unusual
 - (D) active
22. According to paragraph 1, Olympus Mons differs from volcanoes on the Tharsis bulge in that Olympus Mons
- (A) has more complex geologic features
 - (B) shows less impact cratering
 - (C) is taller
 - (D) was formed at a later time
23. According to paragraphs 1 and 2, which of the following is NOT true of the shield volcanoes on the Tharsis bulge?
- (A) They have broad, sloping sides.
 - (B) They are smaller than the largest volcano on Mars.
 - (C) They have channels that resemble the lava channels of volcanoes on Earth.
 - (D) They are over 25 kilometers tall.
24. In paragraph 3, why does the author compare Maxwell Mons on Venus to the Hawaiian shield volcanoes on Earth?
- (A) To help explain the relationship between surface gravity and volcano height
 - (B) To explain why Mars’s surface gravity is only 40 percent of Earth’s
 - (C) To point out differences between the surface gravity of Earth and the surface gravity of Venus
 - (D) To argue that there are more similarities than differences between volcanoes on different planets
25. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 3 ? Incorrect choices change the meaning in important ways or leave out essential information.
- (A) Although direct evidence of recent eruptions is lacking, scientists believe that these volcanoes were active as recently as 100 million years ago.
 - (B) Scientists estimate that volcanoes active more recently than 100 million years ago will still have extensive impact cratering on their slopes.
 - (C) If, as some evidence suggests, these volcanoes erupted as recently as 100 million years ago, they may continue to be intermittently active.
 - (D) Although these volcanoes were active as recently as 100 million years ago, there is no direct evidence of recent or ongoing eruptions.



26. According to paragraph 4, what is demonstrated by the fact that craters fill in much faster on Mars than on the Moon?
- (A) Erosion from meteoritic impacts takes place more quickly on Mars than on the Moon.
 - (B) There is more dust on Mars than on the Moon.
 - (C) The surface of Mars is a dry desert.
 - (D) Wind is a powerful eroding force on Mars.
27. According to paragraph 5, what have scientists been able to determine from studies of large impact cratering on Mars?
- (A) Some Martian volcanoes are much older than was once thought.
 - (B) The age of Mars's surface can vary from area to area.
 - (C) Large impact craters are not reliable indicators of age in areas with high volcanic activity.
 - (D) Some areas of the Martian surface appear to be older than they actually are.
28. According to paragraph 6, the ejecta of Mars's crater Yuty differs from the ejecta of the Moon's Copernicus crater in that the ejecta of the Yuty crater
- (A) has now become part of a permafrost layer
 - (B) contains a large volume of dust, soil, and boulders
 - (C) suggests that liquid once came out of the surface at the crater site
 - (D) was thrown a comparatively long distance from the center of the crater



29. **Directions:** Look at the part of the passage displayed below with the letters (A), (B), (C), and (D). Where would the following sentence best fit?

This surface feature has led to speculation about what may lie under Mars's surface.

The detailed appearance of Martian impact craters provides an important piece of information about conditions just below the planet's surface. Martian craters are surrounded by ejecta (debris formed as a result of an impact) that looks quite different from its lunar counterparts. A comparison of the Copernicus crater on the Moon with the (fairly typical) crater Yuty on Mars demonstrates the differences. The ejecta surrounding the lunar crater is just what one would expect from an explosion ejecting a large volume of dust, soil, and boulders. (A) However, the ejecta on Mars gives the distinct impression of a liquid that has splashed or flowed out of the crater. (B) Geologists think that this fluidized ejecta crater indicates that a layer of permafrost, or water ice, lies just a few meters under the surface. (C) Explosive impacts heated and liquefied the ice, resulting in the fluid appearance of the ejecta. (D)

- (A) Choice A
- (B) Choice B
- (C) Choice C
- (D) Choice D



30. **Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the 3 answer choices that express the most important ideas in the passage. Some sentences 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.

Choose 3 answers.

Volcanoes and impact craters are major features of Martian geology.

-
-
-

Answer Choices

- (A) Plate motion on Mars, once considered to have played no role in shaping the planet's surface, is now seen as being directly associated with the planet's earliest volcanoes.
- (B) Mars has shield volcanoes, some of which are extremely tall because of the planet's low surface gravity.
- (C) Although the erosive power of the Martian atmosphere ensures that Mars has fewer craters than the Moon does, impact craters are prominent on Mars's surface.
- (D) Scientists cannot yet reliably estimate the age of the Martian surface because there has been too much erosion of it.
- (E) Scientists have been surprised to discover that conditions just below the surface of Mars are very similar to conditions just below the surface of the Moon.
- (F) Studies of crater ejecta have revealed the possibility of a layer of permafrost below the surface of Mars.

This is the end of Section 1.

If you finish before time is called, you may check your work on Section 1 only.



Do not work on any other section of the test.
The test administrator will tell you when to begin the next section.



Section 2: Listening Section

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

You will listen to some conversations and lectures and answer questions about them. While you listen, you will see the word:

Listen:

When you listen to a lecture, you will also see the name of the course. You may also see words or phrases that appear on a blackboard during the lecture.

You will hear each conversation and lecture only **one** time. While you listen, you may take notes in the **Notes** areas provided in this test book. You may use your notes to help you answer the questions. Your notes will **not** be scored.

The questions about each conversation and lecture are written in the test book and are read aloud. After each question is read, you will have **30 seconds** to mark your answer(s) on the Listening Section Answer Sheet.

The questions typically ask about the main idea and supporting details. Some questions ask about a speaker's purpose or attitude. Answer the questions based on what is stated or implied by the speakers.

Some questions have special directions:

- Some questions require two answers to get 1 point. If you choose only one answer, you will not get any points. For these questions, you will see this:
Choose 2 answers.
- In some questions, you will hear part of the conversation or lecture again. For these questions, you will see this:
Listen.

Now you will listen to the first conversation.

2

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Listen to Track 1.

Listen:

Notes Area

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





For each question, choose one answer unless there are special directions.

1. Why does the man go to see the professor?
 - (A) To find out how to distinguish between different types of whale songs
 - (B) To request permission to change the topic of his paper
 - (C) To discuss the difference between using the Internet and using books to find sources
 - (D) To get help locating some information for his paper

2. What is the topic of the man's paper?
 - (A) How whales hold their breath
 - (B) Whale migration patterns
 - (C) Characteristics of whale habitats
 - (D) The differences between the circulatory system of whales and that of other mammals

3. What is the professor's attitude toward the man's question about how whales hold their breath?
 - (A) She thinks he should not spend any more time looking for the answer.
 - (B) She is surprised because she has already addressed this question in class.
 - (C) She dismisses it as unimportant.
 - (D) She is disappointed that he does not already know the answer.

4. Why does the professor mention the limited time students have to complete their papers?
 - (A) To suggest that looking at research on the Internet is a good way to save time
 - (B) To point out that the library has reduced the amount of time it is open each day
 - (C) To indicate her expectations for the amount of research to be done for the paper
 - (D) To emphasize the importance of starting to write the paper a couple of weeks before it is due

5. According to the professor, how does a whale conserve oxygen while underwater?
Choose 2 answers.
 - (A) Its heart rate decreases.
 - (B) Its lung capacity temporarily increases.
 - (C) It slows the pace of its swimming.
 - (D) Blood flow to certain organs is decreased.



Listen to Track 2.

Listen:



Notes Area

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





For each question, choose one answer unless there are special directions.

6. What is the lecture mainly about?
- (A) The importance of creating believable characters in plays
 - (B) The influence of the literature of “realism” on French theater
 - (C) A successful standard formula for writing plays
 - (D) A famous example of a well-made play
7. According to the professor, why did some playwrights write the end of a play before the beginning?
- (A) To produce multiple scripts as quickly as possible
 - (B) To prevent the audience from using logic to guess the ending
 - (C) To avoid writing endings similar to those of other plays
 - (D) To ensure that the plot would develop in a logical manner
8. Why does the professor mention a conversation between two servants?
- (A) To give examples of typical characters in a well-made play
 - (B) To show how background information might be revealed in a well-made play
 - (C) To explain why *Romeo and Juliet* can be considered a well-made play
 - (D) To explain how playwrights develop the obligatory scene of a well-made play
9. According to the professor, what dramatic elements are typically included in a well-made play to help move the plot forward?
Choose 2 answers.
- (A) A series of major changes in the hero’s apparent chances of success
 - (B) The introduction of new characters midway through the play
 - (C) Information known to the audience but not to the main characters
 - (D) The movement of major characters from one setting to another
10. What does the professor imply about the obligatory scene and the denouement?
- (A) The difference between them might be unclear to some people.
 - (B) Both are useful techniques for developing realistic characters.
 - (C) The denouement usually occurs within the obligatory scene.
 - (D) The obligatory scene is usually less exciting than the denouement.
11. Listen again to part of the lecture. Then answer the question. **Listen.**
- Why does the professor say this: **Listen.**
- (A) To help students understand the meaning of a new term
 - (B) To indicate that his point is not related to the main topic of the lecture
 - (C) To emphasize one element of a play over all others
 - (D) To begin to summarize the main points of the lecture

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Listen to Track 3.

Listen:

Meteorology

Notes Area

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

WAIT



For each question, choose one answer unless there are special directions.

12. What does the professor mainly discuss?
- (A) Current research that examines cloud formation
 - (B) Hypotheses about how clouds produce rain
 - (C) Effects of air movement on raindrops
 - (D) Reasons for studying raindrop formation
13. According to the professor, what often happens to water droplets in clouds when they reach a size of 10 micrometers?
- (A) They stop growing.
 - (B) They begin to fall as rain.
 - (C) They attach to larger particles in the air.
 - (D) They become visible to the human eye.
14. What does the discussion of the collision and coalescence process help explain?
- (A) One way new clouds are formed in the Caribbean region
 - (B) The violence of the process of cloud formation
 - (C) How water droplets larger than 40 micrometers form raindrops
 - (D) Factors that keep water droplets smaller than 40 micrometers from increasing in size
15. According to the turbulence hypothesis, what is the effect of increased turbulence inside a cloud?
- (A) It increases the number of collisions between droplets.
 - (B) It accelerates the disintegration of that cloud.
 - (C) It increases the number of raindrops a cloud can hold.
 - (D) It encourages the formation of unusually large raindrops.
16. What does the professor imply about recent research conducted in the Caribbean Sea?
- (A) It helped disprove several hypotheses about droplet formation.
 - (B) It has not yet produced clear support for any current hypotheses.
 - (C) It has provided researchers with new hypotheses about air movement in clouds.
 - (D) It is not as thorough as other studies about raindrop formation.
17. Listen again to part of the lecture. Then answer the question. **Listen.**
- Why does the professor say this: **Listen.**
- (A) To keep the students attentive by employing humor
 - (B) To help students understand a difficult concept
 - (C) To correct a previous statement
 - (D) To emphasize a point he is making



Listen to Track 4.

Listen:

Notes Area

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



2**2****2****2****2****2****2****2**

For each question, choose one answer unless there are special directions.

18. What is the conversation mainly about?
- (A) The student's eligibility to graduate next semester
 - (B) The student's difficulties in registering for classes
 - (C) A difficult class the student must take next semester
 - (D) Possible elective choices in the student's degree program
19. According to the woman, why was the program's curriculum changed?
- (A) To attract more international students to the program
 - (B) To reflect the growing importance of international business
 - (C) To take advantage of the expertise of new faculty members
 - (D) To give students a stronger background in management
20. What does the woman imply about the new departmental requirements?
- (A) They will not affect the student's plans for graduation.
 - (B) They will not be officially approved by the department until next year.
 - (C) They will be limited to students specializing in international business.
 - (D) They will be similar to recent changes made in other departments at the university.
21. Why does the woman mention writing a letter?
- (A) To point out the best way for the student to contact the dean's office
 - (B) To confirm that a personal letter is a graduation requirement
 - (C) To indicate that she is willing to provide the student with further assistance
 - (D) To emphasize that the student will need special permission to graduate
22. Listen again to part of the conversation. Then answer the question. **Listen.**
- Why does the woman say this: **Listen.**
- (A) To suggest that the student has not fulfilled all of his requirements
 - (B) To indicate one of the new graduation requirements
 - (C) To find out the student's opinion about a particular class
 - (D) To be sure that the student has taken a required class

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Listen to Track 5.

Listen:



Notes Area

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

WAIT



For each question, choose one answer unless there are special directions.

23. What is the lecture mainly about?
- (A) Why the Salon exhibitions became popular among women artists in Paris
 - (B) Why French society did not approve of art schools for women
 - (C) How opportunities for women artists in Paris improved
 - (D) How women artists in Paris cooperated with one another
24. What point does the professor make about Julian when he mentions that Julian's art school offered some classes only for women?
- (A) Julian's school was the first art school in Paris to offer women-only classes.
 - (B) Julian wanted to encourage the distinctive style of women in Paris.
 - (C) Julian viewed himself as a social reformer.
 - (D) Julian possessed outstanding business skills.
25. What does the professor emphasize as one benefit of competition in women's classes?
- (A) Women gained more confidence in their artistic abilities.
 - (B) Women became instructors in private art studios.
 - (C) Women were able to sell their paintings for large amounts of money.
 - (D) Women created new styles of painting.
26. According to the professor, what were two ways that the situation of women artists had changed by the end of the nineteenth century in Paris?
Choose 2 answers.
- (A) Women and men took art classes together.
 - (B) Women artists played a greater role in the Salon exhibitions.
 - (C) More schools were established by women artists.
 - (D) Fewer women artists were traveling to Paris.
27. What does the professor imply about Bashkirtseff's painting *In the Studio*?
- (A) It was one of many paintings that depicted a women's studio.
 - (B) It did not bring Bashkirtseff recognition for her artistic ability.
 - (C) It was criticized for an unrealistic depiction of women artists.
 - (D) It was beneficial for both Bashkirtseff and the school where she studied.



28. Listen again to part of the conversation. Then answer the question. **Listen.**

What does the professor mean when he says this: **Listen.**

- (A) Paris was a popular place to visit, but not the best place to study art.
- (B) Paris was the most important place for an artist to study and work.
- (C) Living in Paris was difficult for women artists from other countries.
- (D) Studying in Paris was beneficial for some artists, but not for others.

This is the end of Section 2.
Stop work on Section 2.



Do not work on any other section of the test.
There will be a 10 minute rest break prior to the Writing section.
The test administrator will tell you when to begin the next section.



Section 3: Writing Section

Directions: This section measures your ability to use writing to communicate in an academic environment.

There are two tasks in this section. For the first writing task, you will read a passage and listen to a lecture. Then you will answer a question based on what you have read and heard. For the second writing task, you will answer a question based on your own knowledge and experience.

For each question, you will write your response on the answer sheet for that question. Try to answer as completely as possible in the time allowed. Any text outside the boxed area of the answer sheet will not be scored.



Question 1

Directions: You will have 3 minutes to read a passage about an academic topic. While you read, you may take notes in the **Notes** area.

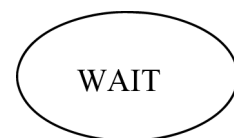
Then you will listen to a lecture about the same topic. While you listen, you will see the word: **Listen:**

You may take notes while you listen. Your notes will not be scored.

After the lecture is over, you will have 20 minutes to write a response to a question that asks you about the relationship between the lecture 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. While you are writing, you may look again at the reading passage and use your notes.

Your response will be evaluated on the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

You must write your response on **Writing Section Answer Sheet 1**.





Reading Time: 3 minutes

Populations of the yellow cedar, a species of tree that is common in northwestern North America, have been steadily declining for more than a century now, since about 1880. Scientists have advanced several hypotheses to explain this decline.

One hypothesis is that the yellow cedar decline may be caused by insect parasites, specifically the cedar bark beetle. This beetle is known to attack cedar trees; the beetle larvae eat the wood. There have been recorded instances of sustained beetle attacks overwhelming and killing yellow cedars, so this insect is a good candidate for the cause of the tree's decline.

A second hypothesis attributes the decline to brown bears. Bears sometimes claw at the cedars in order to eat the tree bark, which has a high sugar content. In fact, the cedar bark can contain as much sugar as the wild berries that are a staple of the bears' diet. Although the bears' clawing is unlikely to destroy trees by itself, their aggressive feeding habits may critically weaken enough trees to be responsible for the decline.

The third hypothesis states that gradual changes of climate may be to blame. Over the last hundred years, the patterns of seasonal as well as day-to-day temperatures have changed in northwestern North America. These changes have affected the root systems of the yellow cedar trees: the fine surface roots now start growing in the late winter rather than in the early spring. The change in the timing of root growth may have significant consequences. Growing roots are sensitive and are therefore likely to suffer damage from partial freezing on cold winter nights. This frozen root damage may be capable of undermining the health of the whole tree, eventually killing it.

Notes Area

You may take notes here while you read. You may use your notes to help you answer the question. Your notes will **not** be scored.



Listen to Track 6.

Listen:

Notes Area

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





Response Time: 20 minutes

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

You will have 20 minutes to plan and write your response.

Your response will be evaluated on the quality of your writing and on how well your response presents the points in the lecture and their relationship to the reading passage. Typically, an effective response will be 150 to 225 words.

The reading passage is repeated on the next page for your reference. You may use your notes on previous pages to help you answer.

Notes Area

You may use this area to plan your response, but you must write your final response in the boxed area on **Writing Section Answer Sheet 1**.



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If you finish before time is called, check your work on this question **only**.
Do not work on any other section of the test.



The test administrator will tell you when to begin the next question.



Question 2

Response Time: 30 minutes

Do you agree or disagree with the following statement?

Television advertising directed toward young children (aged two to five) should not be allowed.

Use specific reasons and examples to support your answer.

Directions: Write an essay in response to the question above. Make sure to write it on **Writing Section Answer Sheet 2**. You will have 30 minutes to plan, write, and revise your essay.

The question asks you to state, explain and support your opinion on an issue. Your essay will be evaluated 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. Typically, an effective essay will contain a minimum of 300 words.



Notes Area

You may use this area to plan your response, but you must write your final response in the boxed area on **Writing Section Answer Sheet 2**.

If you finish before time is called, check your work on this question **only**.
Do not work on any other section of the test.



The test administrator will now collect all test books and answer sheets.

TOEFL® iBT Paper Edition Test Book General Directions

This is a test of your ability to understand and use the English language. This portion of the test contains three sections. Each section begins with a specific set of directions. Be sure you understand the directions before you begin to work on each section. You will take the Speaking section during a separate test administration.

If you need the test administrator for any reason during the test session, please raise your hand.

You should work quickly but carefully. Do not spend too much time on any one question. If you finish a section early, you **cannot** go on to the next section, and you **cannot** go back to a section you have already worked on.

Some questions are more difficult than others, but try to answer every one. Your score will be based on the number of questions you answer correctly. If you are not sure of the answer to a question, make the best guess that you can. It is to your advantage to answer every question, even if you have to guess.

For the Reading and Listening sections, you must mark all of your answers on the **Reading and Listening** sections of your **Answer Sheet**. Do not mark your answers in the test book. When you mark your answers on your answer sheet, you must:

- Use a medium-soft (#2 or HB) black-lead pencil.
- Mark the space that corresponds to the answer you choose for each question. Also, make sure you mark your answer in the row with the same number as the number of the question you are answering. You may not make any corrections after time is called.
- Most questions require only one answer. If a question requires more than one answer, it will have special directions.
- Carefully and completely fill in each intended circle with a dark mark so you cannot see the letter inside the circle; light or partial marks may not be read properly by the scoring machine.
- Erase all extra marks completely. If you decide to change an answer, completely erase your old answer and clearly mark your new answer.

The circles on the **Reading and Listening** sections of the **Answer Sheet** are arranged in a horizontal format. The examples below show the **correct** and **wrong** ways of marking the answer sheet. Be sure to fill in the circles on your answer sheet the **correct** way.

- For questions that require only one answer:

CORRECT	WRONG	WRONG	WRONG	WRONG
(A) (B) ● (D)	(A) (B) ✓ (D)	(A) (B) ✗ (D)	(A) (B) ● (C) (D)	(A) (B) ● (D)

- For questions that require more than one answer:

CORRECT	WRONG	WRONG	WRONG	WRONG
● (B) ● (D)	✓ (A) (B) ✓ (D)	✗ (A) (B) ✗ (D)	● (A) (B) ● (C) (D)	● (A) (B) ● (D)

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