

توجه: از ارسال فایل برای گروه ها یا افراد دیگر خوداری کنید چون به هیچ عنوان راضی نیستیم و حق الناس است. برای تهیه فایل آزمون های جدید با آیدی تلگرامی و شماره تلفن زیر در ارتباط باشید.

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## Practice Test 151

Beads were probably the first durable ornaments humans possessed, and the intimate relationship they had with their owners is reflected in the fact that beads are among the most common items found in ancient archaeological sites. In the past, as today, men, women, and children **adorned** themselves with beads. In some cultures still, certain beads are often worn from birth until death, and then are buried with their owners for the afterlife. Abrasion due to daily wear alters the surface features of beads, and if they are buried for long, the effects of corrosion can further change their appearance. Thus, interest is imparted to the bead both by use and the effects of time.

Besides their wearability, either as jewelry or incorporated into articles of **attire**, beads possess the desirable characteristics of every collectible: they are durable, portable, available in infinite variety, and often valuable in their original cultural context as well as in today's market. Pleasing to look at and touch, beads come in shapes, colors, and materials that almost compel one to handle them and to sort them. Beads are miniature bundles of secrets waiting to be revealed: their history, manufacture, cultural context, economic role, and ornamental use are all points of information one hopes to **unravel**. Even the most **mundane** beads may have traveled great distances and been exposed to many human experiences. The bead researcher

must gather information from many diverse fields. In addition to having to be a generalist while specializing in what may seem to be a narrow field, the researcher is faced with the problem of primary materials that have little or no documentation. Many ancient beads that are of ethnographic interest have often been separated from their original cultural context. The special attractions of beads contribute to the uniqueness of bead research. While often regarded as the "small change of civilizations," beads are a part of every culture, and they can often be used to date archaeological sites and to designate the degree of mercantile, technological, and cultural sophistication.

**1. What is the main subject of the passage?**

- (A) Materials used in making beads. (B) How beads are made.  
(C) The reasons for studying beads. (D) Different types of beads.

**2. The word "adorned" in line 4 is closest in meaning to**

- (A) protected (B) decorated (C) purchased (D) enjoyed

**3. The word "attire" in line 10 is Closest in meaning to**

- (A) ritual (B) importance (C) clothing (D) history

**4. All of the following are given as characteristics of collectible objects**

**EXCEPT.....**

- (A) durability (B) portability (C) value (D) scarcity

**5. According to the passage, all of the following are factors that make people want to touch beads EXCEPT**

- (A) shape (B) color (C) material (D) odor

6. The word "unravel" in line 17 is closest in meaning to

- (A) communicate (B) transport (C) improve (D) discover

7. The word "mundane" in line 17 is closest in meaning to

- (A) carved (B) beautiful (C) ordinary (D) heavy

8. It is difficult to trace the history of certain ancient beads because they

(A) are small in size.

(B) have been buried underground.

(C) have been moved from their original locations.

(D) are frequently lost.

9. Knowledge of the history of some beads may be useful in the studies done by which of the following?

(A) Anthropologist

(B) Agricultural experts

(C) Medical researchers

(D) Economists

10. Where in the passage does the author describe why the appearance beads may change?

(A) Lines 3-4

(B) Lines 6-8

(C) Lines 12-13

(D) Lines 20-22

### Practice Test 152

In the world of birds, bill design is a prime example of evolutionary fine-tuning.

Shorebirds such as oystercatchers use their bills to pry open the tightly sealed shells of their prey; hummingbirds have stiletto-like bills to probe the deepest nectar-

bearing flowers; and kiwis smell out earthworms thanks to nostrils located at the tip of their beaks. But few birds are more intimately tied to their source of sustenance than are crossbills. Two species of these finches, named for the way the upper and lower parts of their bills cross, rather than meet in the middle, reside in the evergreen forests of North America and feed on the seeds held within the cones of coniferous trees.

The efficiency of the bill is evident when a crossbill locates a cone. Using a lateral motion of its lower mandible, the bird separates two overlapping scales on the cone and exposes the seed. The crossed mandibles enable the bird to exert a powerful biting force at the bill tips, **which** is critical for maneuvering them between the scales and spreading the scales apart. Next, the crossbill snakes its long tongue into the **gap** and draws out the seed. Using the combined action of the bill and tongue, the bird cracks open and **discards** the woody seed covering and swallows the nutritious inner kernel.

This whole process takes but a few seconds and is repeated hundreds of times a day. The bills of different crossbill species and subspecies vary – some are stout and deep, **others** more slender and shallow. As a rule, large-billed crossbills are better at securing seeds from large cones, while small-billed crossbills are more **deft** at removing the seeds from small, thin-scaled cones. Moreover, the degree to which cones are naturally slightly open or tightly closed helps determine which bill design is the best. One anomaly is the subspecies of red crossbill known as the Newfoundland crossbill. This bird has a large, **robust** bill, yet most of Newfoundland's conifers have small cones, the same kind of cones that the slender-billed white-wings rely on.

**1. What does the passage mainly discuss?**

- (A) The importance of conifers in evergreen forests.
- (B) The efficiency of the bill of the crossbill.**
- (C) The variety of food available in a forest.
- (D) The different techniques birds use to obtain food.

**2. Which of the following statements best represents the type of "evolutionary fine-tuning" mentioned in line 1?**

- (A) Different shapes of bills have evolved depending on the available food supply.**
- (B) White-wing crossbills have evolved from red crossbills.
- (C) Newfoundland's conifers have evolved small cones.
- (D) Several subspecies of crossbills have evolved from two species.

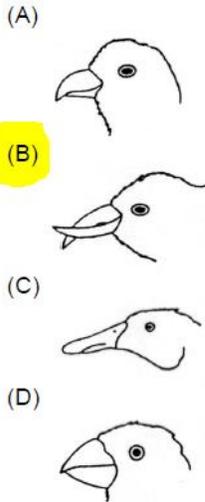
**3. Why does the author mention oystercatchers, hummingbirds, and kiwis in lines 2-4?**

- (A) They are examples of birds that live in the forest.
- (B) Their beaks are similar to the beak of the crossbill.
- (C) They illustrate the relationship between bill design and food supply.**
- (D) They are closely related to the crossbill.

**4. Crossbills are a type of.....**

- (A) shorebird
- (B) hummingbird
- (C) kiwi
- (D) finch**

5. Which of the following most closely resembles the bird described in lines 6-8?



6. The word "which" in line 13 refers to

- (A) seed                      (B) bird                      (C) force                      (D) bill

7. The word "gap" in line 15 is closest in meaning to

- (A) opening                      (B) flower                      (C) mouth                      (D) tree

8. The word "discards" in line 16 is closest in meaning to

- (A) eats                      (B) breaks                      (C) finds out                      (D) gets rid of

9. The word "others" in line 20 refers to

- (A) bills                      (B) species                      (C) seeds                      (D) cones

10. The word "deft" in line 22 is closest in meaning to

- (A) hungry                      (B) skilled                      (C) tired                      (D) pleasant

11. The word "robust" in line 25 is closest in meaning to

(A) strong

(B) colorful

(C) unusual

(D) sharp

**12. In what way is the Newfoundland crossbill an anomaly?**

(A) It is larger than the other crossbill species.

(B) It uses a different technique to obtain food.

(C) The size of its bill does not fit the size of its food source.

(D) It does not live in evergreen forests.

### **Practice Test 153**

Broad-tailed hummingbirds often nest in quaking aspens, slender deciduous trees with smooth, gray-green bark found in the Colorado Rockies of the western United States. After flying some 2,000 kilometers north from where they have wintered in Mexico, the hummingbirds need six weeks to build a nest, incubate their eggs, and raise the chicks.

A second nest is feasible only if the first fails early in the season. Quality, not quantity, is what **counts** in hummingbird reproduction. A nest on the lowest intact branch of an aspen will give a hummingbird a good view, a **clear** flight path, and protection for her young. Male hummingbirds claim feeding territories in open meadows where, from late May through June, **they** mate with females coming to feed but take no part in nesting. Thus when the hen is away to feed, the nest is unguarded. While the smooth bark of the aspen trunk generally offers a poor grip for the claws of a hungry squirrel or weasel, aerial attacks, from a hawk, owl, or gray jay, are more likely.

The choice of where to build the nest is based not only on the branch itself but also on what hangs over it. A crooked deformity in the nest branch, a second, unusually close branch overhead, or proximity to part of a trunk bowed by a past ice storm are features that provide shelter and make for an attractive nest site. **Scarcely** larger than a halved golf ball, the nest is painstakingly constructed of spiderwebs and plant down, decorated and camouflaged outside with paper-like bits of aspen bark held together with more strands of spider silk. By early June it will hold two pea-sized eggs, which each weigh one-seventh of the mother's weight, and in sixteen to nineteen days, two chicks.

**1. What aspect of broad-tailed hummingbird behavior does the passage mainly discuss?**

- (A) Migration routes
- (B) Mating habits
- (C) Caring for the young
- (D) Selection of nest sites**

**2. According to the passage, in what circumstances do hummingbirds build a second nest?**

- (A) If the winter is unusually warm.
- (B) If the chicks in the first nest hatch early.
- (C) If there is an unusually large supply of food.
- (D) If the eggs are destroyed early in the season.**

**3. The word "counts" in line 7 is closest in meaning to**

- (A) weighs
- (B) estimates
- (C) matters**
- (D) numbers

4. The word "clear" in line 8 is closest in meaning to

- (A) bright                      (B) exact                      **(C) unobstructed**                      (D) transparent

5. The word "they" in line 10 refers to

- (A) male hummingbirds**                      (B) territories                      (C) meadows                      (D) females

6. According to the passage, which of the following is true of the male broad-tailed hummingbird?

- (A) It finds food for the female and the chicks.  
(B) It protects the nest while the female searches for food.  
**(C) It is not involved in caring for the chicks.**  
(D) It shares nesting duties equally with the female.

7. It can be inferred from the passage that the broad-tailed hummingbirds' eggs and chicks are most vulnerable to attacks by...

- (A) insects                      (B) humans                      **(C) birds**                      (D) squirrels

8. Which of the following would be a good location for a broad-tailed hummingbird to build its nest?

- (A) A branch near the top of a tree.                      (B) The longest branch of a tree.  
(C) A thick branch.                      **(D) A protected branch.**

9. The word "Scarcely" in line 19 is closest in meaning to

- (A) obviously                      **(B) barely**                      (C) consistently                      (D) needlessly

10. Which of the following was NOT mentioned in the passage as a nest-building material of the broad-tailed hummingbird?

- (A) Paper**                      (B) Plant down                      (C) Spiderwebs                      (D) Tree bark

**11. The author compares the size of the broad-tailed hummingbird's nest to**

- (A) a pea      (B) a golf ball      (C) a spiderweb      (D) an egg

**12. According to the passage, how long does it take for broad-tailed hummingbird eggs to hatch?**

- (A) Less than a week      (B) Two to three weeks  
(C) One month      (D) More than six weeks

**13. Where in the passage does the author mention the number of eggs generally found in the nests of broad-tailed hummingbirds?**

- (A) Line 5      (B) Lines 10-11      (C) Lines 15-17      (D) Lines 20-22

### **Practice Test 154**

According to the best evidence gathered by space probes and astronomers, Mars is an inhospitable planet, more similar to Earth's Moon than to Earth itself—a dry, **stark**, seemingly lifeless world. Mars' air pressure is equal to Earth's at an altitude of 100,000 feet. The air **there** is 95% carbon dioxide. Mars has no ozone layer to screen out the Sun's lethal radiation. Daytime temperatures may reach above freezing, but because the planet is blanketed by the mere wisp of an atmosphere, the heat radiates back into space. Even at the equator, the temperature drops to  $-50^{\circ}\text{C}$  ( $-60^{\circ}\text{F}$ ) at night. Today there is no liquid water, although valleys and channels on the surface show evidence of having been carved by running water. The polar ice caps are made of frozen water and carbon dioxide, and water may be frozen in the ground as permafrost.

Despite these difficult conditions, certain scientists believe that there is a possibility of transforming Mars into a more Earth-like planet. Nuclear reactors might be used to melt frozen gases and eventually build up the atmosphere. This in turn could create a "greenhouse effect" that would stop heat from radiating back into space. Liquid water could be thawed to form a polar ocean. Once enough ice has melted, suitable plants could be introduced to build up the level of oxygen in the atmosphere so that, in time, the planet would support animal life from Earth and even permanent human colonies. "This was once thought to be so far in the future as to be irrelevant," said Christopher McKay, a research scientist at the National Aeronautics and Space Administration. "But now it's starting to look practical. We could begin work in four or five decades."

The idea of "terra-forming" Mars, as enthusiasts call it, has its roots in science fiction. But as researchers develop a more profound understanding of how Earth's ecology supports life, they have begun to see how it may be possible to create similar conditions on Mars. Don't plan on homesteading on Mars any time soon, though. The process could take hundreds or even thousands of years to complete, and the cost would be staggering.

**1. With which of the following is the passage primarily concerned?**

**(A) The possibility of changing the Martian environment.**

(B) The challenge of interplanetary travel.

(C) The advantages of establishing colonies on Mars.

(D) The need to study the Martian ecology.

**2. The word "stark" in line 3 is closest in meaning to**

**(A) harsh**

(B) unknown

(C) dark

(D) distant

**3. The word "there" in line 4 refers to**

(A) a point 100 miles above the Earth

(B) the Earth's Moon

**(C) Mars**

(D) outer space

**4. Which of the following does the author NOT list as a characteristic of the planet Mars that would make colonization difficult?**

- (A) There is little liquid water.
- (B) Daytime temperatures are dangerously high.**
- (C) The Sun's rays are deadly.
- (D) Nighttime temperatures are extremely low.

**5. According to the passage, the Martian atmosphere today consists mainly of**

- (A) carbon dioxide**
- (B) oxygen
- (C) ozone
- (D) water vapor

**6. It can be inferred from the passage that the "greenhouse effect" mentioned in line 15 is**

- (A) the direct result of nuclear reactions.
- (B) the cause of low temperatures on Mars.
- (C) caused by the absence of green plants.
- (D) a possible means of warming Mars.**

**7. The word "suitable" in line 17 is closest in meaning to**

- (A) resistant
- (B) altered
- (C) appropriate**
- (D) native

**8. According to Christopher McKay, the possibility of transforming Mars**

- (A) could occur only in science fiction stories.
- (B) will not begin for hundreds, even thousands of years.
- (C) is completely impractical.
- (D) could be started in 40 to 50 years.**

**9. As used in line 23, the term "terra-forming" refers to**

- (A) a process for adapting plants to live on Mars.
- (B) a means of transporting materials through space.
- (C) a method of building housing for colonists on Mars.
- (D) a system of creating Earth-like conditions on other planets.**

10. The phrase "more profound" in lines 24 is closest in meaning to

- (A) deeper (B) more practical  
(C) more up-to-date (D) brighter

11. According to the article, the basic knowledge needed to transform Mars comes from

- (A) the science of astronomy  
(B) a knowledge of Earth's ecology  
(C) data from space probes  
(D) science fiction stories

12. The word "staggering" in line 28 is closest in meaning to

- (A) astonishing (B) restrictive (C) increasing (D) unpredictable

### Practice Test 155

Humans have struggled against weeds since the beginnings of agriculture. Marring our gardens is one of the milder effects of weeds-any plants that thrive where they are unwanted. They clog waterways, destroy wildlife habitats, and impede farming. Their spread eliminates grazing areas and accounts for one-third of all crop loss. They compete for sunlight, nutrients, and water with useful plants. The global need for weed control has been answered mainly by the chemical industry. Its herbicides are effective and sometimes necessary, but some pose serious problems, particularly if misused.

Toxic compounds threaten animal and public health when they accumulate in food plants, ground water, and drinking water. They also harm workers who apply them. In recent years, the chemical industry has introduced several herbicides that are more ecologically sound. Yet new chemicals alone cannot solve the world's weed

problems. **Hence**, scientists are exploring the **innate** weed killing powers of living organisms, primarily insects and microorganisms.

The biological agents now in use are harmless to humans and are environmentally benign. They can be chosen for their ability to attack selected targets and leave crops and other plants untouched. In contrast, some of the most effective chemicals kill virtually all the plants they come in contact with, sparing only **those** that are naturally resistant or have been genetically modified for resistance. Furthermore, a number of biological agents can be administered only once, after which no added **applications** are needed. Chemicals typically must be used several times per growing season.

**1. With what topic does this passage primarily deal?**

- (A) The importance of the chemical industry
- (B) The dangers of toxic chemicals
- (C) Advantages of biological agents over chemical ones**
- (D) A proposal to ban the use of all herbicides

**2. The word "Marring" in line 2 is closest in meaning to**

- (A) spoiling**
- (B) dividing
- (C) replacing
- (D) planting

**3. The word "clog" in line 3 is closest in meaning to**

- (A) drain
- (B) float on
- (C) obstruct**
- (D) grow along

**4. Which of the following terms does the author define in the first paragraph?**

- (A) Grazing areas
- (B) Weeds**
- (C) Wildlife habitats
- (D) Nutrients

**5. Which of the following statements about the use of chemical agents as herbicides would the author most likely agree?**

- (A) It should be increased.
- (B) It has become more dangerous recently.
- (C) It is safe but inefficient.
- (D) It is occasionally required.**

6. Which of the following is NOT given as an advantage of biological agents over chemical herbicides?

- (A) They are less likely to destroy desirable plants.
- (B) They are safer for workers.
- (C) They are more easily available.
- (D) They do not have to be used as often.

7. Which of the following is closest in meaning to the word "Hence" in line 13?

- (A) In addition
- (B) Consequently
- (C) Subsequently
- (D) In contrast

8. The word "innate" in line 13 is closest in meaning to

- (A) natural
- (B) effective
- (C) organic
- (D) active

9. According to the passage, biological agents consist mainly of

- (A) insects and microorganisms
- (B) useful plants
- (C) weeds
- (D) herbicides

10. The word "those" in line 19 refers to

- (A) chemicals
- (B) targets
- (C) plants
- (D) agents

11. The word "applications" in line 25 could best be replaced by which of the following?

- (A) Requests
- (B) Special purposes
- (C) Treatments
- (D) Qualifications

12. Which of the following best describes the organization of the passage?

- (A) A general idea is introduced, and several specific examples are given.
- (B) A recommendation is analyzed and rejected.
- (C) A problem is described, and possible solutions are discussed.
- (D) Two possible causes for a phenomenon are compared.

## Practice Test 156

About 8,000 people looked over the horseless carriages on November 3, 1900, the opening day of the New York Auto Show, and the first opportunity for the automobile industry to show off its wares to a sizable audience. **By happenstance**, the number of people at the show equalled the entire car population at that time. At that time, 10 million bicycles and an unknown number of horse-and-buggies provided the prime means of transportation. Only about 4,000 cars were assembled in the United States in 1900, and only a quarter of those were gasoline powered. (The rest ran on steam or electricity.) After viewing the cars made by 32 car makers, the show's audience favored electric cars because they were quiet. The risk of a boiler explosion turned people away from steamers, and the gasoline powered cars produced smelly **fumes**. The Duryea Motor Wagon Company, which **launched** the American auto industry in 1892, offered an additive designed to mask the smell of the naphtha that it burned.

The prices were not that different from what they are today. Most cost between \$800 and \$1,500, or roughly \$11,000 to \$18,500 in today's prices. Many of the 1900 models were **cumbersome**—the Gasmobile, the Franklin, and the Orient, for example, steered with tillers like boats rather than with steering wheels. The black-tie audience at the show viewed the display more as a social outing than as the extravaganzas that auto shows were about to become.

**1. Approximately how many cars were there in the United States in 1900?**

(A) 4,000

**(B) 8,000**

(C) 10 million

(D) An unknown number

2. Which of the following is closest in meaning to the phrase "By happenstance" as used in line 3?

- (A) Generally (B) For example  
(C) Coincidentally (D) By design

3. Approximately how many of the cars assembled in the year 1900 were gasoline powered?

- (A) 32 (B) 1,000 (C) 2,000 (D) 4,000

4. According to the passage, people at the 1900 New York Auto Show favored cars powered by

- (A) electricity (B) naphtha (C) gasoline (D) steam

5. The word "fumes" in line 11 is closest in meaning to

- (A) fuels (B) grains (C) fires (D) gases

6. Which of the following is closest in meaning to the word "launched" in line 12?

- (A) Joined (B) Designed (C) Initiated (D) Anticipated

7. The purpose of the additive mentioned in line 13 was to

- (A) increase the speed of cars (B) make engines run more efficiently  
(C) hide offensive smells (D) make cars look better

8. What was the highest price asked for a car at the 1900 New York Auto Show in the dollars of that time?

- (A) \$800 (B) \$1,500 (C) \$11,300 (D) \$18,500

9. The word "cumbersome" in line 17 is closest in meaning to

- (A) clumsy (B) unshapely (C) fragile (D) inconvenient

10. Which of the following is NOT mentioned in the passage as steering with a tiller rather than with a steering wheel?

- (A) A Franklin (B) A Duryea (C) An Orient (D) A Gasmobile

**11. The passage implies that the audience viewed the 1900 New York Auto Show primarily as**

(A) a formal social affair

(B) a chance to buy automobiles at low prices

(C) an opportunity to learn how to drive

(D) a chance to invest in one of thirty-two automobile manufacturers

**12. It can be inferred from the passage that auto shows held after 1900**

(A) were more spectacular.

(B) involved fewer manufacturers.

(C) were more formal.

(D) involved less expensive cars.

### **Practice Test 157**

The Sun today is a yellow dwarf star. It is **fueled** by thermonuclear reactions near its center that convert hydrogen to helium. The Sun has existed in its present **state** for about 4 billion, 600 million years and is thousands of times larger than the Earth. By studying other stars, astronomers can predict what the rest of the Sun's life will be like. About 5 billion years from now, the core of the Sun will shrink and become hotter. The surface temperature will fall. The higher temperature of the center will increase the rate of thermonuclear reactions.

The outer regions of the Sun will expand approximately 35 million miles, about the distance to Mercury, which is the closest planet to the Sun. The Sun will then be a red giant star. Temperatures on the Earth will become too hot for life to exist. Once the Sun has used up its thermonuclear energy as a red giant, it will begin to shrink. After it shrinks to the size of the Earth, it will become a white dwarf star. The Sun

may **throw off** huge amounts of gases in violent eruptions called nova explosions as it changes from a red giant to a white dwarf.

After billions of years as a white dwarf, the Sun will have used up all its fuel and will have lost its heat. Such a star is called a black dwarf. After the Sun has become a black dwarf, the Earth will be dark and cold. If any atmosphere remains **there**, it will have frozen onto the Earth's surface.

**1. What is the primary purpose of this passage?**

- (A) To alert people to the dangers posed by the Sun.
- (B) To discuss conditions on Earth in the far future.
- (C) To present a theory about red giant stars.
- (D) To describe changes that the Sun will go through.**

**2. The word "fueled" in line 1 is closest in meaning to**

- (A) powered**
- (B) bombarded
- (C) created
- (D) propelled

**3. The word "state" in line 2 is closest in meaning to**

- (A) shape
- (B) condition**
- (C) location
- (D) size

**4. It can be inferred from the passage that the Sun**

- (A) is approximately halfway through its life as a yellow dwarf**
- (B) has been in existence for 10 billion years
- (C) is rapidly changing in size and brightness
- (D) will continue as a yellow dwarf for another 10 billion years

**5. What will probably be the first stage of change as the Sun becomes a red giant?**

- (A) Its core will cool off and use less fuel.
- (B) Its surface will become hotter and shrink.
- (C) It will throw off huge amounts of gases.
- (D) Its center will grow smaller and hotter.**

**6. When the Sun becomes a red giant, what will conditions be like on Earth?**

- (A) Its atmosphere will freeze and become solid.
- (B) It will be enveloped in the expanding surface of the Sun.
- (C) It will become too hot for life to exist.
- (D) It will be nearly destroyed by nova explosions.

**7. As a white dwarf, the Sun will be**

- (A) the same size as the planet Mercury.
- (B) thousands of times smaller than it is today.
- (C) around 35 million miles in diameter.
- (D) cold and dark.

**8. According to the passage, which of the following best describes the sequence of stages that the Sun will probably pass through?**

- (A) Yellow dwarf, white dwarf, red giant, black giant
- (B) Red giant, white dwarf, red dwarf, nova explosion
- (C) Yellow dwarf, red giant, white dwarf, black dwarf
- (D) White dwarf, red giant, black dwarf, yellow dwarf

**9. The phrase "throw off" in line 13 is closest in meaning to**

- (A) eject
- (B) burn up
- (C) convert
- (D) let in

**10. The word "there" in line 18 refers to**

- (A) our own planet.
- (B) the outer surface of the Sun.
- (C) the core of a black dwarf.
- (D) the planet Mercury.

**11. Which of the following best describes the tone of the passage?**

- (A) Alarmed
- (B) Pessimistic
- (C) Comic
- (D) Objective

## Practice Test 158

It's a sound you will probably never hear, a sickened tree sending out a distress signal. But a group of scientists has heard the cries, and they think some insects also hear the trees and are drawn to **them** like vultures to a dying animal.

Researchers with the u.s. Department of Agriculture's Forest Service fastened sensors to the bark of **parched** trees and clearly heard distress calls. According to one of the scientists, most drought-stricken trees transmit their **plight** in the 50- to 500- kilohertz range. (The unaided human ear can detect no more than 20 kilohertz.) Red oak, maple, white pine, and birch all make slightly different sounds in the form of vibrations at the surface of the wood.

The scientists think that the vibrations are created when the water columns inside tubes that run the length of the tree break, a result of too little water flowing through them. These **fractured** columns send out distinctive vibration patterns. Because some insects communicate at ultrasonic frequencies, they may **pick up** the trees' vibrations and attack the weakened trees.

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

**1. Which of the following is the main topic of the passage?**

- (A) The vibrations produced by insects.
- (B) The mission of the U.S. Forest Service.
- (C) The effect of insects on trees.
- (D) The sounds made by distressed trees.**

**2. The word "**them**" in line 3 refers to**

- (A) trees**
- (B) scientists
- (C) insects
- (D) cries

3. The word "parched" in line 5 is closest in meaning to which of the following?

- (A) Burned      (B) Dehydrated      (C) Recovered      (D) Fallen

4. The word "plight" in line 6 is closest in meaning to

- (A) signal      (B) condition      (C) need      (D) agony

5. It can be inferred from the passage that the sounds produced by the trees

- (A) serve as a form of communication with other trees.  
(B) are the same no matter what type of tree produces them.  
(C) cannot be heard by the unaided human ear.  
(D) fall into the 1-20 kilohertz range.

6. The word "fractured" in line 12 is closest in meaning to

- (A) long      (B) blocked      (C) hollow      (D) broken

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

- (A) Torn roots      (B) Attacks by insects  
(C) Experiments by scientists      (D) Lack of water

8. In line 13, the phrase "pick up" could best be replaced by which of the following?

- (A) Perceive      (B) Lift      (C) Transmit      (D) Attack

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

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

10. It can be inferred that, at the time the passage was written, research concerning the distress signals of trees

- (A) had been conducted many years earlier. (B) had been unproductive up to then.  
(C) was continuing. (D) was no longer sponsored by the government.

## Practice Test 159

The time when humans crossed the Arctic land bridge from Siberia to Alaska seems remote to us today, but actually represents a late stage in the prehistory of humans, an era when polished stone **implements** and bows and arrows were already being used, and dogs had already been domesticated. When **these early migrants** arrived in North America, they found the woods and plains dominated by three types of American mammoths. These elephants were distinguished from today's elephants mainly by their thick, shaggy coats and their huge, upward-curving tusks. They had arrived on the continent hundreds of thousands of years before their human followers. The woolly mammoth in the North, the Columbian mammoth in middle North America, and the imperial mammoth of the South, together with their distant cousins the mastodons, dominated the land. Here, as in the Old World, there is evidence that humans hunted these elephants, as shown by the numerous spear points found with mammoth **remains**. Then, at the end of the Ice Age, when the last glaciers had retreated, there was a relatively sudden and widespread extinction of elephants. In the New World, both mammoths and mastodons disappeared. In the Old World, only Indian and African elephants survived. Why did the huge, **seemingly** successful mammoths disappear? Were humans connected with their extinction? Perhaps, but at that time, although they were **cunning** hunters, humans were still widely scattered and not very numerous. It is difficult to see how they could have prevailed over the mammoth to such an extent.

**1. With which of the following is the passage primarily concerned'**

- (A) Migration from Siberia to Alaska.
- (B) Techniques used to hunt mammoths.
- (C) The prehistory of humans.
- (D) The relationship between man and mammoth in the New World.**

2. The word "implements" in line 3 is closest in meaning to

- (A) tools (B) ornaments (C) houses (D) carvings

3. The phrase "these early migrants" in line 4 refers to

- (A) mammoths (B) humans (C) dogs (D) mastodons

4. Where were the imperial mammoths the dominant type of mammoth?

- (A) In Alaska.  
(B) In the central portion of North America.  
(C) In the southern part of North America.  
(D) In South America.

5. It can be inferred that when humans crossed into the New World, they

- (A) had previously hunted mammoths in Siberia  
(B) had never seen mammoths before  
(C) brought mammoths with them from the Old World  
(D) soon learned to use dogs to hunt mammoths

6. Which of the following could best substitute for the word "remains" in line 13?

- (A) Bones (B) Drawings (C) Footprints (D) Spear points

7. The word "seemingly" in line 17 is closest in meaning to

- (A) tremendously (B) apparently (C) formerly (D) obviously

8. The passage supports which of the following conclusions about mammoths?

- (A) Humans hunted them to extinction.  
(B) The freezing temperatures of the Ice Age destroyed their food supply.  
(C) The cause of their extinction is not definitely known.  
(D) Competition with mastodons caused them to become extinct.

9. The word "cunning" in line 19 is closest in meaning to

- (A) clever (B) determined (C) efficient (D) cautious

**10. Which of the following is NOT true about prehistoric humans at the time of the mammoths' extinction?**

- (A) They were relatively few in number.
- (B) They knew how to use bows and arrows.
- (C) They were concentrated in a small area.**
- (D) They were skilled hunters.

**11. Which of the following types of elephants does the author discuss in the most detail in the passage?**

- (A) The mastodon
- (B) The mammoth**
- (C) The Indian elephant
- (D) The African elephant

### **Practice Test 160**

To date, Canada has produced only one classic children's tale to rank with *Alice's Adventures in Wonderland* and the works of Mark Twain; **this** was Lucy Maud Montgomery's *Anne of Green Gables*. Lucy Maud Montgomery was born in Clinton, Prince Edward Island. Her mother died soon after her birth, and when her father went to Saskatchewan to assume a business position, she moved in with her grandparents in Cavendish, Prince Edward Island. There she went to school, and later qualified to be a teacher. Montgomery wrote the *Anne* books while living in Cavendish and helping her grandmother at the post office. The first of the books, *Anne of Green Gables*, was published in 1908, and in the next three years she wrote two sequels. Like Montgomery, the heroine of the book is taken in by an **elderly** couple who live in the fictional town of Avonlea, and Montgomery incorporated many events from her life in Cavendish into the *Anne* books. In 1911, Montgomery

married Ewan MacDonald, and the couple soon moved to Ontario, where she wrote many other books. However, it was her first efforts that secured her **prominence**, and the *Anne* books are still read all around the world. Her novels have helped create a warm picture of Prince Edward Island's special **character**. Several movies, a television series, and a musical play have been based on her tales, and today visitors **scour** the island for locations described in the book.

**1. The main purpose of this passage is to**

(A) introduce Montgomery and her *Anne* books.

(B) contrast Canadian children's literature with that of other countries.

(C) provide a brief introduction to Prince Edward Island.

(D) show the similarities between Montgomery's life and that of her fictional character Anne.

**2. The word "this" in line 2 refers to**

(A) Canada.

(B) the work of Mark Twain.

(C) *Alice's Adventures in Wonderland*.

(D) a Canadian children's classic.

**3. According to the passage, Montgomery was raised primarily**

(A) in an orphanage

(B) by her grandparents

(C) by her mother

(D) by her father

**4. Approximately when did Lucy Maud Montgomery write the two sequels to her book *Anne of Green Gables*?**

(A) From 1874 to 1908

(B) From 1908 to 1911

(C) From 1911 to 1913

(D) From 1913 to 1918

**5. The word "elderly" in line 11 is closest in meaning to**

(A) kindly

(B) old

(C) friendly

(D) sly

6. In the *Anne* books, the main character lives in

- (A) the town of Cavendish                      (B) Saskatchewan  
(C) the town of Avonlea                      (D) Ontario

7. Which of the following can be concluded from the passage about the *Anne* books?

- (A) They were at least partially autobiographical.  
(B) They were influenced by the works of Mark Twain.  
(C) They were not as successful as Montgomery's later works.  
(D) They were not popular until after Montgomery had died.

8. The word "prominence" in line 15 is closest in meaning to

- (A) reputation              (B) excellence              (C) effort              (D) permanence

9. Which of the following is closest in meaning to the word "character" in line 17?

- (A) A person in a novel              (B) Nature              (C) A written symbol              (D) Location

10. All of the following have been based on the *Anne* books EXCEPT

- (A) a television series                      (B) movies  
(C) a play                      (D) a ballet

11. In line 18, the word "scour" could be replaced by which of the following without changing the meaning of the sentence?

- (A) Cleanse                      (B) Admire                      (C) Search                      (D) Request

## Practice Test 161

Certain animals have an intuitive awareness of quantities. They know without analysis the difference between a number of objects and a smaller number. In his book *The Natural History of Selbourne* (1786), the naturalist Gilbert White tells how he **surreptitiously** removed one egg a day from a plover's nest, and how the mother laid another egg each day to make up for the missing one. He noted that other species of birds ignore the absence of a single egg but **abandon** their nests if more than one egg has been removed. It has also been noted by naturalists that a certain type of wasp always provides five-never four, never six caterpillars for each of their eggs so that their young have something to eat when the eggs hatch. Research has also shown that both mice and pigeons can be taught to distinguish between **odd** and even numbers of food pieces.

These and similar **accounts** have led some people to infer that creatures other than humans can actually count. They also point to dogs that have been taught to respond to numerical questions with the correct number of barks, or to horses that seem to solve arithmetic problems by stomping their hooves the proper number of times. Animals respond to quantities only when they are connected to survival as a species—as in the case of the eggs—or survival as individuals—as in the case of food. There is no transfer to other situations or from concrete reality to the abstract notion of numbers. Animals can "count" only when the objects are present and only when the numbers involved are small—no more than seven or eight. In lab experiments, animals trained to "count" one kind of object were unable to count any other type. The objects, not the numbers, are what interest them. Animals' **admittedly** remarkable achievements simply do not amount to evidence of counting, nor do **they** reveal more than innate instincts, refined by the genes of successive generations, or the results of clever, careful conditioning by trainers.

**1. What is the main idea of this passage?**

- (A) Careful training is required to teach animals to perform tricks involving numbers.
- (B) Animals cannot "count" more than one kind of object.
- (C) Of all animals, dogs and horses can count best.
- (D) Although some animals may be aware of quantities, they cannot actually count.**

**2. Why does the author refer to Gilbert White's book in line 3?**

- (A) To show how attitudes have changed since 1786
- (B) To contradict the idea that animals can count
- (C) To provide evidence that some birds are aware of quantities**
- (D) To indicate that more research is needed in this field

**3. The word "surreptitiously" in line 4 is closest in meaning to**

- (A) quickly
- (B) secretly**
- (C) occasionally
- (D) stubbornly

**4. The word "abandon" in line 6 is closest in meaning to**

- (A) vacate**
- (B) rebuild
- (C) move
- (D) guard

**5. The word "odd" as used in line 10, refers to which of the following?**

- (A) Unusual numbers
- (B) Numbers such as 1, 3, 5, and so on**
- (C) Lucky numbers
- (D) Numbers such as 2, 4, 6, and so on

**6. The author mentions that all of the following are aware of quantities in some way EXCEPT**

- (A) plovers
- (B) mice
- (C) caterpillars**
- (D) wasps

**7. The word "accounts" in line 12 is closest in meaning to**

- (A) invoices
- (B) reasons
- (C) reports**
- (D) deceptions

**8. According to information in the passage, which of the following is LEAST likely to occur as a result of animals' intuitive awareness of quantities?**

(A) A pigeon is more attracted by a box containing two pieces of food than by a box containing one piece.

**(B) When asked by its trainer how old it is, a monkey holds up five fingers.**

(C) When one of its four kittens crawls away, a mother cat misses it and searches for the missing kitten.

(D) A lion follows one antelope instead of a herd of antelopes because it is easier to hunt a single prey.

**9. How would the author probably characterize the people who are mentioned in line 15?**

**(A) As mistaken**

(B) As demanding

(C) As clever

(D) As foolish

**10. The word "admittedly" in line 22 is closest in meaning to**

(A) improbably

(B) arguably

(C) apparently

**(D) undeniably**

**11. In line 23, the word "they" refers to**

(A) numbers

(B) animals

**(C) achievements**

(D) genes

**12. Where in the passage does the author mention research that supports his own view of animals' inability to count?**

(A) Lines 3-6

(B) Lines 12-14

(C) Lines 15-16

**(D) Lines 27-28**

## Practice Test 162

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

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

Another unusual feature of glass is the manner in which its viscosity changes as **it** turns from a cold substance into a hot, ductile liquid. Unlike metals that flow or

"freeze" at specific temperatures glass progressively softens as the temperature rises, going through varying stages of malleability until it flows like a thick syrup. Each stage of malleability allows the glass to be manipulated into various forms, by different techniques, and if suddenly cooled the object retains the shape achieved at that point. Glass is thus amenable to a greater number of heat-forming techniques than most other materials.

**1. Why does the author list the characteristics of glass in lines 1-5?**

- (A) To demonstrate how glass evolved.
- (B) To show the versatility of glass.**
- (C) To explain glassmaking technology.
- (D) To explain the purpose of each component of glass.

**2. The word " durable " in line 4 is closest in meaning to**

- (A) lasting**
- (B) delicate
- (C) heavy
- (D) Plain

**3. What does the author imply about the raw materials used to make glass?**

- (A) They were the same for centuries.**
- (B) They are liquid
- (C) They are transparent.
- (D) They are very heavy.

**4. According to the passage, how is glass that has cooled and become rigid different from most other rigid substances?**

- (A) It has an interlocking crystal network.
- (B) It has an unusually low melting temperature.
- (C) It has varying physical properties.
- (D) It has a random molecular structure.**

**5. The word " customarily " in line 18 is closest in meaning to ...**

- (A) naturally
- (B) necessarily
- (C) usually**
- (D) certainly

6. The words "exposed to" in line 20 are closest in meaning to

- (A) hardened by      (B) chilled with      (C) subjected to      (D) deprived of

7. What must be done to release the internal stresses that build up in glass products during manufacture?

(A) the glass must be reheated and evenly cooled.

(B) the glass must be cooled quickly.

(C) The glass must be kept moist until cooled.

(D) The glass must be shaped to its desired form immediately

8. The word "induced" in line 21 is closest in meaning to

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

9. The word "it" in line 23 refers to

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

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

(A) It resists breaking when heated

(B) It has better optical properties.

(C) It retains heat while its viscosity changes.

(D) It gradually becomes softer as its temperature rises.

### Practice Test 163

Accustomed though we are to speaking of the films made before 1927 as "silent", the film has never been, in the full sense of the word, silent. From the very beginning, music was regarded as an indispensable accompaniment; when the Lumiere films were shown at the first public film exhibition in the United States in February 1896,

they were accompanied by piano improvisations on popular tunes. At first, the music played bore no special relationship to the films; an accompaniment of any kind was sufficient.

Within a very short time, however, the incongruity of playing lively music to a **solemn** film became apparent, and film pianists began to take some care in matching their pieces to the mood of the film. As movie theaters grew in number and importance, a violinist, and perhaps a cellist, would be added to the pianist in certain cases, and in the larger movie theaters small orchestras were formed. For a number of years the selection of music for each film program rested entirely in the hands of the conductor or leader of the orchestra, and very often the principal qualification for holding such a position was not skill or taste so much as the ownership of a large personal library of musical pieces. Since the conductor seldom saw the films until the night before they were to be shown (if, indeed, the conductor was lucky enough to see **them** then), the musical arrangement was normally improvised in the greatest hurry. To help meet this difficulty, film distributing companies started the practice of publishing suggestions for musical accompaniments. In 1909, for example, the Edison Company began issuing with their films such indications of mood as "pleasant", "sad", "lively". The suggestions became more explicit, and so emerged the musical cue sheet containing indications of mood, the titles of suitable pieces of music, and precise directions to show where one piece led into the next.

Certain films had music especially **composed** for them. The most famous of these early special **scores** was that composed and arranged for D. W. Griffith's film Birth of a Nation, which was released in 1915.

### **1. The passage mainly discusses music that was**

(A) performed before the showing of a film.

**(B) played during silent films.**

- (C) specifically composed for certain movie theaters.
- (D) recorded during film exhibitions.

**2. What can be inferred that the passage about the majority of films made after 1927**

- (A) They were truly "silent".
- (B) They were accompanied by symphonic orchestras.
- (C) They incorporated the sound of the actors' voices.**
- (D) They corresponded to specific musical compositions.

**3. The word "solemn" in line 8 is closest in meaning to**

- (A) simple
- (B) serious**
- (C) short
- (D) silent

**4. It can be inferred that orchestra conductors who worked in movie theaters needed to**

- (A) be able to play many instruments.
- (B) have pleasant voices.
- (C) be familiar with a wide variety of music.**
- (D) be able to compose original music.

**5. The word "them" in line 17 refers to**

- (A) years
- (B) hands
- (C) pieces
- (D) films**

**6. According to the passage, what kind of business was the Edison Company?**

- (A) It produced electricity.
- (B) It distributed films.**
- (C) It published musical arrangements.
- (D) It made musical instruments.

**7. It may be inferred from the passage that the first musical cue sheets appeared around**

- (A) 1896
- (B) 1909**
- (C) 1915
- (D) 1927

8. Which of the following notations is most likely to have been included on a musical cue sheet of the early 1900's?

- (A) "Calm, peaceful"
- (B) "Piano, violin"
- (C) "Key of C major"
- (D) "Directed by D. W. Griffith"

9. The word "composed" in line 24 is closest in meaning to

- (A) selected
- (B) combined
- (C) played
- (D) created

10. The word "scores" in line 25 is closest in meaning to

- (A) totals
- (B) successes
- (C) musical compositions
- (D) groups of musicians

11. The passage probably continues with a discussion of

- (A) famous composers of the early twentieth century.
- (B) other films directed by D. W. Griffith.
- (C) silent films by other directors.
- (D) the music in Birth of a Nation.

### Practice Test 164

A great deal can be learned from the actual traces of ancient human locomotion: the footprints of early hominids. The best-known specimens are the remarkable tracks discovered at Lactoli, Tanzania, by Mary Leaky. These were left by small hominids around 3.6 to 3.75 million years ago, according to potassium – argon dates of the volcanic rocks above and below this level. These hominids walked across a stretch of moist volcanic ash, which was subsequently turned to mud by rain, and

which then set like concrete.

Examination of the shape of the prints revealed to Mary Leakey that the feet had a raised **arch**, a rounded heel, a pronounced ball, and a big toe that pointed forward. These features, together with the weight-bearing pressure patterns, resembled the prints of upright-walking modern humans. The pressures **exerted** along the foot, together with the length of stride, which averaged **87 centimeters**, indicated that the hominids had been walking slowly. In short, all the detectable morphological features implied that the feet that left the footprints were very little different from those of contemporary humans. A detailed study has been made of the prints using **photogrammetry**, a technique for obtaining measurements through photographs, which created a drawing showing all the curves and contours of the prints. The result emphasized that there were at least seven points of similarity with modern bipedal prints, such as the depth of the **heel impression**, and the deep imprint of the big toe. M Day and E. Wickens also took stereophotographs of the Lactoli prints and compared them with modern prints made by men and women in similar soil conditions. Once again, the results furnished possible evidence of bipedalism. Footprints thus provide us not merely with rare impressions of the soft tissue of early hominids, but also with evidence of upright walking that in many ways is clearer than can be obtained from the analysis of bones. The study of fossil footprints is not **restricted** to examples from such remote periods. Hundreds of prints are known, for example, in French caves dating from the end of the last ice age, approximately 10,000 years ago. Research by Leon Pales, using detailed **silicon** resin molds of footprints mostly made by bare feet, has provided information about this period.

**1. What does the passage mainly discuss?**

**(A) The analysis of footprint fossils**

(B) Accurate dating of hominid remains

(C) the career of Mary Leakey

(D) Behavioral patterns of early humans

2. The word "remarkable" in line 2 is closest in meaning to

- (A) extraordinary (B) enormous (C) various (D) orderly

3. The age of the Laetoli footprints was estimated by

(A) testing the fossilized bones of the hominids

(B) studying the shape of the footprints

(C) analyzing nearby rock layers

(D) comparison with footprints from other locations

4. It can be inferred that the footprints in volcanic ash at Laetoli were well preserved because

(A) they were buried by a second volcanic eruption

(B) the ash contained potassium anti argon

(C) the ash was still warm from the volcanic eruptions

(D) suitable conditions caused the ash to harden

5. Which of the following is NOT mentioned as a characteristic of the feet in Mary Leakey's fossil find?

(A) The shape of the heel

(B) The number of toes

(C) A raised arch

(D) A pronounced ball

6. The word "exerted" in line 18 is closest in meaning to

(A) influenced

(B) applied

(C) returned

(D) lessened

7. The figure of 87 centimeters mentioned in line 19 refers to the size of the

(A) objects carried by the hominids

(B) steps taken by the hominids

(C) hominids bodies

(D) hominids feet

8. Why does the author mention the "heel impression" in line 27?

(A) To emphasize the size of the hominids foot

(B) To speculate on a possible injury the hominid had suffered

(C) To give an example of similarity to modern human footprints

(D) To indicate the weight of early hominids

9. The word "restricted" in line 33 is closest in meaning to

(A) limited

(B) improved

(C) continued

(D) succeeded

10. What can be inferred about the footprints found in French caves mentioned in the last paragraph?

(A) They show more detail than the Laetoli prints.

(B) They are of more recent origin than the Laetoli prints.

(C) They are not as informative as the Laetoli prints.

(D) They are more difficult to study than the Laetoli prints

11. Which of the following terms is defined in the passage?

(A) "hominids" (line 4)

(B) "arch" (line 9)

(C) "photogrammetry" (line 23)

(D) "silicon resin molds" (line 36)

### Practice Test 165

Groundwater is the word used to describe water that saturates the ground, filling all the available spaces. By far the most abundant type of groundwater is meteoric water; this is the groundwater that circulates as part of the water cycle. Ordinary meteoric water is water that has soaked into the ground from the surface, from precipitation (rain and snow) and from lakes and streams. There it remains, sometimes for long periods, before emerging at the surface again. At first thought it seems incredible that there can be enough space in the "solid" ground underfoot to hold all this water.

The necessary space is there, however, in many forms. The commonest spaces are those among the particles—sand grains and tiny pebbles of loose, unconsolidated sand and gravel. Beds of this material, **out of sight** beneath the soil, are common. They are found wherever fast rivers carrying loads of coarse sediment once flowed. For example, as the great ice sheets that covered North America during the last ice age steadily melted away, huge volumes of water flowed from them. The water was always laden with pebbles, gravel, and sand, known as **glacial outwash**, that was deposited as the flow slowed down.

The same thing happens to this day, though on a smaller scale, wherever a sediment-laden river or stream emerges from a mountain valley onto relatively flat land, dropping its load as the current slows: the water usually spreads out fanwise, depositing the sediment in the form of a smooth, fan-shaped slope. Sediments are also dropped where a river slows on entering a lake or the sea, the deposited sediments are on a lake floor or the seafloor at first, but will be located inland at some future date, when the sea level falls or the land rises; such beds are sometimes thousands of meters thick. In lowland country almost any spot on the ground may **overlie** what was once the bed of a river that has since become buried by soil; if they are now below the water's upper surface (the water table), the gravels and sands of the former riverbed, and its sandbars, will be saturated with groundwater.

**So much for** unconsolidated sediments. Consolidated (or cemented) sediments, too, contain millions of minute water-holding pores. This is because the gaps among the original grains are often not totally **plugged** with cementing chemicals; also, parts of the original grains may become dissolved by percolating groundwater, either while consolidation is taking place or at any time afterwards. The result is that sandstone, for example, can be as porous as the loose sand from which it was formed.

Thus a proportion of the total volume of any sediment, loose or cemented, consists of empty space. Most crystalline rocks are much more solid; a common exception is basalt, a form of solidified volcanic lava, which is sometimes full of tiny bubbles that make it very porous.

The proportion of empty space in a rock is known as its porosity. But note that porosity is not the same as permeability, which measures the ease with which water can flow through a material; this depends on the sizes of the individual cavities and the crevices linking them. Much of the water in a sample of water-saturated sediment or rock will drain from it if the sample is put in a suitable dry place. But some will remain, clinging to all solid surfaces. It is held there by the force of surface tension without which water would drain instantly from any wet surface, leaving it totally dry. The total volume of water in the saturated sample must therefore be thought of as consisting of water that can, and water that cannot, drain away.

The relative amount of these two kinds of water varies greatly from one kind of rock or sediment to another, even though their porosities may be the same. What happens depends on pore size. If the pores are large, the water in them will exist as drops too heavy for surface tension to hold, and it will drain away; but if the pores are small enough, the water in them will exist as thin films, too light to overcome the force of surface tension holding them in place; then the water will be firmly held. Paragraph 1: Groundwater is the word used to describe water that saturates the ground, filling all the available spaces. By far the most abundant type of groundwater is meteoric water; this is the groundwater that circulates as part of the water cycle. Ordinary meteoric water is water that has soaked into the ground from the surface, from precipitation (rain and snow) and from lakes and streams. There it remains, sometimes for long periods, before emerging at the surface again. At first thought it

seems incredible that there can be enough space in the “solid” ground underfoot to hold all this water.

**1. Which of the following can be inferred from paragraph 1 about the ground that we walk on?**

(A) It cannot hold rainwater for long periods of time.

(B) It prevents most groundwater from circulating.

**(C) It has the capacity to store large amounts of water.**

(D) It absorbs most of the water it contains from rivers.

**2. The word “incredible” in the passage is closest in meaning to**

(A) Confusing

(B) Comforting

**(C) Unbelievable**

(D) Interesting

**3. The word “out of sight” in the passage is closest in meaning to**

(A) Far away

**(B) Hidden**

(C) Partly visible

(D) Discovered

**4. According to paragraph 2, where is groundwater usually found?**

(A) Inside pieces of sand and gravel.

(B) On top of beds of rock.

(C) In fast rivers that are flowing beneath the soil.

**(D) In spaces between pieces of sediment.**

**5. The phrase “glacial outwash” in the passage refers to**

(A) Fast rivers

(B) Glaciers

(C) The huge volumes of water created by glacial melting

**(D) The particles carried in water from melting glaciers.**

6. All of the following are mentioned in paragraph 3 as places that sediment-laden rivers can deposit their sediments EXCEPT

- (A) A mountain valley (B) Flat land (C) A lake floor (D) The seafloor

7. The word "overlie" in the passage is closest in meaning to

- (A) Cover (B) Change (C) Separate (D) Surround

8. The phrase "so much for" in the passage is closest in meaning to

- (A) That is enough about (B) Now let us turn to  
(C) Of greater concern are (D) This is related to

9. The word "plugged" in the passage is closest in meaning to

- (A) Washed (B) Dragged (C) Filled up (D) Soaked through

10. According to paragraphs 6 and 7, why is basalt unlike most crystalline forms of rock?

- (A) It is unusually solid (B) It often has high porosity.  
(C) It has a low proportion of empty space. (D) It is highly permeable.

11. What is the main purpose of paragraph 7?

- (A) To explain why water can flow through rock.  
(B) To emphasize the large amount of empty space in all rock.  
(C) To point out that a rock cannot be both porous and permeable.

(D) To distinguish between two related properties of rock.

12. 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) Surface tension is not strong enough to retain drops of water in rocks with large pores but it strong enough to hold on to thin films of water in rocks with small pores.

(B) Water in rocks is held in place by large pores and drains away from small size pores through surface tension.

(C) Small pores and large pores both interact with surface tension to determine whether a rock will hold water as heavy drops or as a thin film.

(D) If the force of surface tension is too weak to hold water in place as heavy drops, the water will continue to be held firmly in place as a thin film when large pores exist.

### **Practice Test 166**

In seeking to describe the origins of theater, one must rely primarily on speculation, since there is little concrete evidence on which to draw. The most widely accepted theory, **championed** by anthropologists in the late nineteenth and early twentieth centuries, envisions theater as emerging out of myth and ritual. The process perceived by these anthropologists may be summarized briefly. During the early stages of its development, a society becomes aware of forces that appear to influence or control its food supply and well-being. Having little understanding of natural causes, it **attributes** both desirable and undesirable occurrences to supernatural or magical forces, and it searches for means to win the favor of these forces. Perceiving an apparent connection between certain actions performed by the group and the result it desires, the group repeats, refines and formalizes those actions into fixed ceremonies, or rituals.

Stories (myths) may then grow up around a ritual. Frequently the myths include representatives of those supernatural forces that the rites celebrate or hope to influence. Performers may wear costumes and masks to represent the mythical

characters or supernatural forces in the rituals or in accompanying celebrations. As a person becomes more sophisticated, its conceptions of supernatural forces and causal relationships may change. As a result, it may abandon or modify some rites. But the myths that have grown up around the rites may continue as part of the group's oral tradition and may even come to be acted out under conditions divorced from these rites. When **this** occurs, the first step has been taken toward theater as an **autonomous** activity, and thereafter entertainment and aesthetic values may gradually replace the former mystical and socially efficacious concerns.

Although origin in ritual has long been the most popular, it is by no means the only theory about how the theater came into being. Storytelling has been proposed as one alternative. Under this theory, relating and listening to stories are seen as fundamental human pleasures. Thus, the recalling of an event (a hunt, battle, or other feat) is elaborated through the narrator's pantomime and impersonation and eventually through each role being assumed by a different person.

A closely related theory sees theater as evolving out of dances that are primarily pantomimic, rhythmical or gymnastic, or from imitations of animal noises and sounds. Admiration for the performer's skill, virtuosity, and grace are seen as motivation for elaborating the activities into fully realized theatrical performances.

In addition to exploring the possible antecedents of theater, scholars have also theorized about the motives that led people to develop theater. Why did theater develop, and why was it valued after it ceased to fulfill the function of ritual? Most answers fall back on the theories about the human mind and basic human needs. One, set forth by Aristotle in the fourth century B.C., sees humans as naturally imitative—as taking pleasure in imitating persons, things, and actions and in seeing such imitations. Another, advanced in the twentieth century, suggests that humans

have a gift for fantasy, through which they seek to reshape reality into more satisfying forms than those encountered in daily life. Thus, fantasy or fiction (of which drama is one form) permits people to objectify their anxieties and fears, confront them, and fulfill their hopes in fiction if not fact. The theater, then, is one tool whereby people define and understand their world or escape from unpleasant realities.

But neither the human imitative instinct nor a **penchant** for fantasy by itself leads to an autonomous theater. Therefore, additional explanations are needed. One necessary condition seems to be a somewhat detached view of human problems. For example, one sign of this condition is the appearance of the comic vision, since **comedy** requires sufficient detachment to view some deviations from social norms as ridiculous rather than as serious threats to the welfare of the entire group. Another condition that contributes to the development of autonomous theater is the emergence of the aesthetic sense. For example, some early societies ceased to consider certain rites essential to their well-being and abandoned them, nevertheless, they retained as parts of their oral tradition the myths that had grown up around the rites and admired them for their artistic qualities rather than for their religious usefulness.

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

- (A) changed      (B) debated      (C) created      (D) supported

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

- (A) ascribes      (B) leaves      (C) limits      (D) contrasts

**3. According to paragraph 1, theories of the origins of theater**

**(A) are mainly hypothetical.**

(B) are well supported by factual evidence.

(C) have rarely been agreed upon by anthropologists.

(A) were expressed in the early stages of theater's development.

**4. According to paragraph 1, why did some societies develop and repeat ceremonial actions?**

(A) To establish a positive connection between the members of the society.

(B) To help society members better understand the forces controlling their food supply.

(C) To distinguish their beliefs from those of other societies.

**(D) To increase the society's prosperity.**

**5. The word "this" in the passage refers to**

(A) the acting out of rites

(B) the divorce of ritual performers from the rest of society

**(C) the separation of myths from rites**

(D) the celebration of supernatural forces

6. The word “autonomous” in the passage is closest in meaning to

- (A) artistic      (B) important      (C) independent      (D) established

7. According to paragraph 2, what may cause societies to abandon certain rites?

(A) Emphasizing theater as entertainment.

(B) Developing a new understanding of why events occur.

(C) Finding a more sophisticated way of representing mythical characters.

(D) Moving from a primarily oral tradition to a more written tradition.

8. All of following are mentioned in paragraph 5 as possible reasons that led societies to develop theater EXCEPT:

(A) Theater allows people to face that they are afraid of.

(B) Theater gives an opportunity to imagine a better reality.

(C) Theater is a way to enjoy imitating other people.

(D) Theater provides people the opportunity to better understand the human mind.

9. Which of the following best describes the organization of paragraph 5?

(A) The author presents two theories for a historical phenomenon.

(B) The author argues against theories expressed earlier in the passage.

(C) The author argues for replacing older theories with a new one.

(D) The author points out problems with two popular theories.

**10. The word “penchant” in the passage is closest in meaning to**

(A) compromise      (B) inclination      (C) tradition      (D) respect

**11. Why does the author mention “comedy”?**

(A) To give an example of early types of theater

(B) To explain how theater helps a society respond to threats to its welfare

(C) To help explain why detachment is needed for the development of theater

(D) To show how theatrical performers become detached from other members of society

**12. 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) A society’s rites were more likely to be retained in the oral tradition if its myths were admired for artistic qualities.

(B) The artistic quality of a myth was sometimes an essential reason for a society to abandon it from the oral tradition.

(C) Some early societies stopped using myths in their religious practices when rites ceased to be seen as useful for social well-being.

(D) Myths sometimes survived in a society’s tradition because of their artistic qualities even after they were no longer deemed religiously beneficial.

## Practice Test 167

The transition from forest to treeless tundra on a mountain slope is often a **dramatic** one. Within a vertical distance of just a few tens of meters, trees disappear as a life-form and are replaced by low shrubs, herbs, and grasses. This rapid zone of transition is called the upper timberline or tree line. In many semiarid areas there is also a lower timberline where the forest passes into steppe or desert at its lower edge, usually because of a lack of moisture.

The upper timberline, like the snow line, is highest in the tropics and lowest in the Polar Regions. It ranges from sea level in the Polar Regions to 4,500 meters in the dry subtropics and 3,500-4,500 meters in the moist tropics. Timberline trees are normally evergreens, suggesting that these have some advantage over deciduous trees (those that lose their leaves) in the extreme environments of the upper timberline. There are some areas, however, where broadleaf deciduous trees form the timberline. Species of birch, for example, may occur at the timberline in parts of the Himalayas.

At the upper timberline the trees begin to become twisted and deformed. This is particularly true for trees in the middle and upper latitudes, which tend to **attain** greater heights on ridges, whereas in the tropics the trees reach their greater heights in the valleys. This is because middle- and upper- latitude timberlines are strongly influenced by the duration and depth of the snow cover. As the snow is deeper and lasts longer in the valleys, trees tend to attain greater heights on the ridges, even though **they** are more exposed to high-velocity winds and poor, thin soils there. In the tropics, the valleys appear to be more favorable because they are less **prone** to dry out, they have less frost, and they have deeper soils.

There is still no universally agreed-on explanation for why there should be such a dramatic cessation of tree growth at the upper timberline. Various environmental factors may play a role. Too much snow, for example, can smother trees, and avalanches and snow creep can damage or destroy them. Late-lying snow reduces the effective growing season to the point where seedlings cannot establish themselves. Wind velocity also increases with altitude and may cause serious stress for trees, as is made evident by the deformed shapes at high altitudes. Some scientists have proposed that the presence of increasing levels of ultraviolet light with elevation may play a role, while browsing and grazing animals like the ibex may be another contributing factor. Probably the most important environmental factor is temperature, for if the growing season is too short and temperatures are too low, tree shoots and buds cannot mature sufficiently to survive the winter months.

Above the tree line there is a zone that is generally called alpine tundra. Immediately adjacent to the timberline, the tundra consists of a fairly complete cover of low-lying shrubs, herbs, and grasses, while higher up the number and diversity of species decrease until there is much bare ground with occasional mosses and lichens and some prostrate cushion plants. Some plants can even survive in favorable microhabitats above the snow line. The highest plants in the world occur at around 6,100 meters on Makalu in the Himalayas. At this great height, rocks, warmed by the sun, melt small snowdrifts.

The most striking characteristic of the plants of the alpine zone is their low growth form. This enables them to avoid the worst rigors of high winds and permits them to make use of the higher temperatures immediately adjacent to the ground surface. In an area where low temperatures are limiting to life, the importance of the additional heat near the surface is crucial. The low growth form can also permit the plants to

take advantage of the insulation provided by a winter snow cover. In the equatorial mountains the low growth form is less prevalent.

1. The word “dramatic” in the passage is closest in meaning to

- (A) gradual                      (B) complex                      (C) visible                      **(D) striking**

2. Where is the lower timberline mentioned in paragraph 1 likely to be found?

- (A) In an area that has little water.**                      (B) In an area that has little sunlight.  
(C) Above a transition area.                      (D) On a mountain that has on upper timberline.

3. Which of the following can be inferred from paragraph 1 about both the upper and lower timberlines?

- (A) Both are treeless zones.                      **(B) Both mark forest boundaries.**  
(C) Both are surrounded by desert areas.                      (D) Both suffer from a lack of moisture.

4. Paragraph 2 supports which of the following statements about deciduous trees?

- (A) They cannot grow in cold climates.  
(B) They do not exist at the upper timberline.  
**(C) They are less likely than evergreens to survive at the upper timberline.**  
(D) They do not require as much moisture as evergreens do.

5. The word “attain” in the passage is closest in meaning to

- (A) require            (B) resist            (C) achieve            (D) endure

6. The word “they” in the passage refers to

- (A) valleys            (B) trees            (C) heights            (D) ridges

7. The word “prone” in the passage is closest in meaning to

- (A) adapted            (B) likely            (C) difficult            (D) resistant

8. According to paragraph 3, which of the following is true of trees in the middle and upper latitudes?

(A) Tree growth is negatively affected by the snow cover in valleys.

(B) Tree growth is greater in valleys than on ridges.

(C) Tree growth on ridges is not affected by high-velocity winds.

(D) Tree growth lasts longer in those latitudes than it does in the tropics.

9. Which of the sentences below best express the essential information in the highlighted sentence in the passage? In correct choices change the meaning in important ways or leave out essential information.

(A) Because of their deformed shapes at high altitudes, trees are not likely to be seriously harmed by the strong winds typical of those altitudes.

(B) As altitude increases, the velocity of winds increase, leading to a serious decrease in the number of trees found at high altitudes.

(C) The deformed shapes of trees at high altitudes show that wind velocity, which increase with altitude, can cause serious hardship for trees.

(D) Increased wind velocity at high altitudes deforms the shapes of trees, and this may cause serious stress for trees.

**10. In paragraph 4, what is the author's main purpose in the discussion of the dramatic cessation of tree growth at the upper timberline?**

(A) To argue that none of several environment factors that are believed to contribute to that phenomenon do in fact play a role in causing it.

(B) To argue in support of one particular explanation of that phenomenon against several competing explanations.

(C) To explain why the primary environmental factor responsible for that phenomenon has not yet been identified.

(D) To present several environmental factors that may contribute to a satisfactory explanation of that phenomenon.

**11. The word "prevalent" in the passage is closest in meaning to**

(A) predictable      (B) widespread      (C) successful      (D) developed

**12. According to paragraph 6, all of the following statements are true of plants in the alpine zone EXCEPT:**

(A) Because they are low, they are less exposed to strong winds.

(B) Because they are low, the winter snow cover gives them more protection from the extreme cold.

**(C) In the equatorial mountains, they tend to be lower than in mountains elsewhere.**

(D) Their low growth form keeps them closer to the ground, where there is more heat than further up.

### **Practice Test 168**

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. Even development in architecture has been the result of major technological changes.

Materials and methods of construction are **integral** parts of the design of architecture structures. In earlier times it was necessary to design structural systems suitable for the materials that were available, such as wood, stone, 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 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, 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.

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.

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

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

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

- (A) In existence (B) Without question  
(C) Achievable (D) Most likely

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.

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

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

- (A) Combined (B) Created (C) Introduced (D) Suggested

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

- (A) Essential (B) Variable (C) Practical (D) Independent

**6. 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.

**7. 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 building 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.

**8. Which of the following correctly characterizes the relationship between the human body and architecture that is described in paragraph 5?**

(A) Complex equipment inside buildings is the one element in modern architecture that resembles a component of the human body.

(B) The components in early buildings were similar to three particular elements of the human body.

(C) Modern buildings have components that are as likely to change as the human body is.

(D) In general, modern buildings more closely resemble the human body than earlier buildings do.

9. The word "arduous" in the passage is closest in meaning to

(A) Difficult

(B) Necessary

(C) Skilled

(D) Shared

10. 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.

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

- (A) protect      (B) improve      (C) organize      (D) match

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

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

### **Practice Test 169**

The technology of the North American colonies did not differ strikingly from that of Europe, but in one respect, the colonists enjoyed a great advantage. Especially by comparison with Britain, Americans had a wonderfully plentiful supply of wood. The first colonists did not, as many people imagine, find an entire continent covered by a climax forest. Even along the Atlantic seaboard, the forest was broken at many points. Nevertheless, all sorts of fine trees abounded, and through the early colonial period, those who pushed westward encountered new forests. By the end of the colonial era, the price of wood had risen slightly in eastern cities, but wood was still extremely abundant.

The availability of wood brought advantages that have seldom been appreciated. Wood was a foundation of the economy. Houses and all manner of buildings were made of wood to a degree unknown in Britain. Secondly, wood was used as fuel for

heating and cooking. Thirdly, it was used as the source of important industrial compounds, such as potash, an industrial alkali; charcoal, a component of **gunpowder**; and tannic acid, used for tanning leather.

The supply of wood **conferred** advantages but had some negative aspects as well. Iron at that time was produced by heating iron ore with charcoal. Because Britain was so stripped of trees, she was unable to exploit her rich iron mines. But the American colonies had both iron ore and wood; iron production was encouraged and became successful. However, when Britain developed coke smelting, the Colonies did not **follow suit** because they had plenty of wood and besides, charcoal iron was stronger than coke iron. Coke smelting led to technologic innovations and was linked to the emergence of the Industrial Revolution. In the early nineteenth century, the former colonies lagged behind Britain in industrial development because their supply of wood led them to **cling to** charcoal iron.

**1. What does the passage mainly discuss?**

- (A) The advantages of using wood in the colonies.
- (B) The effects of an abundance of wood on the colonies.**
- (C) The roots of the Industrial Revolution.
- (D) The difference between charcoal iron and coke iron.

**2. The word "strikingly" in line 1 is closest in meaning to**

- (A) realistically
- (B) dramatically**
- (C) completely
- (D) immediately

**3. Which of the following is a common assumption about the forests of North America during the colonial period?**

- (A) They contained only a few types of trees.
- (B) They existed only along the Atlantic seaboard.
- (C) They had little or no economic value.
- (D) They covered the entire continent.**

**4. The use of the word "abounded" in line 6 indicates that the trees were**

- (A) present in large numbers**
- (B) restricted to certain areas
- (C) cut down
- (D) cultivated

**5. According to the passage, by the end of the colonial period, the price of wood in eastern cities**

- (A) rose quickly because wood was becoming so scarce.
- (B) was much higher than it was in Britain.
- (C) was slightly higher than in previous years.**
- (D) decreased rapidly because of lower demand for wood.

**6. What can be inferred about houses in Britain during the period written about in the passage?**

- (A) They were more expensive than American houses.

- (B) They were generally built with imported materials.
- (C) They were typically smaller than homes in North America.
- (D) They were usually built from materials other than wood.**

**7. Why does the author mention gunpowder in line 15?**

- (A) To illustrate the negative aspects of some industrial processes.
- (B) To give an example of a product made with wood.**
- (C) To remind readers that the Colonial era ended in warfare.
- (D) To suggest that wood was not the only important product of the Colonies.

**8. The word "conferred" in line 16 is closest in meaning to**

- (A) consulted (B) gathered
- (C) provided** (D) restricted

**9. The phrase "follow suit" in line 21 means**

- (A) do the same thing** (B) make an attempt
- (C) have the opportunity (D) take a risk

**10. According to the passage, why was the use of coke smelting advantageous?**

- (A) It led to advances in technology.**
- (B) It was less expensive than wood smelting.

(C) It produced a stronger type of iron than wood smelting.

(D) It stimulated the demand for wood.

**11. The phrase "cling to" in line 25 is closest in meaning to**

(A) try to develop

(B) avoid

**(C) continue to use**

(D) reconsider

**12. Where in the passage does the author begin to discuss in detail the disadvantages that an abundant supply of wood brought to the colonies?**

(A) Lines 1-3

(B) Lines 5-7

(C) Lines 13-14

**(D) Lines 21-22**

### **Practice Test 170**

It is said that George Washington was one of the first to realize how important the building of canals would be to the nation's development. In fact, before he became the President, he headed the first company in the United States to build a canal, which was to connect the Ohio and Potomac rivers. It was never completed, but it showed the nation the **feasibility** of canals. As the country expanded westward, settlers in western New York, Pennsylvania, and Ohio needed a means to ship goods. Canals linking natural waterways seemed to supply an effective method. In 1791, engineers commissioned by the state of New York investigated the possibility of a canal between Albany on the Hudson River and Buffalo on Lake Erie to link the Great Lakes area with the Atlantic seacoast. It would avoid the mountains that served as a barrier to canals from the Delaware and Potomac rivers. The first attempt to dig the canal, to be called the Erie Canal, was made by private companies but only a

**comparatively** small portion was built before the project was halted for lack of funds. The cost of the prospect was estimated \$5 million, an enormous amount for those days. There was some **on-again-off-again** federal funding, but this time the War of 1812 put an end to construction. In 1817, DeWitt Clinton was elected Governor of New York and persuaded the state to finance and build the canal. It was completed in 1825, costing \$2 million more than expected. The canal rapidly lived up to its sponsors' faith, quickly paying for itself through **tolls**. It was far more economical than any other form of transportation at the time. It permitted trade between the Great Lake region and the East coast, robbing the Mississippi River of much of its traffic. It allowed New York to supplant Boston, Philadelphia, and other eastern cities as the chief center of both domestic and foreign commerce. Cities sprang up along the canal. It also contributed in a number of ways to the North's victory over the South in the Civil War. An expansion of the canal was planned in 1849. Increased traffic would undoubtedly have **warranted** its construction had it not been for the railroads.

**1. Why does the author most likely mention George Washington in the first paragraph?**

- (A) He was President at the time the Erie Canal was built.
- (B) He was involved in pioneering efforts to build canals.**
- (C) He successfully opened the first canal in the United States.
- (D) He commissioned engineers to study the possibility of building the Erie Canal.

**2. The word "feasibility" in line 5 is closest in meaning to**

- (A) profitability
- (B) difficulty
- (C) possibility**
- (D) capability

3. According to the passage, the Erie Canal connected the

- (A) Potomac and Ohio rivers      (B) Hudson River and Lake Erie  
(C) Delaware and Potomac rivers      (D) Atlantic Ocean and the Hudson River

4. Which of the following is closest in meaning to the word "comparatively" in line 13?

- (A) Relatively      (B) Contrarily      (C) Incredibly      (D) Considerably

5. The phrase "on-again-off-again" in line 15 could be replaced by which of the following with the least change in meaning?

- (A) Intermittent      (B) Unsolicited      (C) Ineffectual      (D) Gradual

6. The completion of the Erie Canal was financed by

- (A) the state of New York      (B) private companies  
(C) the federal government      (D) DeWitt Clinton

7. The actual cost of building the Erie Canal was

- (A) five million dollars      (B) less than had been estimated  
(C) seven million dollars      (D) more than could be repaid

8. The word "tolls" in line 20 is closest in meaning to which of the following?

- (A) Jobs      (B) Grants  
(C) Links      (D) Fees

**9. Which of the following is NOT given in the fourth paragraph as an effect of the building of the Erie Canal?**

(A) It allowed the East Coast to trade with the Great Lakes area.

(B) It took water traffic away from the Mississippi River.

(C) It helped determine the outcome of the Civil War.

**(D) It established Boston and Philadelphia as the most important centers of trade.**

**10. What can be inferred about railroads in 1849 from the information in the last paragraph?**

(A) They were being planned but had not yet been built.

(B) They were seriously underdeveloped.

**(C) They had begun to compete with the Erie Canal for traffic.**

(D) They were weakened by the expansion of the canal.

**11. The word "warranted" in line 26 is closest in meaning to**

(A) guaranteed

**(B) justified**

(C) hastened

(D) prevented

**12. At what point in the passage does the author focus on the beginning of construction of the Erie Canal?**

(A) Lines 3-5

(B) Lines 10-13

**(C) Lines 16-18**

(D) Lines 25-26

## Practice Test 171

Just before and during World War I, a number of white musicians came to Chicago from New Orleans playing in an **idiom** they had learned from blacks in that city. Five of them formed what eventually became known as the Original Dixieland Band. They moved to New York in 1917 and won fame there. That year they recorded the first phonograph record identified as jazz. The first important recording by black musicians was made in Chicago in 1923 by King Oliver's Creole Jazz Band, a group that featured some of the foremost jazz musicians of the time, including trumpet player Louis Armstrong. Armstrong's dynamic trumpet style became famous worldwide. Other band members had played in Fate Marable's band, which traveled up and down the Mississippi River entertaining passengers on riverboats. The characteristics of this early type of jazz, known as Dixieland jazz, included a complex interweaving of melodic lines among the coronet or trumpet, clarinet, and trombone, and a **steady** chomp-chomp beat provided by the rhythm section, which included the piano, bass, and drums. Most bands used no written notations, preferring arrangements agreed on verbally. Improvisation was an indispensable element. Even bandleaders such as Duke Ellington, who provided his musicians with written arrangements, permitted them plenty of freedom to improvise when playing solos. In the late 1920s, the most influential jazz artists in Chicago were members of small bands such as the Wolverines. In New York, the trend was toward larger groups. These groups played in revues, large dance halls, and theaters. Bands would become larger still during the next age of jazz, the Swing era.

1. What is the main topic of the passage?

(A) The early history of jazz.

(B) The music of World War I.

(C) The relationship of melody and rhythm in jazz.

(D) The New York recording industry in the 1920s.

2. The word "idiom" in paragraph 1 is closest in meaning to \_\_\_\_ .

(A) slang

(B) tempo

(C) tune

(D) Style.

3. The musicians who made the earliest jazz recordings were originally from \_\_\_\_ .

(A) New Orleans

(B) Chicago

(C) New York

(D) Mississippi

4. When was the first important recording by black jazz musicians made?

(A) 1917

(B) 1923

(C) the late 1920s

(D) the early 1930s

5. According to the passage, Louis Armstrong was a member of which of the following?

(A) The Original Dixie Band

(B) Fate Marable's riverboat band

(C) King Oliver's Creole Jazz Band

(D) The Wolverines 187

6. The word "steady" in paragraph 3 is closest in meaning to \_\_\_\_ .

(A) constant

(B) basic

(C) urgent

(D) happy

**7. According to the passage, which of the following instruments helped provide the beat for Dixieland jazz?**

- (A) the coronet    **(B) the piano**    (C) the trombone    (D) the clarinet

**8. Duke Ellington is given as an example of a bandleader who \_\_\_\_\_**

- (A) could not read music    (B) did not value improvisation  
(C) discouraged solo performances    **(D) used written arrangements**

**9. Which of the following phrases would be LEAST likely to be applied to Dixieland jazz?**

- (A) relatively complex    (B) highly improvisational  
(C) rhythmic and melodic    **(D) rigidly planned**

**10. According to the passage, who were the Wolverines?**

- (A) a band that played in large dance halls  
(B) a New York group  
(C) a Swing band  
**(D) a small group**

**11. The author provides the most detailed description of early jazz music in the**

- (A) first paragraph    (B) second paragraph  
**(C) third paragraph**    (D) fourth paragraph

**12. The paragraph following this one most likely deals with**

(A) the music of small bands.

**(B) the Swing era.**

(C) music that influenced Dixieland Jazz.

(D) other forms of music popular in the 1920's.

**Practice Test 172**

It would be hard to cite a development that has had more impact on American industry than the Bessemer process of making steel. It made possible the production of low-cost steel and established the foundation of the modern steel industry. In many ways it was responsible for the rapid industrialization of the United States that took place in the formative period of the late 1800's.

The first Bessemer plant in the United States was built in Wyandotte, Michigan, in 1864, near the end of the Civil War. It was capable of producing only 2 tons of steel ingots at a time. The ingots were rolled into rails-the first steel rails made in the United States. Acceptance of the process was initially slow. By 1870, the annual output of Bessemer steel was a mere 42 thousand tons. Production grew rapidly after about 1875, rising to 1.2 million tons in 1880, when it exceeded that of wrought iron for the first time. The rise of the US. steel industry in the last quarter of the 19th century was brought about largely by the demand for Bessemer steel rails for the nation's **burgeoning** rail network. Steel rails were far more durable than those made of iron. **Spurred** by this demand, the us. steel industry became the largest in the world in 1886, when it surpassed that of Great Britain. The Bessemer Process was the chief method of making steel until 1907, when it was overtaken by the open-

hearth process. By the 1950's, the Bessemer Process accounted for less than 3% of the total U.S. production.

**1. With what topic is this passage mainly concerned?**

- (A) The history of metal-working
- (B) comparison of the US. and British steel industries in the nineteenth century.
- (C) The technical details of the Bessemer process.
- (D) The effects of one method of making steel.**

**2. According to the passage, the Bessemer process contributed to all of the following EXCEPT**

- (A) the establishment of the modern steel industry in the United States.
- (B) the manufacture of weapons during the Civil War.**
- (C) lowered costs for steel.
- (D) industrial development in the United States during an important period.

**3. What can be inferred from the passage about wrought iron?**

- (A) At one time, more of it was produced than Bessemer steel.**
- (B) It is a by-product of the Bessemer process.
- (C) It was once primarily imported from Great Britain.
- (D) It later became a more important product than Bessemer steel.

**4. The word “burgeoning” in line 11 is closest in meaning to**

- (A) overpowering
- (B) planned
- (C) expanding**
- (D) vital

**5. According to the passage, why were Bessemer steel rails used in place of iron rails?**

**(A) They lasted longer.**

(B) They did not have to be imported.

(C) They could be installed faster.

(D) They provided a smoother ride for passengers.

**6. The word “Spurred” in line 12 is closest in meaning to which of the following?**

**(A) Driven**

(B) Challenged

(C) Dominated

(D) Broken

**7. According to the passage, in what year did the steel industry of the United States begin to produce more steel than that of Great Britain did?**

(A) 1864

(B) 1875

(C) 1880

**(D) 1886**

**8. What can be inferred about the steel industry in the United States during the 1950's?**

(A) It had begun producing many new types of products.

(B) It was in a period of severe decline.

**(C) It primarily involved methods of production other than the Bessemer Process.**

(D) It was becoming more and more important.

**9. The paragraph following this one probably concerns**

(A) innovations in the railroad industry.

**(B) the open-hearth method of making steel.**

(C) industrialization in the twentieth century.

(D) new methods of making wrought iron.

**10. The author first begins to discuss the growth of the Bessemer Process in**

(A) lines 2-4

(B) lines 6-8

**(C) lines 9-12**

(D) lines 14-16

**Practice Test 173**

It should be obvious that cetaceans-whales, porpoises, and dolphins-are mammals. They breathe through lungs, not through gills, and give birth to live young. Their streamlined bodies, the absence of hind legs, and the presence of a fluke<sup>1</sup> and blowhole<sup>2</sup> cannot disguise their affinities with land dwelling mammals. However, unlike the cases of sea otters and pinnipeds (seals, sea lions, and walruses, whose limbs are functional both on land and at sea), it is not easy to envision what the first whales looked like. Extinct but already fully marine cetaceans are known from the fossil record. How was the gap between a walking mammal and a swimming whale bridged? Missing until recently were fossils clearly intermediate, or transitional, between land mammals and cetaceans. Very exciting discoveries have finally allowed scientists to reconstruct the most likely origins of cetaceans. In 1979, a team looking for fossils in northern Pakistan found what proved to be the oldest fossil whale. The fossil was officially named Pakicetus in honor of the country where the discovery was made. Pakicetus was found embedded in rocks formed from river deposits that were 52 million years old. The river that formed these deposits was actually not far from an ancient ocean known as the Tethys Sea. The fossil consists of a complete skull of an archaeocyte, an extinct group of ancestors of modern cetaceans. Although limited to a skull, the Pakicetus fossil provides **precious** details on the origins of cetaceans. The skull is cetacean-like but its jawbones lack the

enlarged space that is filled with fat or oil and used for receiving underwater sound in modern whales. Pakicetus probably detected sound through the ear opening as in land mammals. The skull also lacks a blowhole, another cetacean adaptation for diving. Other features, however, show experts that Pakicetus is a transitional form between a group of extinct flesh-eating mammals, the mesonychids, and cetaceans. It has been suggested that Pakicetus fed on fish in shallow water and was not yet adapted for life in the open ocean. It probably bred and gave birth on land.

Another major discovery was made in Egypt in 1989. Several skeletons of another early whale, Basilosaurus, were found in sediments left by the Tethys Sea and now **exposed** in the Sahara desert. This whale lived around 40 million years ago, 12 million years after Pakicetus. Many incomplete skeletons were found but they included, for the first time in an archaeocyte, a complete hind leg that features a foot with three tiny toes. Such legs would have been far too small to have supported the 50-foot-long Basilosaurus on land. Basilosaurus was undoubtedly a fully marine whale with possibly nonfunctional, or vestigial, hind legs.

An even more exciting find was reported in 1994, also from Pakistan. The now extinct whale Ambulocetus natans (“the walking whale that swam”) lived in the Tethys Sea 49 million years ago. It lived around 3 million years after Pakicetus but 9 million before Basilosaurus. The fossil luckily includes a good portion of the hind legs. The legs were strong and ended in long feet very much like those of a modern pinniped. The legs were certainly functional both on land and at sea. The whale retained a tail and lacked a fluke, the major means of locomotion in modern cetaceans. The structure of the backbone shows, however, that Ambulocetus swam like modern whales by moving the rear portion of its body up and down, even though a fluke was missing. The large hind legs were used for **propulsion** in water. On land, where it probably bred and gave birth, Ambulocetus may have moved around very

much like a modern sea lion. It was undoubtedly a whale that linked life on land with life at sea.

**1. In paragraph 1, what does the author say about the presence of a blowhole in cetaceans?**

- (A) It clearly indicates that cetaceans are mammals.
- (B) It cannot conceal the fact that cetaceans are mammals.**
- (C) It is the main difference between cetaceans and land-dwelling mammals.
- (D) It cannot yield clues about the origins of cetaceans.

**2. Which of the following can be inferred from paragraph 1 about early sea otters?**

- (A) It is not difficult to imagine what they looked like**
- (B) There were great numbers of them.
- (C) They lived in the sea only.
- (D) They did not leave many fossil remains.

**3. The word precious in the passage is closest in meaning to**

- (A) Exact
- (B) Scarce
- (C) Valuable**
- (D) Initial

**4. Pakicetus and modern cetaceans have similar**

- (A) Hearing structures
- (B) Adaptations for diving
- (C) Skull shapes**
- (D) Breeding locations

**5. The word it in the passage refers to**

- (A) Pakicetus**
- (B) Fish
- (C) Life
- (D) Ocean

6. The word **exposed** in the passage is closest in meaning to

- (A) Explained      (B) Visible      (C) Identified      (D) Located

7. The hind leg of **Basilosaurus** was a significant find because it showed that **Basilosaurus**?

- (A) Lived later than *Ambulocetus natans*.  
(B) Lived at the same time as *Pakicetus*.  
(C) Was able to swim well.  
(D) Could not have walked on land.

8. It can be inferred that **Basilosaurus** bred and gave birth in which of the following locations?

- (A) On land      (B) Both on land and at sea  
(C) In shallow water      (D) In a marine environment

9. Why does the author use the word **luckily** in mentioning that the ***Ambulocetus natans* fossil included hind legs**?

- (A) Fossil legs of early whales are a rare find.  
(B) The legs provided important information about the evolution of cetaceans.  
(C) The discovery allowed scientists to reconstruct a complete skeleton of the whale.  
(D) Until that time, only the front legs of early whales had been discovered.

10. 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) Even though *Ambulocetus* swam by moving its body up and down, it did not have a backbone.  
(B) The backbone of *Ambulocetus*, which allowed it to swim, provides evidence of

its missing fluke.

(C) Although Ambulocetus had no fluke, its backbone structure shows that it swam like modern whales.

(D) By moving the rear parts of their bodies up and down, modern whales swim in a different way from the way Ambulocetus swam.

**11. The word propulsion in the passage is closest in meaning to?**

(A) Staying afloat

(B) Changing direction

(C) Decreasing weight

(D) Moving forward

### **Practice Test 174**

The cinema did not emerge as a form of mass consumption until its technology evolved from the initial "peepshow" format to the point where images were projected on a screen in a darkened theater. In the peepshow format, a film was viewed through a small opening in a machine that was created for that purpose. Thomas Edison's peepshow device, the Kinetoscope, was introduced to the public in 1894. It was designed for use in Kinetoscope parlors, or arcades, which contained only a few individual machines and permitted only one customer to view a short, 50-foot film at any one time. The first Kinetoscope parlors contained five machines. For the price of 25 cents (or 5 cents per machine), customers moved from machine to machine to watch five different films (or, in the case of famous prizefights, successive rounds of a single fight).

These Kinetoscope arcades were modeled on phonograph parlors, which had proven successful for Edison several years earlier. In the phonograph parlors, customers listened to recordings through individual ear tubes, moving from one machine to the

next to hear different recorded speeches or pieces of music. The Kinetoscope parlors functioned in a similar way. Edison was more interested in the sale of Kinetoscopes (for roughly \$1,000 apiece) to these parlors than in the films that would be run in them (which cost approximately \$10 to \$15 each). He refused to develop projection technology, reasoning that if he made and sold projectors, then exhibitors would purchase only one machine—a projector—from him instead of several.

Exhibitors, however, wanted to maximize their profits, which they could do more **readily** by projecting a handful of films to hundreds of customers at a time (rather than one at a time) and by charging 25 to 50 cents admission. About a year after the opening of the first Kinetoscope parlor in 1894, showmen such as Louis and Auguste Lumiere, Thomas Armat and Charles Francis Jenkins, and Orville and Woodville Latham (with the **assistance** of Edison's former assistant, William Dickson) perfected projection devices. These early projection devices were used in vaudeville theaters, legitimate theaters, local town halls, makeshift storefront theaters, fairgrounds, and amusement parks to show films to a mass audience.

With the advent of projection in 1895-1896, motion pictures became the ultimate form of mass consumption. Previously, large audiences had viewed spectacles at the theater, where vaudeville, popular dramas, musical and minstrel shows, classical plays, lectures, and slide-and-lantern shows had been presented to several hundred spectators at a time. But the movies differed significantly from these other forms of entertainment, which depended on either live performance or (in the case of the slide-and-lantern shows) the active involvement of a master of ceremonies who assembled the final program. Although early exhibitors regularly accompanied movies with live acts, the substance of the movies themselves is mass-produced, prerecorded material that can easily be reproduced by theaters with little or no active participation by the exhibitor. Even though early exhibitors shaped their film

programs by mixing films and other entertainments together in whichever way they thought would be most attractive to audiences or by accompanying them with lectures, their creative control remained limited. What audiences came to see was the technological marvel of the movies: the lifelike reproduction of the commonplace motion of trains, of waves striking the shore, and of people walking in the street, and the magic made possible by trick photography and the manipulation of the camera. With the advent of projection, the viewer's relationship with the image was no longer private, as it had been with earlier peepshow devices such as the Kinetoscope and the Mutoscope, which was a similar machine that reproduced motion by means of successive images on individual photographic cards instead of on strips of celluloid. **It** suddenly became public-an experience that the viewer shared with dozens, scores, and even hundreds of others. At the same time, the image that the spectator looked at **expanded** from the minuscule peepshow dimensions of 1 or 2 inches (in height) to the life-size proportions of 6 or 9 feet.

**1. According to paragraph 1, all of the following were true of viewing films in Kinetoscope parlors EXCEPT:**

- (A) One individual at a time viewed a film.
- (B) Customers could view one film after another.
- (C) Prizefights were the most popular subjects for films.**
- (D) Each film was short.

**2. The author discusses phonograph parlors in paragraph 2 in order to**

- (A) explain Edison's financial success.

(B) describe the model used to design Kinetoscope parlors.

(C) contrast their popularity to that of Kinetoscope parlors.

(D) illustrate how much more technologically advanced Kinetoscope parlors were.

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

(A) Edison was more interested in developing a variety of machines than in developing a technology based on only one.

(B) Edison refused to work on projection technology because he did not think exhibitors would replace their projectors with newer machines.

(C) Edison did not want to develop projection technology because it limited the number of machines he could sell.

(D) Edison would not develop projection technology unless exhibitors agreed to purchase more than one projector from him.

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

(A) frequently      (B) easily      (C) intelligently      (D) obviously

**5. The word "assistance" in the passage is closest in meaning to**

(A) criticism      (B) leadership

(C) help      (D) approval

**6. According to paragraph 4, how did the early movies differ from previous spectacles that were presented to large audiences?**

(A) They were a more expensive form of entertainment.

(B) They were viewed by larger audiences.

(C) They were more educational.

**(D) They did not require live entertainers.**

**7. According to paragraph 5, what role did early exhibitors play in the presentation of movies in theaters?**

**(A) They decided how to combine various components of the film program.**

(B) They advised film-makers on appropriate movie content.

(C) They often took part in the live-action performances.

(D) They produced and prerecorded the material that was shown in the theaters.

**8. Which of the following is mentioned in paragraph 6 as one of the ways the Mutoscope differed from the Kinetoscope?**

(A) Sound and motion were simultaneously produced in the Mutoscope.

(B) More than one person could view the images at the same time with the Mutoscope.

(C) The Mutoscope was a less sophisticated earlier prototype of the Kinetoscope.

(D) A different type of material was used to produce the images used in the Mutoscope.

9. The word “It” in the passage refers to

- (A) The advent of projection      (B) The viewer's relationship with the image  
(C) A similar machine      (D) Celluloid

10. According to paragraph 6, the images seen by viewers in the earlier peepshows, compared to the images projected on the screen, were relatively?

- (A) Small in size      (B) Inexpensive to create  
(C) Unfocused      (D) Limited in subject matter

11. The word “expanded” in the passage is closest in meaning to

- (A) was enlarged      (B) was improved  
(C) was varied      (D) was rejected

### Practice Test 175

Tunas, mackerels, and billfishes (marlins, sailfishes, and swordfish) swim continuously. Feeding, courtship, reproduction, and even “rest” are so carried out while in constant motion. As a result, practically every aspect of the body form and function of these swimming “machines” is adapted to enhance their ability to swim. Many of the adaptations of these fishes serve to reduce water resistance (drag). Interestingly enough, several of these hydrodynamic adaptations resemble

features designed to improve the aerodynamics of high-speed aircraft. Though human engineers are new to the game, tunas and their relatives evolved their “high-tech” designs long ago. Tunas, mackerels, and billfishes have made streaming into an art form. Their bodies are sleek and compact. The body shapes of tunas, in fact, are nearly ideal from an engineering point of view. Most species lack scales over most of the body, making it smooth and slippery. The eyes lie flush with the body and do not protrude at all. They are also covered with a slick, transparent lid that reduces drag. The fins are stiff, smooth, and narrow, qualities that also help cut drag. When not in use, the fins are tucked into special grooves or depressions so that **they** lie flush with the body and do not break up its smooth contours. Airplanes retract their landing gear while in flight for the same reason. Tunas, mackerels, and billfishes have even more **sophisticated** adaptations than these to improve their hydrodynamics. The long bill of marlins, sailfishes, and swordfish probably helps them slip through the water. Many supersonic aircraft have a similar needle at the nose. Most tunas and billfishes have a series of keels and finlets near the tail. Although most of their scales have been lost, tunas and mackerels retain a patch of coarse scales near the head called the corselet. The keels, finlets, and corselet help direct the flow of water over the body surface in such a way as to reduce resistance. Again, supersonic jets have similar features. Because they are always swimming, tunas simply have to open their mouths and water is forced in and over their gills. Accordingly, they have lost most of the muscles that other fishes use to suck in water and push it past the gills. In fact, tunas must swim to breathe. They must also keep swimming to keep from sinking, since most have largely or completely lost the swim bladder, the gas-filled sac that helps most other fish remain buoyant. One potential problem is that opening the mouth to breathe detracts from the streamlining of these fishes and tends to slow them down. Some species of tuna have specialized grooves

in their tongue. It is thought that these grooves help to **channel** water through the mouth and out the gill slits, thereby reducing water resistance. There are adaptations that increase the amount of forward thrust as well as those that reduce drag. Again, these fishes are the envy of engineers. Their high, narrow tails with swept-back tips are almost perfectly adapted to provide propulsion with the least possible effort. Perhaps most important of all to these and other fast swimmers is their ability to sense and make use of swirls and eddies (circular currents) in the water. They can glide past eddies that would slow them down and then gain extra thrust by "pushing off" the eddies. Scientists and engineers are beginning to study this ability of fishes in the hope of designing more efficient propulsion systems for ships.

The muscles of these fishes and the mechanism that maintains a warm body temperature are also highly efficient. A blue fin tuna in water of 7°C (45°F) can maintain a core temperature of over 25°C (77°F). This warm body temperature may help not only the muscles to work better, but also the brain and the eyes. The billfishes have gone one step further. They have evolved special "heaters" of modified muscle tissue that warm the eyes and brain, maintaining peak performance of these critical organs.

**1. The word enhance in the passage is closest in meaning to**

- (A) Use                      **(B) Improve**                      (C) Counteract                      (D) Balance

**2. The word they in the passage refers to**

- (A) Qualities                      **(B) Fins**                      (C) Grooves                      (D) Depressions

**3. Why does the author mention that Airplanes retract their landing gear while in flight?**

- (A) To show that air resistance and water resistance work differently from each other
- (B) To argue that some fishes are better designed than airplanes are
- (C) To provide evidence that airplane engine have studied the design of fish bodies
- (D) To demonstrate a similarity in design between certain fishes and airplanes**

**4. The word sophisticated in the passage is closest in meaning to**

- (A) Complex**
- (B) Amazing
- (C) Creative
- (D) Practical

**5. According to paragraph4, the long bills of marlins, sailfish, and swordfish probably help these fishes by**

- (A) Increasing their ability to defend themselves.
- (B) Allowing them to change direction easily.
- (C) Increasing their ability to detect odors.
- (D) Reducing water resistance as they swim.**

**6. According to the passage, which of the following is one of the reasons that tunas are in constant motion?**

- (A) They lack a swim bladder.**
- (B) They need to suck in more water than other fishes do.

(C) They have large muscles for breathing.

(D) They cannot open their mouths unless they are in motion.

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

(A) These fishes often have a problem opening their mouths while swimming.

(B) The streamlining of these fishes prevents them from slowing down.

(C) The streamlining of these fishes tends to slow down their breathing.

**(D) Opening the mouth to breathe can reduce the speed of these fishes.**

**8. The word channel in the passage is closest in meaning to?**

(A) Reduce      (B) Remove      **(C) Direct**      (D) Provide

**9. According to the passage, one of the adaptations of fast-swimming fishes that might be used to improve the performance of ships is these fishes' ability to**

(A) Swim directly through eddies.

**(B) Make efficient use of water currents.**

(C) Cover great distances without stopping.

(D) Gain speed by forcing water past their gills.

**10. According to paragraph 9, which of the following is true of bluefin tunas?**

(A) Their eyes and brain are more efficient than those of any other fish.

(B) Their body temperature can change greatly depending on the water temperature.

(C) They can swim in waters that are much colder than their own bodies.

(D) They have special muscle tissue that warms their eyes and brain. Again, supersonic jets have similar features.

### **Practice Test 176**

Joy and sadness are experienced by people in all cultures around the world, but how can we tell when other people are happy or **despondent**? It turns out that the expression of many emotions may be universal. Smiling is apparently a universal sign of friendliness and approval. Baring the teeth in a hostile way, as noted by Charles Darwin in the nineteenth century, may be a universal sign of anger. As the originator of the theory of evolution, Darwin believed that the universal recognition of facial expressions would have survival value. For example, facial expressions could signal the approach of enemies (or friends) in the absence of language.

Most investigators **concur** that certain facial expressions suggest the same emotions in all people. Moreover, people in diverse cultures recognize the emotions manifested by the facial expressions. In classic research Paul Ekman took photographs of people exhibiting the emotions of anger, disgust, fear, happiness, and sadness. He then asked people around the world to indicate what emotions were being depicted in **them**. Those queried ranged from European college students to members of the Fore, a tribe that dwells in the New Guinea highlands. All groups, including the Fore, who had almost no contact with Western culture, agreed on the portrayed emotions. The Fore also displayed familiar facial expressions when asked how they would respond if they were the characters in stories that called for basic emotional responses. Ekman and his colleagues more recently obtained similar results in a study of ten cultures in which participants were permitted to report that multiple emotions were shown by facial expressions. The participants generally

agreed on which two emotions were being shown and which emotion was more intense. Psychological researchers generally recognize that facial expressions reflect emotional states. In fact, various emotional states give rise to certain patterns of electrical activity in the facial muscles and in the brain. The facial-feedback hypothesis argues, however, that the causal relationship between emotions and facial expressions can also work in the opposite direction. According to this hypothesis, signals from the facial muscles ("feedback) are sent back to emotion centers of the brain, and so a person's facial expression can influence that person's emotional state. Consider Darwin's words: "The free expression by outward signs of an emotion intensifies it. On the other hand, the repression, as far as possible, of all outward signs softens our emotions." Can smiling give rise to feelings of good will, for example, and frowning to anger? Psychological research has given rise to some interesting findings concerning the facial-feedback hypothesis. Causing participants in experiments to smile, for example, leads **them** to report more positive feelings and to rate cartoons (humorous drawings of people or situations) as being more humorous. When they are caused to frown, they **rate** cartoons as being more aggressive. What are the possible links between facial expressions and emotion? One link is arousal, which is the level of activity or preparedness for activity in an organism. Intense contraction of facial muscles, such as those used in signifying fear, heightens arousal. Self-perception of heightened arousal then leads to heightened emotional activity. Other links may involve changes in brain temperature and the release of neurotransmitters (substances that transmit nerve impulses.) The contraction of facial muscles both influences the internal emotional state and reflects it. Ekman has found that the so-called Duchenne smile, which is characterized by "crow' s feet" wrinkles around the eyes and a subtle drop in the eye cover fold so that the skin above the eye moves down slightly toward the eyeball, can lead to

pleasant feelings. Ekman's observation may be **relevant** to the British expression "keep a stiff upper lip" as a recommendation for handling stress. It might be that a "stiff" lip suppresses emotional response -- as long as the lip is not quivering with fear or tension. But when the emotion that leads to stiffening the lip is more intense, and involves strong muscle tension, facial feedback may heighten emotional response.

1. The word **despondent** in the passage is closest in meaning to

- (A) Curious      (B) Unhappy      (C) Thoughtful      (D) Uncertain

2. The author mentions "Baring the teeth in a hostile way" in order to

(A) Differentiate one possible meaning of a particular facial expression from other meanings of it.

(B) Support Darwin's theory of evolution.

(C) Provide an example of a facial expression whose meaning is widely understood.

(D) Contrast a facial expression that is easily understood with other facial expressions.

3. The word **concur** in the passage is closest in meaning to

- (A) Estimate      (B) Agree      (C) Expect      (D) Understand

4. The word **them** in the passage refers to

- (A) Emotions      (B) People      (C) Photographs      (D) Cultures

**5. According to paragraph 2, which of the following was true of the Fore people of New Guinea?**

(A) They did not want to be shown photographs.

(B) They were famous for their story-telling skills.

(C) They knew very little about Western culture.

(D) They did not encourage the expression of emotions.

**6. 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) The Fore's facial expressions indicated their unwillingness to pretend to be story characters.

(B) The Fore were asked to display familiar facial expressions when they told their stories.

(C) The Fore exhibited the same relationship of facial expressions and basic emotions that is seen in Western culture when they acted out stories.

(D) The Fore were familiar with the facial expressions and basic emotions of characters in stories.

**7. According to the passage, what did Darwin believe would happen to human emotions that were not expressed?**

(A) They would become less intense.      (B) They would last longer than usual.

(C) They would cause problems later. (D) They would become more negative.

**8. According to the passage, research involving which of the following supported the facial-feedback hypothesis?**

**(A) The reactions of people in experiments to cartoons.**

(B) The tendency of people in experiments to cooperate.

(C) The release of neurotransmitters by people during experiments.

(D) The long-term effects of repressing emotions.

**9. The word rate in the passage is closest in meaning to**

**(A) Judge**

(B) Reject

(C) Draw

(D) Want

**10. The word relevant in the passage is closest in meaning to**

(A) Contradictory

(B) Confusing

(C) Dependent

**(D) Applicable**

**11. According to the passage, stiffening the upper lip may have which of the following effects?**

(A) It first suppresses stress, then intensifies it.

(B) It may cause fear and tension in those who see it.

(C) It can damage the lip muscles.

**(D) It may either heighten or reduce emotional response.**

## Practice Test 177

Most people consider the landscape to be unchanging, but Earth is a dynamic body, and its surface is continually altering—slowly on the human time scale, but **relatively** rapidly when compared to the great age of Earth (about 4,500 billion years). There are two principal influences that shape the terrain: constructive processes such as uplift, which create new landscape features, and destructive forces such as erosion, which gradually wear away exposed landforms.

Hills and mountains are often regarded as the epitome of permanence, successfully resisting the destructive forces of nature, but in fact they tend to be **relatively** short-lived in geological terms. As a general rule, the higher a mountain is, the more recently it was formed; for example, the high mountains of the Himalayas are only about 50 million years old. Lower mountains tend to be older, and are often the eroded **relics** of much higher mountain chains. About 400 million years ago, when the present-day continents of North America and Europe were joined, the Caledonian mountain chain was the same size as the modern Himalayas. Today, however, the **relics** of the Caledonian orogeny (mountain-building period) exist as the comparatively low mountains of Greenland, the northern Appalachians in the United States, the Scottish Highlands, and the Norwegian coastal plateau.

The Earth's crust is thought to be divided into huge, movable segments, called plates, which float on a soft plastic layer of rock. Some mountains were formed as a result of these plates crashing into each other and forcing up the rock at the plate margins. In this process, sedimentary rocks that originally formed on the seabed may be folded upwards to altitudes of more than 26,000 feet. Other mountains may be raised by earthquakes, which fracture the Earth's crust and can displace enough rock to produce block mountains. A third type of mountain may be formed as a result of

volcanic activity which occurs in regions of active fold mountain belts, such as in the Cascade Range of western North America. The Cascades are made up of lavas and volcanic materials. Many of the peaks are extinct volcanoes. Whatever the reason for mountain formation, as soon as land rises above sea level it is subjected to destructive forces. The exposed rocks are attacked by the various weather processes and gradually broken down into fragments, which are then carried away and later deposited as sediments. Thus, any landscape represents only a temporary stage in the continuous battle between the forces of uplift and those of erosion.

The weather, in its many forms, is the main agent of erosion. Rain washes away loose soil and penetrates cracks in the rocks. Carbon dioxide in the air reacts with the rainwater, forming a weak acid (carbonic acid) that may chemically attack the rocks. The rain **seeps** underground and the water may reappear later as springs. These springs are the sources of streams and rivers, which cut through the rocks and carry away debris from the mountains to the lowlands.

Under very cold conditions, rocks can be shattered by ice and frost. Glaciers may form in permanently cold areas, and these slowly moving masses of ice cut out valleys, carrying with **them** huge quantities of eroded rock debris. In dry areas the wind is the principal agent of erosion. It carries fine particles of sand, which bombard exposed rock surfaces, thereby wearing **them** into yet more sand. Even living things contribute to the formation of landscapes. Tree roots force their way into cracks in rocks and, in so doing, speed their splitting. In contrast, the roots of grasses and other small plants may help to hold loose soil fragments together, thereby helping to prevent erosion by the wind.

**1. According to paragraph 1, which of the following statements is true of changes in Earth's landscape?**

- (A) They occur more often by uplift than by erosion
- (B) They occur only at special times.
- (C) They occur less frequently now than they once did.
- (D) They occur quickly in geological terms.**

**2. The word relatively in the passage is closest in meaning to**

- (A) Unusually
- (B) Comparatively**
- (C) Occasionally
- (D) Naturally

**3. Which of the following can be inferred from paragraph 2 about the mountains of the Himalayas?**

- (A) Their current height is not an indication of their age.
- (B) At present, they are much higher than the mountains of the Caledonian range.**
- (C) They were a uniform height about 400 million years ago.
- (D) They are not as high as the Caledonian mountains were 400 million years ago.

**4. The word relics in the passage IS closest in meaning to**

- (A) Resemblances
- (B) Regions
- (C) Remains**
- (D) Restorations

**5. According to paragraph 3, one cause of mountain formation is the**

- (A) effect of climatic change on sea level
- (B) slowing down of volcanic activity
- (C) force of Earth's crustal plates hitting each other
- (D) replacement of sedimentary rock with volcanic rock

**6. Why does the author mention Carbon dioxide in the passage?**

- (A) To explain the origin of a chemical that can erode rocks
- (B) To contrast carbon dioxide with carbonic acid
- (C) To give an example of how rainwater penetrates soil
- (D) To argue for the desirability of preventing erosion

**7. The word seeps in the passage is closest in meaning to**

- (A) Dries gradually
- (B) Flows slowly
- (C) Freezes quickly
- (D) Warms slightly

**8. The word them in the passage refers to**

- (A) Cold areas
- (B) Masses of ice
- (C) Valleys
- (D) Rock debris

**9. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage?**

- (A) When they are relatively young, hills and mountains successfully resist the destructive forces of nature.

(B) Although they seem permanent, hills and mountains exist for a relatively short period of geological time.

(C) Hills and mountains successfully resist the destructive forces of nature, but only for a short time.

(D) Hills and mountains resist the destructive forces of nature better than other types of landforms.

**10. According to paragraph 6, which of the following is both a cause and result of erosion?**

(A) Glacial activity

(B) Rock debris

(C) Tree roots

(D) Sand

### **Practice Test 178**

Buffalo, zebras, wildebeests, topi, and Thomson's gazelles live in huge groups that together make up some 90 percent of the total weight of mammals living on the Serengeti Plain of East Africa. They are all herbivores (plant-eating animals), and they all appear to be living on the same diet of grasses, herbs, and small bushes. This appearance, however, is **illusory**. When biologist Richard Bell and his colleagues analyzed the stomach contents of four of the five species (they did not study buffalo), they found that each species was living on a different part of the vegetation. The different vegetational parts differ in their food qualities: lower down, there are succulent, nutritious leaves; higher up are the harder stems. There are also **sparsely** distributed, highly nutritious fruits, and Bell found that only the Thomson's gazelles

eat much of these. The other three species differ in the proportion of lower leaves and higher stems that they eat: zebras eat the most stem matter, wildebeests eat the most leaves, and topi are intermediate.

How are we to understand their different feeding preferences? The answer lies in two **associated** differences among the species, in their digestive systems and body sizes. According to their digestive systems, these herbivores can be divided into two categories: the nonruminants (such as the zebra, which has a digestive system like a horse) and the ruminants (such as the wildebeest, topi, and gazelle, which are like the cow). Nonruminants cannot extract much energy from the hard parts of a plant; however, this is more than made up for by the fast speed at which food passes through their guts. Thus, when there is only a short supply of poor-quality food, the wildebeest, topi, and gazelle enjoy an advantage. They are ruminants and have a special structure (the rumen) in their stomachs, which contains microorganisms that can break down the hard parts of plants. Food passes only slowly through the ruminant's gut because ruminating—digesting the hard parts—takes time. The ruminant continually regurgitates food from its stomach back to its mouth to chew it up further (that is what a cow is doing when “chewing cud”). Only when it has been chewed up and digested almost to a liquid can the food pass through the rumen and on through the gut. Larger particles cannot pass through until they have been chewed down to size. Therefore, when food is in short supply, a ruminant can last longer than a nonruminant because it can derive more energy out of the same food. The difference can partially explain the eating habits of the Serengeti herbivores. The zebra chooses areas where there is more low-quality food. It migrates first to unexploited areas and chomps the abundant low-quality stems before moving on. It is a fast-in/fast-out feeder, relying on a high output of incompletely digested food. By the time the wildebeests (and other ruminants) arrive, the grazing and trampling

of the zebras will have worn the vegetation down. As the ruminants then set to work, they eat down to the lower, leafier parts of the vegetation. All of this fits in with the differences in stomach contents with which we began.

The other part of the explanation is body size. Larger animals require more food than smaller animals, but smaller animals have a higher metabolic rate. Smaller animals can therefore live where there is less food, **provided that** such food is of high energy content. That is why the smallest of the herbivores, Thomson's gazelle, lives on fruit that is very nutritious but too thin on the ground to support a larger animal. By contrast, the large zebra lives on the masses of low-quality stem material. The differences in feeding preferences lead, in turn, to differences in migratory habits. The wildebeests follow, in their migration, the pattern of local rainfall. The other species do likewise. But when a new area is fueled by rain, the mammals migrate toward it in a set order to exploit it. The larger, less **fastidious** feeders, the zebras, move in first; the choosier, smaller wildebeests come later; and the smallest species of all, Thomson's gazelle, arrives last. The later species all depend on the preparations of the earlier one, for the actions of the zebra alter the vegetation to suit the stomachs of the wildebeest, topi, and gazelle.

1. The word **illusory** in the passage is closest in meaning to

- (A) definite      (B) illuminating      (C) misleading      (D) exceptional

2. The word **sparsely** in the passage is closest in meaning to

- (A) widely      (B) thinly      (C) clearly      (D) freshly

**3. Which of the following questions about Richard Bell's research is NOT answered in paragraph 1?**

(A) Which of the herbivores studied is the only one to eat much fruit?

(B) Which part of the plants do wildebeests prefer to eat?

(C) Where did the study of herbivores' eating habits take place?

**(D) Why were buffalo excluded from the research study?**

**4. The word associated in the passage is closest in meaning to**

(A) obvious

(A) significant

(A) expected

**(A) connected**

**5. The author mentions the cow and the horse in paragraph 2 in order to**

(A) distinguish the functioning of their digestive systems from those of East African animals.

(B) emphasize that their relatively large body size leads them to have feeding practices similar to those of East African mammals.

**(C) illustrate differences between ruminants and nonruminants through the use of animals likely to be familiar to most readers.**

(D) emphasize similarities between the diets of cows and horses and the diets of East African mammals.

**6. According to paragraph 2, which of the following herbivores has to eat large quantities of plant stems because it gains relatively little energy from each given quantity of this food?**

- (A) The gazelle      (B) The wildebeest      **(C) The zebra**      (D) The topi

**7. Paragraph 2 suggests that which of the following is one of the most important factors in determining differences in feeding preferences of East African herbivores?**

- (A) The availability of certain foods.  
**(B) The differences in stomach structure.**  
(C) The physical nature of vegetation in the environment.  
(D) The ability to migrate when food supplies are low.

**8. According to paragraph 2, all of the following are true of East African gazelles EXCEPT:**

- (A) They digest their food very quickly.**  
(B) Microorganisms help them digest their food.  
(C) They are unable to digest large food particles unless these are chewed down considerably.  
(D) They survive well even if food supplies are not abundant.

**9. The phrase provided that in the passage is closest in meaning to**

- (A) as long as**      (B) unless      (C) as if      (D) even though

10. The word **fastidious** in the passage is closest in meaning to

- (A) rapid            (B) determined            (C) flexible            **(D) demanding**

11. According to paragraph 4, which of the following mammals exhibits a feeding behavior that is beneficial to the other herbivores that share the same habitat?

- (A) Topi            **(B) Zebra**            (C) Wildebeest            (D) Gazelle

12. According to the passage, which of the following is true of wildebeests?

- (A) They eat more stem matter than zebras do.
- (B) They are able to digest large food particles if the food is of a high quality.
- (C) They tend to choose feeding areas in which the vegetation has been worn down.**
- (D) They are likely to choose low-quality food to eat in periods when the quantity of rainfall is low.

### **Practice Test 179**

Icebergs are massive blocks of ice, irregular in shape; they float with only about 12 percent of their mass above the sea surface. They are formed by glaciers—large rivers of ice that begin inland in the snows of Greenland, Antarctica, and Alaska—and move slowly toward the sea. The forward movement, the melting at the base of the glacier where it meets the ocean, and waves and tidal action cause blocks of ice to break off and float out to sea.

Icebergs are ordinarily blue to white, although they sometimes appear dark or opaque because they carry gravel and bits of rock. They may change color with changing light conditions and cloud cover, glowing pink or gold in the morning or

evening light, but this color change is generally related to the low angle of the Sun above the horizon. However, travelers to Antarctica have repeatedly reported seeing green icebergs in the Weddell Sea and, more commonly, close to the Amery Ice Shelf in East Antarctica.

One explanation for green icebergs attributes their color to an optical illusion when blue ice is illuminated by a near-horizon red Sun, but green icebergs stand out among white and blue icebergs under a great variety of light conditions. Another suggestion is that the color might be related to ice with high levels of metallic compounds, including copper and iron. Recent expeditions have taken ice samples from green icebergs and ice cores—vertical, cylindrical ice samples reaching down to great depths—from the glacial ice shelves along the Antarctic continent. Analyses of these cores and samples provide a different solution to the problem.

The ice shelf cores, with a total length of 215 meters (705 feet), were long enough to **penetrate** through glacial ice—which is formed from the compaction of snow and contains air bubbles—and to continue into the clear, bubble-free ice formed from seawater that freezes onto the bottom of the glacial ice. The properties of this clear sea ice were very similar to the ice from the green iceberg. The scientists concluded that green icebergs form when a two-layer block of shelf ice breaks away and capsizes (turns upside down), exposing the bubble-free shelf ice that was formed from seawater.

A green iceberg that stranded just west of the Amery Ice Shelf showed two distinct layers: bubbly blue-white ice and bubble-free green ice separated by a one-meter-long ice layer containing sediments. The green ice portion was textured by seawater erosion. Where cracks were present, the color was light green because of light scattering; where no cracks were present, the color was dark green. No air

bubbles were present in the green ice, suggesting that the ice was not formed from the compression of snow but instead from the freezing of seawater. Large concentrations of single-celled organisms with green pigments (coloring substances) occur along the edges of the ice shelves in this region, and the seawater is rich in their decomposing organic material. The green iceberg did not contain large amounts of particles from these organisms, but the ice had **accumulated** dissolved organic matter from the seawater. It appears that unlike salt, dissolved organic substances are not **excluded** from the ice in the freezing process. Analysis shows that dissolved organic material absorbs enough blue wavelengths from solar light to make the ice appear green. Chemical evidence shows that platelets (minute flat portions) of ice form in the water and then accrete and stick to the bottom of the ice shelf to form a slush (partially melted snow). The slush is compacted by an unknown mechanism, and solid, bubble-free ice is formed from water high in soluble organic substances. When an iceberg separates from the ice shelf and capsizes, the green ice is exposed.

The Amery Ice Shelf appears to be uniquely suited to the production of green icebergs. Once detached from the ice shelf, these bergs drift in the currents and wind systems surrounding Antarctica and can be found scattered among Antarctica's less colorful icebergs.

**1. According to paragraph 1, all of the following are true of icebergs EXCEPT:**

- (A) They do not have a regular shape.
- (B) They are formed where glaciers meet the ocean.
- (C) Most of their mass is above the sea surface.
- (D) Waves and tides cause them to break off glaciers.

**2. According to paragraph 2, what causes icebergs to sometimes appear dark or opaque?**

(A) A heavy cloud cover.

**(B) The presence of gravel or bits of rock.**

(C) The low angle of the Sun above the horizon.

(D) The presence of large cracks in their surface.

**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.**

(A) One explanation notes that green icebergs stand out among other icebergs under a great variety of light conditions, but this is attributed to an optical illusion.

(B) One explanation for the color of green icebergs attributes their color to an optical illusion that occurs when the light from a near-horizon red Sun shines on a blue iceberg.

(C) One explanation for green icebergs attributes their color to a great variety of light conditions, but green icebergs stand out best among other icebergs when illuminated by a near-horizon red Sun.

**(D) One explanation attributes the color of green icebergs to an optical illusion under special light conditions, but green icebergs appear distinct from other icebergs under a great variety of light conditions.**

4. The word penetrate in the passage is closest in meaning to

- (A) collect      (B) pierce      (C) melt      (D) endure

5. According to paragraph 4, how is glacial ice formed?

(A) By the compaction of snow.

(B) By the freezing of seawater on the bottom of ice shelves.

(C) By breaking away from the ice shelf.

(D) By the capsizing of a two-layer block of shelf ice.

6. According to paragraph 4, ice shelf cores helped scientists explain the formation of green icebergs by showing that

(A) the ice at the bottom of green icebergs is bubble-free ice formed from frozen seawater.

(B) bubble-free ice is found at the top of the ice shelf.

(C) glacial ice is lighter and floats better than sea ice.

(D) the clear sea ice at the bottom of the ice shelf is similar to ice from a green iceberg.

7. Why does the author mention that “The green ice portion was textured by seawater erosion”?

(A) To explain why cracks in the iceberg appeared light green instead of dark green.

(B) To suggest that green ice is more easily eroded by seawater than white ice is.

(C) To support the idea that the green ice had been the bottom layer before capsizing.

(D) To explain how the air bubbles had been removed from the green ice.

**8. The word accumulated in the passage is closest in meaning to**

(A) collected (B) frozen (C) released (D) covered

**9. The word excluded in the passage is closest in meaning to**

(A) kept out (B) compressed (C) damaged (D) gathered together

**10. The word accrete in the passage is closest in meaning to**

(A) advance (B) transfer (C) flatten out (D) come together

**11. Which of the following is NOT explained in the passage?**

(A) Why blocks of ice break off where glaciers meet the ocean.

(B) Why blocks of shelf ice sometimes capsize after breaking off.

(C) Why green icebergs are commonly produced in some parts of Antarctica.

(D) Why green icebergs contain large amounts of dissolved organic pigments.

**12. The passage supports which of the following statements about the Amery Ice Shelf?**

(A) The Amery Ice Shelf produces only green icebergs.

(B) The Amery Ice Shelf produces green icebergs because its ice contains high levels of metallic compounds such as copper and iron.

(C) The Amery Ice Shelf produces green icebergs because the seawater is rich in a particular kind of soluble organic material.

(D) No green icebergs are found far from the Amery Ice Shelf.

### **Practice Test 180**

The Moon has been worshipped by primitive peoples and has inspired humans to create everything from lunar calendars to love sonnets, but what do we really know about it? The most accepted theory about the origin of the Moon is that it was formed of the debris from a **massive** collision with the young Earth about 4.6 billion years ago. A huge body, perhaps the size of Mars, struck the Earth, throwing out an immense amount of **debris** that coalesced and cooled in orbit around the Earth. The development of Earth is inextricably linked to the moon; the Moon's gravitational influence upon the Earth is the primary cause of ocean tides. In fact, the Moon has more than twice the effect upon the tides than does the Sun. The Moon makes one rotation and completes a revolution around the Earth every 27 days, 7 hours, and 43 minutes. This synchronous rotation is caused by an **uneven** distribution of mass in the Moon (essentially, it is heavier on one side than the other) and has allowed the Earth's gravity to keep one side of the Moon permanently facing Earth. It is an average distance from Earth of 384,403 km.

The Moon has no atmosphere; without an atmosphere, the Moon has nothing to protect it from meteorite impacts, and thus the surface of the Moon is covered with impact craters, both large and small. The Moon also has no active tectonic or volcanic activity, so the erosive effects of atmospheric weathering, tectonic shifts, and volcanic upheavals that tend to **erase** and reform the Earth's surface features are not at work on the Moon. In fact, even tiny surface features such as the footprint left by an astronaut in the lunar soil are likely to last for millions of years, unless

obliterated by a chance meteorite strike. The surface gravity of the Moon is about one-sixth that of the Earth's. Therefore, a man weighing 82 kilograms on Earth would only weigh 14 kilograms on the Moon.

The geographical features of the Earth most like that of the Moon are, in fact, places such as the Hawaiian volcanic craters and the huge meteor crater in Arizona. The climate of the Moon is very unlike either Hawaii or Arizona, however; in fact the temperature on the Moon ranges between 123 degrees C. to -233 degrees C.

**1. What is the passage primarily about?**

(A) the Moon's effect upon the Earth.

(B) the origin of the Moon.

(C) what we know about the Moon and its differences to Earth.

(D) a comparison of the Moon and the Earth.

**2. The word "massive" in line 4 is closest in meaning to**

(A) unavoidable

(B) dense

(C) huge

(D) impressive

**3. The word "debris" in line 6 is closest in meaning to**

(A) rubbish

(B) satellites

(C) moons

(D) earth

**4. According to the passage, the Moon is**

(A) older than the Earth.

(B) protected by a dense atmosphere.

(C) composed of a few active volcanoes.

(D) the primary cause of Earth's ocean tides.

5. The word "uneven" in line 11 is closest in meaning to

(A) Heavier (B) Equally distributed (C) Orderly (D) Not uniform

6. Why does the author mention "impact craters" in line 16?

(A) to show the result of the Moon not having an atmosphere.

(B) to show the result of the Moon not having active tectonic or volcanic activity.

(C) to explain why the Moon has no plant life because of meteorites.

(D) to explain the corrosive effects of atmospheric weathering.

7. The word "erase" in line 19 is closest in meaning to

(A) change (B) impact (C) obliterate (D) erupt

8. A person on the Moon would weigh less than on the Earth because

(A) of the composition of lunar soil.

(B) the surface gravity of the Moon is less.

(C) the Moon has no atmosphere.

(D) the Moon has no active tectonic or volcanic activity.

9. All of the following are true about the Moon EXCEPT

(A) it has a wide range of temperatures.

(B) it is heavier on one side than the other.

(C) it is unable to protect itself from meteorite attacks.

(D) it has less effect upon the tides than the Sun.

**10. Which of the following can be inferred from the passage?**

(A) the Moon is not able to support human life.

(B) if the Moon had no gravitational influence, the Earth would not have tides.

(C) people living in Hawaii and Arizona would feel at home on the Moon.

(D) Mars could have been formed in a similar way to the Moon.

### **Practice Test 181**

People of Hispanic origin were on the North American continent centuries before settlers arrived from Europe in the early 1600s and the thirteen colonies joined together to form the United States in the late 1700s. The first census of the new nation was conducted in 1790, and counted about four million people, most of whom were white. Of the white citizens, more than 80% traced **their ancestry** back to England. There were close to 700,000 slaves and about 60,000 “free Negroes”. Only a few Native American Indians who paid taxes were included in the census count, but the total Native American population was probably about one million.

By 1815, the population of the United States was 8.4 million. Over the next 100 years, the country took in about 35 million immigrants, with the greatest numbers coming in the late 1800s and early 1900s. In 1882, 40,000 Chinese arrived, and between 1900 and 1907, there were more than 30,000 Japanese immigrants. But by far, the largest numbers of the new immigrants were from central, eastern, and southern Europe.

An enormous amount of racial and ethnic assimilation has taken place in the United States. In 1908, play-writer Israel Zangwill first used the term “melting pot” to describe the **concept** of a place where many races melted in a crucible and re-formed to populate a new land. Some years during the first two decades of the 20th century, there were as many as one million new immigrants per year, an astonishing 1 percent of the total population of the United States.

In 1921, however, the country began to limit immigration, and the Immigration Act of 1924 **virtually** closed the door. The total number of immigrants admitted per year dropped from as many as a million to only 150,000. A quota system was established that specified the number of immigrants that could come from each country. It heavily favored immigrants from northern and western Europe and severely limited everyone else. This system remained in effect until 1965, although after World War II, several exceptions were made to the quota system to allow in groups of refugees.

**1. Why did the author write the passage?**

- (A) to outline the ways immigration has been restricted.
- (B) to emphasize the impact of migrants from Europe.
- (C) to explain and give examples of the concept of a “melting pot”.
- (D) to summarize the main features of immigration.**

**2. According to the passage, which ancestry predominated at the time of the first census?**

- (A) Native Americans
- (B) Negroes
- (C) English**
- (D) Hispanic

3. The word “ancestry” in line 5 is closest in meaning to

- (A) origins (B) inheritance (C) color (D) freedom

4. The word “their” in line 5 refers to which of the following

- (A) immigrants (B) people of Hispanic origin  
(C) white citizens (D) Native Americans

5. Which of the following is true, according to the passage?

- (A) a quota system was in place from 1908.  
(B) a peak period of immigration was in the late 1800s and early 1900s.  
(C) slaves were not counted in the first census.  
(D) only those who paid taxes were included in the first census.

6. The number of immigrants taken in over the 100 years to 1915 was

- (A) probably about 1 million (B) about 35 million  
(C) 8.4 million (D) about 4 million

7. The word “concept” in line 16 is closest in meaning to

- (A) location (B) type (C) complexity (D) thought

8. The word “virtually” in line 21 is closest in meaning to

- (A) effectively (B) occasionally (C) thoroughly (D) undeservedly

**9. Which of the following is NOT true about immigrants**

(A) they were subjected to an official quota in the Immigration Act from 1924.

(B) during the 1900s immigrants numbered 1 percent of the total population.

(C) settlers of Hispanic origin arrived centuries before those from Europe.

(D) numbers began to be limited from 1921.

**10. Which of the following can be inferred from the passage**

(A) preserving a developing “American” culture was a major factor leading to the introduction of the quota system.

(B) racial and ethnic assimilation did not occur as planned.

(C) racial and ethnic tensions would have increased if the quota system had not been introduced.

(D) the quota system was introduced to limit population growth.

**Practice Test 182**

At the turn of the nineteenth century, Concord was a thriving community, already famous throughout the young nation for its critical early role in the events leading up to the American Revolution. It was the half shire town for Middlesex County, attracting over 500 visitors to the courts twice a year, among them customers for Concord’s hats, shoes, carriages and clocks. Among Concord’s approximately 400

heads of households in this period, about 65% were in agriculture, 4% in commerce, and 35% in manufacturing.

Of those in manufacturing, seven men headed clockmaking shops and another thirty or so were engaged in the shops or in businesses that supplied the clockmaking trade the brass foundry, iron forge, wire-drawing mill, and a number of cabinetmaking shops. **In short**, the center of Concord, the Milldam, was a machine for the production of clocks, second only in importance to Boston's industrial Roxbury Neck, where the influential Willard family had been producing clocks since about 1785. While the handsome and well-crafted clocks of these seven shops, featuring inlaid mahogany cases, enameled dials and reverse painted glasses, are generally perceived as products of a traditional clockmaker (one person at a bench fashioning an eight-day clock from scratch) , they are actually products of a network of shops employing journeymen labor that extended from Concord to Boston and overseas to the highly developed tool trade of Lancashire, England, In addition to crafting in the fashionable Willard features such as the pierced fretwork, columns with brass fixtures, and white enamel dial, Concord clockmakers attempted to **differentiate** their products from those of the Willards through such means as a distinctive ornamental inlay, which added to the perception of custom work not usually seen on the Willard's standardized products. The Willards also made less expensive wall clocks, including "banjo clocks" patented by Simon Willard in 1802. The distinctive diamond shaped design and **inverted** movement of some Concord wall clocks may reflect an attempt to **circumvent** Willard's patent.

### 1. What is the passage primarily about?

- (A) clockmaking in Concord at the turn of the nineteenth century.
- (B) Concord at the turn of the nineteenth century.
- (C) Competition between Concord clockmakers and the Willards.

(D) The influence of the Willards on clockmaking in Concord.

**2. According to the passage, which of the following businesses did NOT supply the clockmaking trade?**

- (A) wire-drawing mill
- (B) cabinetmaking shops
- (C) iron forge
- (D) glass shops

**3. The phrase “in short” in line 11 is closest in meaning to**

- (A) generally speaking
- (B) to sum up
- (C) in conclusion
- (D) however

**4. According to the passage, “the Milldam” was**

- (A) where the Willard family had been producing clocks
- (B) a type of clock
- (C) in Boston’s industrial Roxbury Neck
- (D) in Concord

**5. Which of the following terms does the author explain in the passage?**

- (A) banjo clocks (line 24)
- (B) journeymen labor (line 17)
- (C) traditional clockmaker (line 15)
- (D) pierced fretwork (line 20)

**6. Which of the following features is NOT mentioned as a way the Concord clockmakers attempted to differentiate their products from Willards**

- (A) inverted movements
- (B) brass fixtures
- (C) distinctive ornamental inlay
- (D) diamond shaped design

7. The word “differentiate” in line 21 is closest in meaning to

- (A) identify      (B) distinguish      (C) dignify      (D) divide

8. The author implies that the Concord clockmakers

- (A) would do anything to try to compete with Willards  
(B) attempted to customize their products as much as possible  
(C) were the most important industry in Concord  
(D) were in danger of being prosecuted for breach of patent

9. The word “inverted” in line 26 is closest in meaning to

- (A) intricate      (B) musical      (C) upside down      (D) external

10. The word “circumvent” in line 27 is closest in meaning to

- (A) copy      (B) evade  
(C) compete with      (D) minimize

11. Where in the passage does the author mention the features of the well-crafted clocks of Concord?

- (A) lines 5-9      (B) lines 10-14      (C) lines 15-19      (D) lines 20-25

### Practice Test 183

The economic expansion prompted by the Second World War triggered a spectacular population boom in the West. Of course, the region was no stranger to population booms. Throughout much of its history, western settlement had been characterized by spurts, rather than by a pattern of gradual and steady population growth, beginning with the gold and silver rushes of the 1850's and 1860's. The

decade after the First World War — the 1920's — witnessed another major surge of people pouring into the West, particularly into urban areas. But the economic depression of the 1930's brought this expansion to a halt; some of the more sparsely settled parts of the region actually lost population as migrants sought work in more heavily industrialized areas. By 1941, when the United States entered the Second World War and began to mobilize, new job opportunities were created in the western part of the nation.

If the expansion of industries, such as shipbuilding and aircraft manufacturing, was most striking on the Pacific coast, **it** also affected interior cities like Denver, Phoenix, and Salt Lake City. Equally dramatic were the effects of the establishment of aluminum plants in Oregon and Washington and the burgeoning steel industry in Utah and California. The flow of people into these areas provided an **enormous** impetus to the expansion of the service industries — banks, health care services, and schools. Although strained to the limit by the influx of newcomers, western communities welcomed the vast reservoir of new job opportunities. At the same time, the unprecedented expansion of government installations in the West, such as military bases, created thousands of new civilian openings. As land had served as a magnet for western migrants in the late nineteenth century, so wartime mobilization set in motion another major expansion of population. Indeed, it could be said that the entire western United States became a giant boomtown during the Second World War. This was especially true of California. Of the more than eight million people who moved into the West in the decade after 1940, almost one-half went to the Pacific coast. In fact, between 1940 and 1950, California's population surged by more than three million people.

**1. What is the main point of the passage?**

(A) California dominated the economic growth of the West during the Second World War.

(B) Industrial growth during the 1940's attracted large numbers of people to the West.

(C) The military drew people away from civilian jobs during the 1940's.

(D) The West experienced gradual and steady economic growth from 1900 to 1940.

**2. The word "triggered" in line 1 is closest in meaning to**

(A) was connected to (B) generated (C) interfered with (D) illuminated

**3. Why does the author mention "the gold and silver rushes of the 1850's and 1860's" in the first paragraph?**

(A) As causes of gradual population growth.

(B) As contrasts to later patterns of population growth.

(C) As illustrations of a market economy.

(D) As examples of western population booms.

**4. Which of the following occurred in the West during the 1920's?**

(A) Gold and silver deposits were discovered.

(B) The population density gradually increased.

(C) The population of the cities increased significantly.

(D) Many military bases were established.

**5. According to the passage, the depression of the 1930's caused which of the following?**

(A) A lack of population growth in the West.

(B) The building of new suburbs.

(C) A creation of more job opportunities.

(D) A growth in immigration from abroad.

**6. Which of the following statements about the shipbuilding industry is suggested by the passage?**

(A) It came into being during the First World War.

(B) Many new shipbuilding yards were established on the Pacific coast during the 1940's.

(C) Denver was considered to be a poor location for shipbuilding factories.

(D) Shipbuilding was the dominant industry in Oregon and Washington.

**7. The word "it" in line 13 refers to**

(A) expansion

(B) Denver

(C) manufacturing

(D) the Pacific coast

8. The word "enormous" in line 16 is closest in meaning to

- (A) unexpected      (B) immense      (C) adequate      (D) important

9. The passage suggests that industrialization in the West led to all of the following EXCEPT

(A) A reduction in the price of land.

(B) An increase in school construction.

(C) Improved access to doctors.

(D) An increase in the number of banks.

10. According to the passage, what was one result of the building of new military bases in the West in the 1940's?

(A) Military bases in other parts of the United States were closed.

(B) Many settlers were forced off their land.

(C) Many civilian jobs were created.

(D) The cost of living rose sharply in California and other western states.

11. It can be inferred from the passage that the principal cause of California's population surge between 1940 and 1950 was

(A) the increased availability of land.

(B) people's desire to live in a warm, coastal climate.

(C) the industrial mobilization necessitated by the Second World War.

(D) overcrowding in urban areas in other regions of the United States.

### **Practice Test 184**

For 150 years scientists have tried to determine the solar constant, the amount of solar energy that reaches the Earth. Yet, even in the most cloud-free regions of the planet, the solar constant cannot be measured precisely. **Gas molecules and dust** particles in the atmosphere absorb and **scatter** sunlight and prevent some wavelengths of the light from ever reaching the ground. With the advent of satellites, however, scientists have finally been able to measure the Sun's output without being impeded by the Earth's atmosphere. Solar Max, a satellite from the National Aeronautics and Space Administration (NASA), has been measuring the Sun's output since February 1980. Although a malfunction in the satellite's control system limited **its** observation for a few years, the satellite was repaired in orbit by astronauts from the space shuttle in 1984. Max's observations indicate that the solar constant is not really constant after all.

The satellite's instruments have **detected** frequent, small variations in the Sun's energy output, generally amounting to no more than 0.05 percent of the Sun's mean energy output and lasting from a few days to a few weeks. Scientists believe these fluctuations coincide with the appearance and disappearance of large groups of sunspots on the Sun's disk. Sunspots are relatively dark regions on the Sun's surface that have strong magnetic fields and a temperature about 2,000 degrees Fahrenheit cooler than the rest of the Sun's surface. Particularly large fluctuations in the solar constant have coincided with sightings of large sunspot groups. In 1980, for example, Solar Max's instruments registered a 0.3 percent drop in the solar energy reaching the Earth. At that time a sunspot group covered about 0.6 percent of the

solar disk, an area 20 times larger than the Earth's surface. Long-term variations in the solar constant are more difficult to determine. Although Solar Max's data have indicated a slow and steady **decline** in the Sun's output, some scientists have thought that the satellite's aging detectors might have become less sensitive over the years, thus falsely indicating a drop in the solar constant. **This possibility** was dismissed, however, by comparing Solar Max's observations with data from a similar instrument operating on NASA's Nimbus 7 weather satellite since 1978.

**1. What does this passage mainly discuss?**

- (A) The launching of a weather satellite.
- (B) The components of the Earth's atmosphere.
- (C) The measurement of variations in the solar constant.**
- (D) The interaction of sunlight and air pollution.

**2. Why does the author mention "gas" and "dust" in line 3?**

- (A) They magnify the solar constant.
- (B) They are found in varying concentrations.
- (C) Scientific equipment is ruined by gas and dust.
- (D) They interfere with accurate measurement of the solar constant.**

**3. Why is it not possible to measure the solar constant accurately without a satellite?**

- (A) The Earth is too far from the Sun.
- (B) Some areas on Earth receive more solar energy than others.
- (C) There is not enough sunlight during the day.
- (D) The Earth's atmosphere interferes with the sunlight.**

**4. The word "scatter" in line 4 is closest in meaning to**

- (A) emit
- (B) capture
- (C) transform
- (D) disperse**

5. The word "its" in line 10 refers to the

- (A) orbit                      (B) atmosphere                      (C) satellite                      (D) malfunction

6. The word "detected" in line 13 is closest in meaning to

- (A) estimated                      (B) disregarded                      (C) registered                      (D) predicted

7. According to the passage, scientists believe variations in the solar constant are related to

(A) sunspot activity

(B) unusual weather patterns

(C) increased levels of dust

(D) fluctuations in the Earth's temperature

8. The word "decline" in line 25 is closest in meaning to

- (A) fall                      (B) reversal                      (C) release                      (D) fluctuation

9. Why did scientists think that Solar Max might be giving unreliable information?

(A) Solar Max did not work for the first few years.

(B) The space shuttle could not fix Solar Max's instruments.

(C) Solar Max's instruments were getting old.

(D) Nimbus 7 interfered with Solar Max's detectors.

10. The phrase "This possibility" in line 27 refers to the likelihood that the

(A) solar constant has declined.

(B) Nimbus 7 satellite is older than Solar Max.

(C) solar constant cannot be measured.

(D) instruments are providing inaccurate data.

11. The attempt to describe the solar constant can best be described as

(A) an ongoing research effort.

(B) an issue that has been resolved.

(C) a question that can never be answered.

(D) historically interesting, but irrelevant to contemporary concerns.

### **Practice Test 185**

Even before the turn of the century, movies began to develop in two major directions: the realistic and the formalistic. Realism and formalism are merely general, rather than absolute, terms. When used to suggest a tendency toward either polarity, such labels can be helpful, but in the end they are still just labels. Few films are exclusively formalist in style, and fewer yet are completely realist. There is also an important difference between realism and reality, although **this distinction** is often forgotten. Realism is a particular style, whereas physical reality is the source of all the raw materials of film, both realistic and formalistic.

Virtually all movie directors go to the photographable world for their subject matter, but what they do with this material — how they **shape** and manipulate it — determines their stylistic emphasis. Generally speaking, realistic films attempt to reproduce the surface of concrete reality with a minimum of distortion. In photographing objects and events, the filmmaker tries to suggest the copiousness of life itself. Both realist and formalist film directors must select (and hence emphasize) certain details from the chaotic sprawl of reality. But the element of selectivity in realistic films is less obvious. Realists, in short, try to **preserve** the illusion that their film world is unmanipulated, an objective mirror of the actual world.

Formalists, on the other hand, make no such pretense. **They** deliberately stylize and distort their raw materials so that only the very naive would mistake a manipulated image of an object or event for the real thing. We rarely notice the style in a realistic movie; the artist tends to be self-effacing. Some filmmakers are more concerned with what is being shown than how it is manipulated. The camera is used conservatively.

It is essentially a recording mechanism that reproduces the surface of **tangible** objects with as little commentary as possible. A high premium is placed on simplicity, spontaneity, and directness. This is not to suggest that these movies lack artistry, however, for at its best the realistic cinema specializes in art that conceals art.

**1. What does the passage mainly discuss?**

- (A) Acting styles.
- (B) Film plots.
- (C) Styles of filmmaking.**
- (D) Filmmaking 100 years ago.

**2. With which of the following statements would the author be most likely to agree?**

- (A) Realism and formalism are outdated terms.
- (B) Most films are neither exclusively realistic nor formalistic.**
- (C) Realistic films are more popular than formalistic ones.
- (D) Formalistic films are less artistic than realistic ones.

**3. The phrase "this distinction" in line 6 refers to the difference between**

- (A) formalists and realists
- (B) realism and reality**
- (C) general and absolute
- (D) physical reality and raw materials

**4. Whom does the author say is primarily responsible for the style of a film?**

- (A) The director**
- (B) The actors
- (C) The producer
- (D) The camera operator

5. The word "shape" in line 9 is closest in meaning to

- (A) specify (B) form (C) understand (D) achieve

6. The word "preserve" in line 15 is closest in meaning to

- (A) encourage (B) maintain (C) reflect (D) attain

7. The word "They" in line 17 refers to

- (A) films (B) realists (C) formalists (D) raw materials

8. How can one recognize the formalist style?

- (A) It uses familiar images.  
(B) It is very impersonal.  
(C) It obviously manipulates images.  
(D) It mirrors the actual world.

9. The word "tangible" in line 23 is closest in meaning to

- (A) concrete (B) complex (C) various (D) comprehensible

10. Which of the following terms is NOT used to describe realism in filmmaking?

- (A) Simple (B) Spontaneous (C) Self-effacing (D) Exaggerated

11. Which of the following films would most likely use a realist style?

- (A) A travel documentary (B) A science fiction film  
(C) A musical drama (D) An animated cartoon

### Practice Test 186

The word laser was coined as an acronym for Light Amplification by the Stimulated Emission of Radiation. Ordinary light, from the Sun or a light bulb, is emitted spontaneously, when atoms or molecules get rid of excess energy by themselves, without any outside intervention. Stimulated emission is different because it occurs

when an atom or molecule holding onto excess energy has been stimulated to emit **it** as light. Albert Einstein was the first to suggest the existence of stimulated emission in a paper published in 1917.

However, for many years physicists thought that atoms and molecules always were much more likely to emit light spontaneously and that stimulated emission thus always would be much weaker. It was not until after the Second World War that physicists began trying to make stimulated emission dominate. They sought ways by which one atom or molecule could stimulate many others to emit light, amplifying it to much higher powers. The first to succeed was Charles H. Townes, then at Columbia University in New York. Instead of working with light, however, he worked with microwaves, which have a much longer wavelength, and built a device he called a “maser,” for Microwave Amplification by the Stimulated Emission of Radiation.

Although he thought of the key idea in 1951, the first maser was not completed until a couple of years later. Before long, many other physicists were building masers and trying to discover how to produce stimulated emission at even shorter wavelengths. The key concepts **emerged** about 1957. Townes and Arthur Schawlow, then at Bell Telephone Laboratories, wrote a long paper **outlining** the conditions needed to amplify stimulated emission of visible light waves.

At about the same time, similar ideas crystallized in the mind of Gordon Gould, then a 37-year-old graduate student at Columbia, who wrote them down in a series of notebooks. Townes and Schawlow published their ideas in a scientific journal, *physical Review Letters*, but Gould filed a patent application. Three decades later, people still argue about who deserves the credit for the concept of the laser.

1. The word “**coined**” in line 1 could best be replaced by

(A) created

(B) mentioned

(C) understood

(D) discovered

2. The word “intervention” in line 4 can best be replaced by

- (A) need            (B) device            (C) influence            (D) source

3. The word “it” in line 4 refers to

- (A) light bulb            (B) energy            (C) molecule            (D) atom

4. Which of the following statements best describes a laser?

(A) A device for stimulating atoms and molecules to emit light.

(B) An atom in a high-energy state.

(C) A technique for destroying atoms or molecules.

(D) An instrument for measuring light waves.

5. Why was Towne's early work with stimulated emission done with microwaves?

(A) He was not concerned with light amplification.

(B) It was easier to work with longer wavelengths.

(C) His partner Schawlow had already begun work on the laser.

(D) The laser had already been developed.

6. In his research at Columbia University, Charles Townes worked with all of the following EXCEPT

(A) stimulated emission

(B) microwaves

(C) light amplification

(D) a maser

7. In approximately what year was the first maser built?

(A) 1917

(B) 1951

(C) 1953

(D) 1957

8. The word “emerged” in line 21 is closest in meaning to

(A) increased

(B) concluded

(C) succeeded

(D) appeared

9. The word “outlining” in line 22 is closest in meaning to

(A) assigning

(B) studying

(C) checking

(D) summarizing

**10. Why do people still argue about who deserves the credit for the concept of the laser?**

- (A) The researchers' notebooks were lost.
- (B) Several people were developing the idea at the same time.**
- (C) No one claimed credit for the development until recently.
- (D) The work is still incomplete.

**Practice Test 187**

Panel painting, common in thirteenth- and fourteenth-century Europe, involved a painstaking, laborious process. Wooden planks were joined, covered with gesso to prepare the surface for painting, and then polished smooth with special tools. On this perfect surface, the artist would sketch a composition with chalk, refine **it** with inks, and then begin the **deliberate** process of applying thin layers of egg tempera paint (egg yolk in which pigments are suspended) with small brushes. The successive layering of these meticulously applied paints produced the final, translucent colors. Backgrounds of gold were made by carefully applying sheets of gold leaf, and then embellishing or decorating the gold leaf by punching it with a metal rod on which a pattern had been embossed.

Every step in the process was slow and deliberate. The quick-drying tempera demanded that the artist know exactly where each stroke be placed before the brush met the panel, and it required the use of fine brushes. It was, therefore, an ideal technique for emphasizing the hard linear edges and pure, fine areas of color that were so much a part of the overall aesthetic of the time. The notion that an artist could or would dash off an idea in a fit of spontaneous inspiration was completely alien to these deliberately produced works.

Furthermore, making these paintings was so time-consuming that it **demanded** assistance. All such work was done by **collective enterprise** in the workshops. The painter or master who is credited with having created the painting may have designed the work and overseen its production, but it is highly unlikely that the artist's hand applied every stroke of the brush.

More likely, numerous assistants, who had been trained to **imitate** the artist's style, applied the paint. The carpenter's shop probably provided the frame and perhaps supplied the panel, and yet another shop supplied the gold. Thus, not only many hands, but also many shops were involved in the final product. In spite of problems with their condition, restoration, and preservation many panel paintings have survived, and today many of **them** are housed in museum collections.

**1. What aspect of panel paintings does the passage mainly discuss?**

- (A) Famous examples (B) Different styles  
(C) Restoration (D) Production

**2. According to the passage, what was the first step in making a panel painting?**

- (A) Mixing the paint (B) Preparing the panel  
(C) Buying the gold leaf (D) Making ink drawings

**3. The word “it” in line 4 refers to**

- (A) chalk (B) composition (C) artist (D) surface

**4. The word “deliberate” in line 5 is closest in meaning to**

- (A) decisive (B) careful  
(C) natural (D) unusual

**5. Which of the following processes produced the translucent colors found on panel paintings?**

- (A) Joining wooden planks to form large sheets  
(B) Polishing the gesso

(C) Applying many layers of paint

(D) Covering the background with gold leaf

**6. What characteristic of tempera paint is mentioned in the passage?**

(A) It dries quickly.

(B) It is difficult to make.

(C) It dissolves easily.

(D) It has to be applied directly to wood.

**7. The word “demanded” in line 18 is closest in meaning to**

(A) ordered            (B) reported            (C) required            (D) questioned

**8. The “collective enterprise” mentioned in line 19 includes all of the following EXCEPT**

(A) supplying the gold leaf

(B) building the panels

(C) applying the paint

(D) selling the painting

**9. The word “imitate” in line 23 is closest in meaning to**

(A) copy            (B) illustrate            (C) promote            (D) believe in

**10. The author mentions all of the following as problems with the survival of panel paintings EXCEPT**

(A) condition            (B) theft            (C) preservation            (D) restoration

**11. The word “them” in line 28 refers to**

(A) problems.

(B) condition, restoration, preservation.

(C) panel paintings.

(D) museum collections.

## Practice Test 188

Crows are probably the most frequently met and easily identifiable members of the native fauna of the United States. The great number of tales, legends, and myths about these birds indicates that people have been exceptionally interested in them for a long time. On the other hand, when it comes to substantive — particularly behavioral information, crows are less well known than many **comparably** common species and, for that matter, not a few quite uncommon ones: the endangered California condor, to cite one obvious example.

There are practical reasons for this. Crows are notoriously poor and aggravating subjects for field research. Keen observers and quick learners, they are astute about the intentions of other creatures, including researchers, and adept at avoiding **them**. Because they are so numerous, active, and monochromatic, it is difficult to distinguish one crow from another. Bands, radio transmitters, or other identifying devices can be attached to them, but this of course requires catching live crows, who are among the wariest and most untrappable of birds.

Technical difficulties aside, crow research is daunting because the ways of these birds are so complex and various. As preeminent generalists, members of this species ingeniously exploit a great range of habitats and resources, and they can quickly adjust to changes in their circumstances. Being so educable, individual birds have markedly different interests and **inclinations**, strategies and scams. For example, one pet crow learned how to let a dog out of its kennel by pulling the pin on the door. When the dog escaped, the bird went into the kennel and ate its food.

### 1. What is the main topic of the passage?

- (A) The ways in which crows differ from other common birds.
- (B) The myths and legends about crows.
- (C) The characteristics that make crows difficult to study.

(D) The existing methods for investigating crow behavior.

**2. According to the first paragraph, what evidence is there that crows have interested people for a long time?**

(A) The large number of stories about crows.

(B) The frequency with which crows are sighted.

(C) The amount of research that has been conducted on crows.

(D) The ease with which crows are identified.

**3. The word “comparably” in line 5 is closest in meaning to**

(A) interestingly      (B) similarly      (C) otherwise      (D) sometimes

**4. In line 6, the author mentions the endangered California condor as an example of a species that is**

(A) smaller than the crow

(B) easily identifiable

(C) featured in legends

(D) very rare

**5. The word “them” in line 10 refers to**

(A) crows      (B) subjects      (C) intentions

(D) researchers

**6. According to the second paragraph crows are poor subjects for field research for all of the following reasons EXCEPT:**

(A) They can successfully avoid observers.

(B) They are hard to distinguish from one another.

(C) They can be quite aggressive.

(D) They are difficult to catch.

**7. In the second paragraph, the author implies that using radio transmitters would allow a researcher who studies crows to**

(A) identify individual crows.

(B) follow flocks of crows over long distances.

(C) record the times when crows are most active.

(D) help crows that become sick or injured.

**8. According to the third paragraph, which of the following is true about crows?**

- (A) They seldom live in anyone place for very long.
- (B) They thrive in a wide variety of environments.**
- (C) They have marked preferences for certain kinds of foods.
- (D) They use up the resources in one area before moving to another.

**9. In line 19, the word “inclinations” is closest in meaning to**

- (A) tricks
- (B) opportunities
- (C) preferences**
- (D) experiences

**10. In lines 19-21, the author mentions a pet crow to illustrate which of the following?**

- (A) The clever ways that crows solve problems.**
- (B) The differences between pet crows and wild crows.
- (C) The ease with which crows can be tamed.
- (D) The affection that crows show to other creatures.

**11. Which of the following statements is supported by the passage?**

- (A) Crows have relatively long lives.
- (B) Crows have keen vision.
- (C) Crows are usually solitary.
- (D) Crows are very intelligent.**

### **Practice Test 189**

Life originated in the early seas less than a billion years after the Earth was formed.

Yet another three billion years were to pass before the first plants and animals appeared on the continents. Life's transition from the sea to the land was perhaps as much of an evolutionary challenge as was the genesis of life.

What forms of life were able to make such a **drastic** change in lifestyle? The traditional view of the first terrestrial organisms is based on megafossils — relatively large specimens of essentially whole plants and animals. Vascular plants, related to modern seed plants and ferns, left the first comprehensive megafossil record. Because of this, it has been commonly assumed that the sequence of terrestrialization reflected the evolution of modern terrestrial ecosystems.

In this view, primitive vascular plants first colonized the margins of continental waters, followed by animals that fed on the plants, and lastly by animals that preyed on the plant-eaters. Moreover, the megafossils suggest that terrestrial life appeared and diversified explosively near the boundary between the Silurian and the Devonian periods, a little more than 400 million years ago.

Recently, however, paleontologists have been taking a closer look at the sediments below this Silurian-Devonian geological boundary. It turns out that some fossils can be **extracted** from these sediments by putting the rocks in an acid bath.

The technique has uncovered new evidence from sediments that were deposited near the shores of the ancient oceans — plant microfossils and microscopic pieces of small animals. In many **instances** the specimens are less than one-tenth of a millimeter in diameter. Although **they** were **entombed** in the rocks for hundreds of millions of years, many of the fossils consist of the organic remains of the organism. These newly discovered fossils have not only revealed the existence of previously unknown organisms, but have also pushed back these dates for the invasion of land by multicellular organisms. Our views about the nature of the early plant and animal communities are now being revised. And with those revisions come new speculations about the first terrestrial life-forms.

1. The word "drastic" in line 5 is closest in meaning to

- (A) widespread      (B) radical      (C) progressive      (D) risky

2. According to the theory that the author calls "the traditional view," what was the first form of life to appear on land?

- (A) Bacteria      (B) Meat-eating animals  
(C) Plant-eating animals      (D) Vascular plants

3. According to the passage, what happened about 400 million years ago?

- (A) Many terrestrial life-forms died out.  
(B) New life-forms on land developed at a rapid rate.  
(C) The megafossils were destroyed by floods.  
(D) Life began to develop in the ancient seas.

4. The word "extracted" in line 18 is closest in meaning to

- (A) located      (B) preserved      (C) removed      (D) studied

5. What can be inferred from the passage about the fossils mentioned in lines 17-20 ?

- (A) They have not been helpful in understanding the evolution of terrestrial life.  
(B) They were found in approximately the same numbers as vascular plant fossils.  
(C) They are older than the megafossils.  
(D) They consist of modern life-forms.

6. The word "instances" in line 21 is closest in meaning to

- (A) methods      (B) processes      (C) cases      (D) reasons

7. The word "they" in line 22 refers to

- (A) rocks      (B) shores      (C) oceans      (D) specimens

8. The word "entombed" in line 22 is closest in meaning to

- (A) crushed      (B) trapped      (C) produced      (D) excavated

**9. Which of the following resulted from the discovery of microscopic fossils?**

(A) The time estimate for the first appearance of terrestrial life-forms was revised.

(B) Old techniques for analyzing fossils were found to have new uses.

(C) The origins of primitive sea life were explained.

(D) Assumptions about the locations of ancient seas were changed.

**10. With which of the following conclusions would the author probably agree?**

(A) The evolution of terrestrial life was as complicated as the origin of life itself.

(B) The discovery of microfossils supports the traditional view of how terrestrial life evolved.

(C) New species have appeared at the same rate over the course of the last 400 million years.

(D) The technology used by paleontologists is too primitive to make accurate determinations about ages of fossils.

### **Practice Test 190**

What we today call American folk art was, indeed, art of, by, and for ordinary, everyday "folks" who, with increasing prosperity and leisure, created a market for an of all kinds, and especially for portraits. Citizens of prosperous, essentially middle-class republics whether ancient Romans, seventeenth-century Dutch burghers, or nineteenth-century Americans have always shown a **marked** taste for portraiture. Starting in the late eighteenth century, the United States contained increasing numbers of such people, and of the artists who could meet their demands. The earliest American folk art portraits come, not surprisingly, from New England especially Connecticut and Massachusetts for **this** was a wealthy and populous

region and the center of a strong craft tradition. Within a few decades after the signing of the Declaration of Independence in 1776, the population was pushing westward, and portrait painters could be found at work in western New York, Ohio, Kentucky, Illinois, and Missouri. Midway through its first century as a nation, the United States's population had increased roughly five times, and eleven new states had been added to the original thirteen. During these years the demand for portraits grew and grew, eventually to be satisfied by the camera. In 1839 the daguerreotype was introduced to America, ushering in the age of photography, and within a generation the new invention put an end to the popularity of painted portraits. Once again an original portrait became a luxury, commissioned by the wealthy and executed by the professional. But in the heyday of portrait painting from the late eighteenth century until the 1850's anyone with a modicum of artistic ability could become a limner, as such a portraitist was called. Local craftspeople sign, coach, and house painters began to paint portraits as a profitable sideline; sometimes a talented man or woman who began by sketching family members gained a local reputation and was besieged with requests for portraits; artists found it worth their while to pack their paints, canvases, and brushes and to travel the countryside, often combining house decorating with portrait painting.

**1. In lines 4-5 the author mentions seventeenth-century Dutch burghers as an example of a group that**

(A) consisted mainly of self-taught artists.

**(B) appreciated portraits.**

(C) influenced American folk art.

(D) had little time for the arts.

**2. The word "marked" in line 5 is closest in meaning to**

**(A) pronounced**

(B) fortunate

(C) understandable

(D) mysterious

**3. According to the passage, where were many of the first American folk art portraits painted?**

- (A) In western New York (B) In Illinois and Missouri  
(C) In Connecticut and Massachusetts (D) In Ohio

**4. The word "this" in line 9 refers to**

- (A) a strong craft tradition. (B) American folk art.  
(C) New England. (D) western New York.

**5. How much did the population of the United States increase in the first fifty years following independence?**

- (A) It became three times larger.  
(B) It became five times larger.  
(C) It became eleven times larger.  
(D) It became thirteen times larger.

**6. The phrase "ushering in" in line 17 is closest in meaning to**

- (A) beginning (B) demanding (C) publishing (D) increasing

**7. The relationship between the daguerreotype (line 16) and the painted portrait is similar to the relationship between the automobile and the**

- (A) highway (B) driver  
(C) horse-drawn carriage (D) engine

**8. According to the passage, which of the following contributed to a decline in the demand for painted portraits?**

- (A) The lack of a strong craft tradition.  
(B) The westward migration of many painters.  
(C) The growing preference for landscape paintings.  
(D) The invention of the camera.

9. The word "executed" in line 22 is closest in meaning to

- (A) sold                      (B) requested                      (C) admired                      **(D) created**

10. The author implies that most limners (line 22)?

- (A) received instruction from traveling teachers.  
(B) were women.  
(C) were from wealthy families.  
**(D) had no formal art training.**

11. The word "sketching" in line 25 is closest in meaning to

- (A) drawing**                      (B) hiring  
(C) helping                      (D) discussing

12. Where in the passage does the author provide a definition?

- (A) Lines 3-6                      (B) Lines 8-10  
(C) Lines 13-15                      **(D) Lines 21-23**

13. The phrase "worth their while" in line 26 is closest in meaning to

- (A) essential                      (B) educational                      **(C) profitable**                      (D) pleasurable

### **Practice Test 191**

The preservation of embryos and juveniles is rare occurrence in the fossil record. The tiny, delicate skeletons are usually scattered by scavengers or destroyed by weathering before they can be fossilized. Ichthyosaurs had a higher chance of being preserved than did terrestrial creatures because, as marine animals, they tended to live in environments less subject to erosion. Still, their fossilization required a suite of factors: a slow rate of decay of soft tissues, little scavenging by other animals, a lack of swift currents and waves to jumble and carry away small bones, and fairly rapid burial. Given these factors, some areas have become a treasury of well-preserved ichthyosaur fossils.

The deposits at Holzmaden, Germany, present an interesting case for analysis. The ichthyosaur remains are found in black, bituminous marine shales deposited about

190 million years ago. Over the years, thousands of specimens of marine reptiles, fish, and invertebrates have been recovered from these rocks. The quality of preservation is **outstanding**, but what is even more impressive is the number of ichthyosaur fossils containing preserved embryos. Ichthyosaurs with embryos have been reported from 6 different levels of the shale in a small area around Holzmaden, suggesting that a specific **site** was used by large numbers of ichthyosaurs repeatedly over time. The embryos are quite advanced in their physical development; their paddles, for example, are already well formed. One specimen is even preserved in the birth canal. In addition, the shale contains the remains of many newborns that are between 20 and 30 inches long.

Why are there so many pregnant females and young at Holzmaden when **they** are so rare elsewhere? The quality of preservation is almost unmatched, and quarry operations factors do not **account for** the interesting question of how there came to be such a concentration of pregnant ichthyosaurs in a particular place very close to their time of giving birth.

**1. The passage supports which of the following conclusions?**

- (A) Some species of ichthyosaurs decayed more rapidly than other species.
- (B) Ichthyosaur newborns are smaller than other newborn marine reptiles.
- (C) Ichthyosaurs were more advanced than terrestrial creatures.
- (D) Ichthyosaurs may have gathered at Holzmaden to give birth.**

**2. The word "they" in line 2 refers to**

- (A) skeletons**      (B) scavengers      (C) creatures      (D) environments

**3. All of the following are mentioned as factors that encourage fossilization EXCEPT the**

- (A) speed of burial      (B) conditions of the water
- (C) rate at which soft tissues decay      **(D) cause of death of the animal.**

**4. Which of the following is true of the fossil deposits discussed in the passage?**

(A) They include examples of newly discovered species.

**(B) They contain large numbers of well-preserved specimens**

(C) They are older than fossils found in other places

(D) They have been analyzed more carefully than other fossils.

**5. The word "outstanding" in line 11 is closest in meaning to**

(A) extensive

(B) surprising

(C) vertical

**(D) excellent**

**6. The word "site" in line 13 is closest in meaning to**

(A) example

**(B) location**

(C) development

(D) characteristic

**7. Why does the author mention the specimen preserved in the birth canal (line 15)?**

**(A) To illustrate that the embryo fossils are quite advanced in their development.**

(B) To explain why the fossils are well preserved.

(C) To indicate how the ichthyosaurs died.

(D) To prove that ichthyosaurs are marine animals.

**8. The word "they" in line 17 refers to**

**(A) pregnant females and young**

(B) quarry operations

(C) the value of the fossils

(D) these factors

**9. The phrase "account for" in line 18 is closest in meaning to**

(A) record

(B) describe

(C) equal

**(D) explain**

**10. Which of the following best expresses the relationship between the first and second paragraphs?**

(A) The first paragraph describes a place while the second paragraph describes a field of study.

(B) The first paragraph defines the terms that are used in the second paragraph.

(C) The second paragraph describes a specific instance of the general topic discussed in the first paragraph.

(D) The second paragraph presents information that contrasts with the information given in the first paragraph.

**11. Where in the passage does the author mention the variety of fossils found at Holzmaden?**

(A) Line 8

(B) Lines 9-10

(C) Lines 14-15

(D) Lines 17-19

### **Practice Test 192**

The first Europeans in the Delaware Valley, a region located near the Atlantic Coast of North America, were Scandinavians. They came to the short-lived colony known as New Sweden, founded in 1638. Loose organization and local autonomy fostered a cultural fusion between native and settler cultures that proved one of the most notable and least understood developments of early North American history. The Native Americans were both farmers and hunters; Native American women farmed gardens of corn, beans, and squash, while Native American men hunted for furs, hides, and meat. Such a gender division of labor was much like that practiced by Scandinavian settlers. In the harsh environment of northern Europe, Scandinavian women had been accustomed to practicing forms of shifting cultivation, and they immediately understood Native American horticulture. Colonial women of the

Delaware valley quickly adopted the crops of the Native American women, while Native American women welcomed European tools, such as metal hoes, and farm animals, such as pigs and chickens.

Similarly, Scandinavian men quickly adapted to hunting in North America, In France and England, unlike Scandinavia, hunting had been long reserved for the nobility, and so few French and English settlers had much experience in handling firearms or understanding the patterns of game animals. But Scandinavian men were familiar with hunting and receptive to learning the hunting methods of the local Native Americans. In turn Native Americans readily incorporated European steel knives, firearms, and linen hunting shirts into their hunting routines.

The most common symbol of pioneer North America, the log cabin, emerged in the Delaware Valley, and ought to serve as a symbol of this composite culture. Construction with logs was a tradition brought to North America by Finnish settlers of New Sweden, It was quickly picked up by other settlers, for with the resources of the American woods, a few tools, and a little training, several men could erect a rough shelter in a day, or a solid house in a week, What is truly fascinating is that Native Americans quickly learned these construction techniques and probably did as much as colonists to spread the practice of log construction across the frontiers of colonial North America.

**1. Which one of the following questions does the passage answer?**

(A) What role did Native American men play in teaching their agricultural methods to Scandinavian settlers?

**(B) How did the interaction between Native Americans and Scandinavian settlers benefit both groups?**

(C) What hardships did the Scandinavian women settlers experience in North

America?

(D) What caused a rivalry between the English and Scandinavian settlers in North America?

**2. The word "fostered" in line 4 is closest in meaning to**

- (A) encouraged (B) predated  
(C) predicted (D) rejected

**3. In line 5, the word "notable" is closest in meaning to**

- (A) social (B) predictable (C) remarkable (D) early

**4. According to the passage, the Native American and Scandinavian cultures of the Delaware Valley initially had all of the following in common EXCEPT**

- (A) loose organization  
(B) farming experience  
(C) metal fanning tools  
(D) local autonomy

**5. According to the passage, why were Scandinavian women easily able to understand Native American horticulture?**

- (A) They had prior knowledge of most Native American plants.  
(B) They had used similar cultivation practices in Scandinavia.  
(C) They were helped by Native American and colonial men.  
(D) They were able to use Native American farming tools.

**6. Why does the author contrast English and French settlers with Scandinavian settlers in lines 14-18 ?**

- (A) To suggest that they learned at least some hunting skills from each other  
(B) To illustrate that it is hard to decide who established the earliest North American

hunting techniques

(C) To explain why the Scandinavians were able to adopt Native American hunting techniques more easily

(D) To show how Native Americans might have acquired steel knives and firearms

**7. What does the author imply about French and English settlers?**

(A) Most of them did not come from the nobility.

(B) Most of them hunted with advanced firearms.

(C) They taught hunting skills to Scandinavian settlers.

(D) They provided Native Americans with linen hunting shirts.

**8. In Line 19, the phrase "receptive to" is closest in meaning to**

(A) suspicious of

(B) ready for

(C) dependent on

(D) new to

**9. The word "emerged" in line 22 is closest in meaning to**

(A) enlarged

(B) disappeared

(C) remained

(D) developed

**10. Why does the author state in lines 18-19 that the log cabin ought to serve as a symbol?**

(A) It could be built by using the available resources of the Delaware Valley.

(B) It was built across the frontiers of colonial North America.

(C) It uses a construction technique brought to North America by Scandinavian settlers.

(D) It is a good example of the cultural mixing of native and settler cultures.

## Practice Test 193

Europa is the smallest of planet Jupiter's four largest moons and the second moon out from Jupiter. Until 1979, it was just another astronomy textbook statistic. Then came the close-up images obtained by the exploratory spacecraft Voyager 2, and within days, Europa was transformed-in our perception, at least-into one of the solar system's most **intriguing** worlds. The biggest initial surprise was the almost total lack of detail, especially from far away. Even at close range, the only visible features are thin, kinked brown lines resembling **cracks in an eggshell**. And **this analogy is not far off the mark**.

The surface of Europa is almost pure water ice, but a nearly complete absence of craters indicates that Europa's surface ice resembles Earth's Antarctic ice cap. The eggshell analogy may be quite accurate since the ice could be as little as a few kilometers thick—a true shell around what is likely a subsurface liquid ocean that, in turn, encases a rocky core. The interior of Europa has been kept warm over the eons by tidal forces generated by the varying gravitational tugs of the other big moons as they wheel around Jupiter. The tides on Europa pull and relax in an **endless** cycle. The resulting internal heat keeps what would otherwise be ice melted almost to the surface. The cracklike marks on Europa's icy face appear to be fractures where water or slush oozes from below.

Soon after Voyager 2's encounter with Jupiter in 1979, when the best images of Europa were obtained, researchers advanced the startling idea that Europa's subsurface ocean might harbor life. Life processes could have begun when Jupiter was releasing a vast store of internal heat. Jupiter's early heat was produced by the compression of the material forming the giant planet. Just as the Sun is far less radiant today than the primal Sun, so the internal heat generated by Jupiter is minor compared to its former intensity. During this warm phase, some 4.6 billion years ago, Europa's ocean may have been liquid right to the surface, making it a crucible for life.

**1. What does the passage mainly discuss?**

- (A) The effect of the tides on Europa's interior.
- (B) Temperature variations on Jupiter's moons.
- (C) Discoveries leading to a theory about one of Jupiter's moons.**
- (D) Techniques used by Voyager 2 to obtain close-up images.

**2. The word "intriguing" in line 4 is closest in meaning to**

- (A) changing
- (B) perfect
- (C) visible
- (D) fascinating**

**3. In line 6, the author mentions "cracks in an eggshell" in order to help readers**

- (A) visualize Europa as scientists saw it in the Voyager 2 images.**
- (B) appreciate the extensive and detailed information available by viewing Europa from far away.
- (C) understand the relationship of Europa to the solar system.
- (D) recognize the similarity of Europa to Jupiter's other moons.

**4. It can be inferred from the passage that astronomy textbooks prior to 1979**

- (A) provided many contradictory statistics about Europa.
- (B) considered Europa the most important of Jupiter's moons.
- (C) did not emphasize Europa because little information of interest was available.**
- (D) did not mention Europa because it had not yet been discovered.

5. what does the author mean by stating in line 6 that “this analogy is not far off the mark”?

- (A) The definition is not precise.
- (B) The discussion lacks necessary information.
- (C) The differences are probably significant.
- (D) The comparison is quite appropriate.**

6. It can be inferred from the passage that Europa and Antarctica have in common which of the following?

- (A) Both appear to have a surface with many craters.
- (B) Both may have water beneath a thin, hard surface.**
- (C) Both have an ice can that is melting rapidly.
- (D) Both have areas encased by a rocky exterior.

7. The word “endless” in line 12 is closest in meaning to

- (A) new
- (B) final
- (C) temporary
- (D) continuous**

8. According to the passage, what is the effect of Jupiter’s other large moons on Europa?

- (A) They prevent Europa’s subsurface waters from freezing.**
- (B) They prevent tides that could damage Europa’s surface.
- (C) They produce the very hard layer of ice that characterizes Europa.
- (D) They assure that the gravitational pull on Europa is maintained at a steady level.

**9. According to the passage, what is believed to cause the thin lines seen on Europa's surface?**

- (A) A long period of extremely high tides.
- (B) Water breaking through from beneath the surface ice.**
- (C) The continuous pressure of slush on top of the ice.
- (D) Heat generated by the hot rocky core.

**10 The word "it" in line 21 refers to**

- (A) internal heat
- (B) warm phase
- (C) Europa's ocean**
- (D) surface

### **Practice Test 194**

Native Americans probably arrived from Asia in successive waves over several millennia, crossing a plain hundreds of miles wide that now lies inundated by 160 feet of water released by melting glaciers. For several periods of time, the first beginning around 60,000 B.C. and the last ending around 7,000 B.C., this land bridge was open. The first people traveled in the dusty trails of the animals they hunted. They brought with them not only their families, weapons, and tools but also a broad metaphysical understanding, sprung from dreams and visions and articulated in myth and song, which complemented their scientific and historical knowledge of the lives of animals and of people. All this they shaped in a variety of languages, bringing into being oral literatures of power and beauty.

Contemporary readers, forgetting the origins of western epic, lyric, and dramatic forms, **are easily disposed** to think of “literature” only as something written. But on reflection it becomes clear that the more critically useful as well as the more frequently employed sense of the term concerns the artfulness of the verbal creation, not its mode of presentation. **Ultimately**, literature is aesthetically valued, regardless of language, culture, or mode of presentation, because some significant verbal achievement results from the struggle in words between tradition and talent. Verbal art has the ability to shape out a **compelling** inner vision in some skillfully crafted public verbal form.

Of course, the differences between the written and oral modes of expression are not without consequences for an understanding of Native American literature. The essential difference is that a speech event is an evolving communication, an “emergent form,” the shape, functions, and aesthetic values of which become more clearly realized over the course of the performance. In performing verbal art, the performer assumes responsibility for the manner as well as the content of the performance, while the audience assumes the responsibility for evaluating the performer’s competence in both areas. It is this intense mutual engagement that elicits the display of skill and shapes the emerging performance. Where written literature provides us with a tradition of texts, oral literature offers a tradition of performances.

**1. According to the passage, why did the first people who came to North America leave their homeland?**

- (A) They were hoping to find a better climate.
- (B) They were seeking freedom.
- (C) They were following instructions given in a dream.

(D) They were looking for food.

2. The phrase “are easily disposed” in line 9 is closest in meaning to

(A) demonstrate reluctance

(B) readily encourage others

(C) have a tendency

(D) often fail

3. The word “Ultimately” in line 12 is closest in meaning to

(A) frequently

(B) normally

(C) whenever possible

(D) in the end

4. The word “compelling” in line 15 is closest in meaning to

(A) joyous

(B) intricate

(C) competing

(D) forceful

5. What is the main point of the second paragraph?

(A) Public performance is essential to verbal art.

(B) Oral narratives are a valid form of literature.

(C) Native Americans have a strong oral tradition in art.

(D) The production of literature provides employment for many artists.

6. What can be inferred about the nature of the Native American literature discussed in the passage?

(A) It reflects historical and contemporary life in Asia.

(B) Its main focus is on daily activities.

(C) It is based primarily on scientific knowledge.

(D) It is reshaped each time it is experienced.

**7. According to the passage, what responsibility does the audience of a verbal art performance have ?**

(A) They provide financial support for performances.

**(B) They judge the quality of the content and presentation.**

(C) They participate in the performance by chanting responses.

(D) They determine the length of the performance by requesting a continuation.

**8. Which of the following is NOT true of the Native American literature discussed in the passage?**

(A) It involves acting.

(B) It has ancient origins.

**(C) It has a set form.**

(D) It expresses an inner vision.

**9. What can be inferred from the passage about the difference between written and oral literature?**

(A) Written literature reflects social values better than oral literature does.

**(B) Written literature involves less interaction between audience and creator during the creative progress than oral literature does.**

(C) Written literature usually is not based on historical events, whereas oral literature is.

(D) Written literature is not as highly respected as oral literature is.

**10. What is the author's attitude toward Native American literature?**

**(A) Admiring of its form**

(B) Critical of the cost of its production

(C) Amused by its content

(D) Skeptical about its origins

## Practice Test 195

The atmosphere that originally surrounded Earth was probably much different from the air we breathe today. Earth's first atmosphere (some 4.6 billion years ago) was most likely hydrogen and helium--the two most abundant gasses found in the universe--as well as hydrogen compounds, such as methane and ammonia. Most scientists feel that this early atmosphere escaped into space from the Earth's hot surface.

A second, more dense atmosphere, however, gradually **enveloped** Earth as gasses from molten rocks within its hot interior escaped through volcanoes and steam vents. We assume that volcanoes spewed out the same gasses then as **they** do today: mostly water vapor (about 90 percent), carbon dioxide (about ten percent), and up to a few percent nitrogen. These same gasses probably created Earth's second atmosphere.

As millions of years passed, the constant outpouring of gasses from the hot interior--known as outgassing -- provided a rich supply of water vapor, which formed into clouds. Rain fell upon Earth for many thousands of years, forming the rivers, lakes, and oceans of the world. During this time, large amounts of carbon dioxide were dissolved in the oceans. Through chemical and biological processes, much of the carbon dioxide became locked up in carbon sedimentary rocks, such as limestone. With much of the water vapor already condensed into water and the concentration of carbon dioxide dwindling, the atmosphere **gradually** became rich nitrogen.

It appears that oxygen, the second most abundant gas in today's atmosphere, probably began an extremely slow increase in concentration as energetic rays from the sun split water vapor into hydrogen and oxygen during a process called photodissociation. The hydrogen, being lighter, probably rose and escaped into space, while the oxygen remained in the atmosphere.

This slow increase in oxygen may have provided enough of this gas for primitive plants to evolve, perhaps two to three billion years ago. **Or** the plants may have evolved in an almost oxygen-free (anaerobic) environment. **At any rate**, plant growth greatly enriched our atmosphere with oxygen. The reason for this enrichment is that plants, in the presence of sunlight, process carbon dioxide and water to produce oxygen.

**1. What is the main idea of the passage?**

- (A) The original atmosphere on Earth was unstable.
- (B) The atmosphere on Earth has changed over time.**
- (C) Hot underground gasses created clouds, which formed the Earth's atmosphere.
- (D) Plant growth depended on oxygen in the Earth's atmosphere.

**2. The word "enveloped" in line 5 is closest in meaning to**

- (A) surrounded**
- (B) changed
- (C) escaped
- (D) characterized

**3. The word "they" in line 7 refers to**

- (A) gasses
- (B) volcanoes**
- (C) steam vents
- (D) rocks

**4. According to the passage, outgassing eventually led to all of the following EXCEPT**

- (A) increases in the carbon dioxide content of sedimentary rocks.
- (B) the formation of bodies of water.
- (C) decreases in the level of nitrogen.**
- (D) the formation of clouds.

**5. The word "gradually" in line 14 is closest in meaning to**

- (A) accidentally
- (B) quickly
- (C) in the end
- (D) by degrees**

6. The passage suggests that oxygen remained in the atmosphere because

(A) it was caused by outgassing

(B) it was heavier than hydrogen

(C) hydrogen became trapped in limestone

(D) rays from the sun created equal amounts of hydrogen and oxygen

7. The author uses the word "Or" in line 20 to

(A) criticize the previous suggestion

(B) provide unrelated information

(C) propose a similar idea

(D) suggest an alternative

8. The phrase "At any rate" in line 21 is closest in meaning to

(A) regardless

(B) in addition

(C) although unlikely

(D) fortunately

9. The author organizes the discussion of the Earth's atmosphere in terms of the

(A) role of volcanoes in its formation

(B) occur in which changes

(C) time it took for the Earth's surface: to cool and nitrogen to appear

(D) chemical and physical features of gasses

10. Which of the following does the passage mention as necessary for both the production of oxygen by photodissociation and the production of oxygen by plants?

(A) Water

(B) Hydrogen

(C) Carbon dioxide

(D) Nitrogen

## Practice Test 196

Architecture has been characterized by W. R. Dalzell as the “indispensable art,” and **rightly so**. Inevitably, the practical functions that shelters are designed to fulfill play a strong role in determining their appearance and thus, in part, their artistic character. So do the methods of construction available and practicable at any given moment. The **strikingly new forms of architecture** that appeared in the late nineteenth and twentieth centuries were built to meet the needs of industry and of commerce based on industry, in a society whose essential character and internal relationships had been sharply transformed by the Industrial Revolution. About the middle of the nineteenth century, mechanized industrial production began to demand **large, well-lighted interiors** in which manufacturing could **be carried on**. The administration of giant industrial and commercial concerns required office buildings of unprecedented size, containing suites of offices easily accessible to employees and customers. The marketing of industrial products **necessitated** large-scale storage spaces, and enormous shops selling under one roof a wide variety of items. Industrial and commercial pressures drew increasing populations to urban centers, and traditional housing was no longer adequate to contain **them**. Mechanized transportation of industrial products and industrial and business personnel was essential. Leisure-time entertainment and cultural activities for the vast new urban populations required still a different kind of structure. **Hence**, the characteristic new architectural forms of the late nineteenth and twentieth centuries have been the factory, the multistory office building, the warehouse, the department store, the apartment house, the railway station, the large theater, and the gigantic sports stadium. None of these could have been built on the desired scale by traditional construction methods.

**1. What is the main idea of the passage?**

- (A) Various types of traditional building materials strongly influenced modern architectural design.
- (B) Changing architectural styles affected the character of cities.
- (C) New architectural forms evolved in response to the changing needs of society.
- (D) Technological advances affected conventional methods of building construction.**

**2. The author uses the expression “rightly so” in line 1 in order to**

- (A) introduce an opinion that differs from that of W. R. Dalzell.
- (B) provide examples of architecture that are indispensable.
- (C) show agreement with the way W. R. Dalzell has described architecture.**
- (D) indicate that architectural design must reflect artistic qualities.

**3. The word “strikingly” in line 4 is closest in meaning to**

- (A) aggressively
- (B) specifically
- (C) noticeably**
- (D) occasionally

**4. According to the passage, which of the following motivated the “new forms of architecture” mentioned in line 4 ?**

- (A) The increased wealth of citizens.
- (B) The Industrial Revolution.**
- (C) Competitive international trade.
- (D) Changing ideas about artistic merit.

5. It can be inferred that the demand for “large, well-lighted interiors” mentioned in line 8 resulted in the construction of:

(A) offices (B) factories (C) warehouses (D) department stores

6. The phrase “carried on” in line 8 is closest in meaning to:

(A) conducted (B) supervised

(C) moved about (D) improved

7. The word “necessitated” in line 10 is closest in meaning to

(A) identified (B) replaced (C) required (D) supplied

8. It can be inferred from the passage that all of the following occurred as a result of the Industrial Revolution EXCEPT

(A) considerable societal changes

(B) office buildings larger than any ever built before

(C) storage and marketing of industrial products

(D) a decrease in leisure activities

9. The word “them” in line 13 refers to

(A) items (B) pressures (C) populations (D) centers

10. According to the passage, which of the following is true about the effect of the Industrial Revolution on transportation systems?

(A) Traditional methods of transportation were adequate for workers to get to their jobs.

(B) Faster, more efficient methods of transportation were required for the production and distribution of goods.

(C) Manufacturers could not produce sufficiently large quantities of goods to support the costs of railroad transportation.

(D) Only the most essential products required new, mechanized methods of transportation.

11. The word “Hence” in line 15 is closest in meaning to

(A) moreover

(B) nevertheless

(C) in contrast

(D) for these reasons

### **Practice Test 197**

One of the most important social developments that helped to make possible a shift in thinking about the role of public education was the effect of the baby boom of the 1950's and 1960's on the schools. In the 1920's, but especially in the Depression conditions of the 1930's, the United States experienced a declining birth rate-every thousand women aged fifteen to forty -four gave birth to about 118 live children in 1920, 89.2 in 1930, 75.8 in 1936, and 80 in 1940. With the growing prosperity brought on by the Second World War and the economic boom that followed it, young people married and established households earlier and began to raise larger families than had their predecessors during the Depression. Birth rates rose to 102 per thousand in 1946, 106.2 in 1950 and 118 in 1955. Although economics was probably the most important determinant, it is not the only explanation for the baby boom. The increased value placed on the idea of the family also helps to explain this rise in birth rates. The baby boomers began streaming into the first grade by the mid-1940's and became a flood by 1950. The public school system suddenly found itself overtaxed. While the number of schoolchildren rose because of wartime and postwar conditions, these same conditions made the schools even less prepared to cope with the flood. The wartime economy meant that few new schools were built between 1940 and 1945. Moreover, during the war and in the boom times that followed large numbers of teachers left their profession for better -paying jobs elsewhere in the economy.

Therefore, in the 1950's and 1960's, the baby boom hit an antiquated and **inadequate** school system. Consequently, the "**custodial rhetoric**" of the 1930's and early 1940's no longer made sense; that is, keeping youths aged sixteen and older out of the labor market by keeping them in school could no longer be a high priority for an institution unable to find space and staff to teach younger children aged five to sixteen. With the baby boom, the focus of educators and of laymen interested in education **inevitably** turned toward the lower grades and back to basic academic skills and discipline. The system no longer had much interest in offering nontraditional new and extra services to older youths.

**1. what does the passage mainly discuss?**

- (A) the teaching profession during the baby boom
- (B) birth rates in United States in the 1930's and 1940's
- (C) the impact of the baby boom on public education**
- (D) the role of the family in the 1950's and 1960's

**2. The word "it" in line 8 refer to**

- (A) 1995
- (B) economics**
- (C) the baby boom
- (D) value

**3. The word "overtaxed" in the 11 is closest in meaning to**

- (A) well prepared
- (B) plentifully supplied
- (C) heavily burdened**
- (D) charged too much

**4. The public schools of the 1950's and 1960's faced all of the following problems**

**EXCEPT**

- (A) a declining number of students**
- (B) old-fashioned facilities
- (C) a shortage of teachers

(D) an inadequate number of school buildings

**5. According to the passage, why did teachers leave the teaching profession after the outbreak of the war?**

- (A) They needed to be retrained.
- (B) They were dissatisfied with the curriculum.
- (C) Other jobs provided higher salaries.**
- (D) Teaching positions were scarce.

**6. The word "inadequate" in line 16 is closest in meaning to**

- (A) deficient**
- (B) expanded
- (C) innovative
- (D) specialized

**7. The "custodial rhetoric" mentioned in line 17 refers to**

- (A) raising a family.
- (B) keeping older individuals in school.**
- (C) running an orderly household.
- (D) maintaining discipline in the classroom.

**8. The word "inevitably" in line 20 is closest in meaning to**

- (A) unwillingly
- (B) impartially
- (C) irrationally
- (D) unavoidably**

**9. Where in the passage does the author refer to the attitude of Americans toward raising a family in the 1950's and 1960's?**

- (A) Lines 1-2
- (B) Lines 6-7**
- (C) Lines 11-12
- (D) Lines 14-15

**10. Which of the following best characterizes the organization of the passage?**

- (A) The second paragraph presents the effect of circumstances described in the first paragraph.**

- (B) The second paragraph provides a fictional account to illustrate a problem presented in the first paragraph.
- (C) The second paragraph argues against a point made in the first paragraph.
- (D) The second paragraph introduces a problem not mentioned in the first paragraph.

### **Practice Test 198**

What geologists call the Basin and Range Province in the United States roughly coincides in its northern portions with the geographic province known as the Great Basin. The Great Basin is hemmed in on the west by the Sierra Nevada and on the east by the Rocky Mountains; it has no outlet to the sea. The **prevailing** winds in the Great Basin are from the west. Warm, moist air from the Pacific Ocean is forced upward as **it** crosses the Sierra Nevada. At the higher altitudes it cools and the moisture it carries is precipitated as rain or snow on the western slopes of the mountains. That which reaches the Basin is air wrung dry of moisture. What little water falls there as rain or snow, mostly in the winter months, evaporates on the broad, flat desert floors. It is, therefore, an environment in which organisms battle for survival. Along the rare watercourses, cottonwoods and willows eke out a sparse existence. In the upland ranges, pinon pines and junipers struggle to hold their own. But the Great Basin has not always been so arid. Many of its dry, closed depressions were once filled with water. Owens Valley, Panamint Valley, and Death Valley were once a string of interconnected lakes. The two largest of the ancient lakes of the Great Basin were Lake Lahontan and Lake Bonneville. The Great Salt Lake is all that remains of the latter, and Pyramid Lake is one of the last briny remnants of **the former**.

There seem to have been several periods within the last tens of thousands of years

when water **accumulated** in these basins. The rise and fall of the lakes were undoubtedly linked to the advances and retreats of the great ice sheets that covered much of the northern part of the North American continent during those times. Climatic changes during the Ice ages sometimes brought cooler, wetter weather to midlatitude deserts worldwide, including those of the Great Basin. The broken valleys of the Great Basin provided ready receptacles for this moisture.

**1. What is the geographical relationship between the Basin and Range Province and the Great Basin?**

- (A) The Great Basin is west of the Basin and Range Province.
- (B) The Great Basin is larger than the Basin and Range Province.
- (C) The Great Basin is in the northern part of the Basin and Range Province.**
- (D) The Great Basin is mountainous; the Basin and Range Province is flat desert.

**2. According to the passage, what does the great Basin lack?**

- (A) Snow
- (B) Dry air
- (C) Winds from the west
- (D) Access to the ocean**

**3. The word "prevailing" in line 3 is closest in meaning to**

- (A) most frequent**
- (B) occasional
- (C) gentle
- (D) most dangerous

**4. It can be inferred that the climate in the Great Basin is dry because**

- (A) the weather patterns are so turbulent.
- (B) the altitude prevents precipitation.
- (C) the winds are not strong enough to carry moisture.
- (D) precipitation falls in the nearby mountains.**

**5. The word "it" in line 4 refers to**

- (A) Pacific Ocean
- (B) air**
- (C) west
- (D) the Great Basin

**6. Why does the author mention cottonwoods and willows in line 8-9?**

(A) To demonstrate that certain trees require a lot of water

**(B) To give examples of trees that are able to survive in a difficult environment**

(C) To show the beauty of the landscape of the Great Basin

(D) To assert that there are more living organisms in the Great Basin than there used to be

**7. Why does the author mention Owens Valley, Panamint Valley, and Death Valley in the second paragraph?**

(A) To explain their geographical formation.

**(B) To give examples of depressions that once contained water.**

(C) To compare the characteristics of the valleys with the characteristics of the lakes.

(D) To explain what the Great Basin is like today.

**8. The words "the former" in line 14 refer to**

(A) Lake Bonneville

**(B) Lake Lahontan**

(C) The Great Salt Lake

(D) Pyramid Lake

**9. The word "accumulated" in line 15 is closest in meaning to**

(A) dried

(B) flooded

**(C) collected**

(D) evaporated

**10. According to the passage, the Ice Ages often brought about**

(A) desert formation

(B) warmer climates

(C) broken valleys

**(D) wetter weather**

## **Practice Test 199**

There are many theories about the beginning of drama in ancient Greece. The one most widely accepted today is based on the assumption that drama evolved from ritual. The argument for this view goes as follows. In the beginning, human beings viewed the natural forces of the world, even the seasonal changes, as unpredictable, and **they** sought through various means, to control these unknown and feared powers. Those measures which appeared to bring the desired results were then retained and repeated until they hardened into fixed rituals. Eventually stories arose which explained or veiled the mysteries of the rites. As time passed some rituals were abandoned, but the stories, later called myths, persisted and provided material for art and drama.

Those who believe that drama evolved out of ritual also argue that those rites contained the seed of theater because music, dance, masks, and costumes were almost always used. Furthermore, a suitable site had to be provided for performances, and when the entire community did not participate, a clear division was usually made between the "acting area" and the "auditorium." In addition, there were performers, and since **considerable** importance was attached to avoiding mistakes in the **enactment** of rites, religious leaders usually assumed that task. Wearing masks and costumes, **they** often impersonated other people, animals, or supernatural beings, and mimed the desired effect - success in hunt or battle, the coming rain, the revival of the Sun - as an actor might. Eventually such dramatic representations were separated from religious activities.

Another theory traces the theater's origin from the human interest in storytelling. According to this view, tales (about the hunt, war, or other feats) are gradually elaborated, at first through the use of impersonation, action, and dialogue by a narrator and then through the assumption of each of the roles by a different person.

A closely related theory traces theater to those dances that are primarily rhythmical and gymnastic or that are imitations of animal movements and sounds.

**1. What does the passage many discuss?**

- (A) The origins of theater
- (B) The role of ritual in modern dance
- (C) The importance of storytelling
- (D) The variety of early religious activities.

**2. The word "they" in line 4 refers to**

- (A) seasonal changes
- (B) natural forces
- (C) theories
- (D) human beings

**3. What aspect of drama does the author discuss in the first paragraph?**

- (A) The reason drama is often unpredictable.
- (B) The seasons in which dramas were performed.
- (C) The connection between myths and dramatic plots.
- (D) The importance of costumes in early drama.

**4. Which of the following is NOT mentioned as a common element of theater and ritual?**

- (A) Dance
- (B) Costumes
- (C) Music
- (D) Magic

**5. The word "considerable" in line 13 is closest in meaning to**

- (A) thoughtful
- (B) substantial
- (C) relational
- (D) ceremonial

**6. The word "enactment" in line 13 is closest in meaning to**

- (A) establishment
- (B) performance
- (C) authorization
- (D) season

7. The word "they" in line 14 refers to

- (A) mistakes
- (B) costumes
- (C) animals
- (D) performers

8. According to the passage, what is the main difference between ritual and drama?

- (A) Ritual uses music whereas drama does not.
- (B) Ritual is shorter than drama.
- (C) Ritual requires fewer performers than drama.
- (D) Ritual has a religious purpose and drama does not.

9. The passage supports which of the following statements?

- (A) No one really knows how the theater began
- (B) Myths are no longer represented dramatically.
- (C) Storytelling is an important part of dance
- (D) Dramatic activities require the use of costumes.

10. Where in the passage does the author discuss the separation of the stage and the audience?

- (A) Lines 4-6
- (B) Lines 6-7
- (C) Lines 11-12
- (D) Lines 15-17

### Practice Test 200

Around the year 1500, hunting people occupied the entire northern third of North America. They lived well from the animals with whom they shared these lands. Hunters of sea mammals had colonized the Arctic coasts of Canada and Greenland between four and five thousand years before. Land-hunting people had lived

throughout much of the northern interior for at least 12,000 years. Northern North America is part of a larger circumpolar ecological **domain** that continues across the narrow Bering Strait into Siberia and northern Europe. The overall circumpolar environment in the 1500's was not very different from the environment of the present. This vast landmass had a continental climate and was dominated by cold arctic air throughout a long winter and spring season. Summer temperature ranged from near freezing to the mid-20's Celsius, while winter temperature were often as low as 40 degrees below zero Celsius. Geographers divide the overall circumpolar domain into two zones, the Arctic and, below it, the Subarctic. They refer to the landforms of these areas as tundra and taiga, respectively. Temperatures in the northern lands were below freezing for eight or nine months of the year. Subsurface soil in the Arctic's tundra remained permanently frozen. Even when summer temperatures were above freezing and the top inches of earth became **saturated** with water, the soil below remained frozen into a permafrost, as hard as rock. When water flowed upon the surface of permanently frozen tundra, it made overland travel extremely difficult. Summer travel in the boggy lands, or muskeg country, of the Subarctic's taiga was also slow and **arduous**. Tracking animals was more difficult than it was during the winter when the swampy ground was frozen solid and covered with snow. In both tundra and taiga, hordes of mosquitoes and biting flies bred in the **standing** pools of water. Clothing lost its thermal efficiency when it became

damp. Northern people looked forward to the turn of the season to bring the easier traveling conditions associated with cold weather. In the Arctic, they could haul food and supplies by dogsled while in the Subarctic, people could travel quickly and efficiently by snowshoes and toboggan.

**1. What does the passage mainly discuss?**

(A) The hunting people of North America.

**(B) The circumpolar environment of the sixteenth century.**

(C) Animals that inhabit the Arctic coast.

(D) The geography of Canada and Greenland.

**2. The word “domain” in line 5 is closest in meaning to**

(A) temperature

(B) period

**(C) region**

(D) process

**3. Which of the following terms is used to describe the landforms of the Arctic region?**

(A) Subarctic

(B) Taiga

**(C) Tundra**

(D) Muskeg

**4. For how many months of the year were temperatures below freezing in the circumpolar region?**

(A) 4-5 months

(B) 6 months

**(C) 8-9 months**

(D) 12 months

**5. The word “saturated” in line 15 is closest in meaning to**

(A) enriched

(B) dissolved

(C) removed

**(D) soaked**

6. The word “arduous” in line 18 is closest in meaning to

- (A) humid (B) difficult  
(C) indirect (D) unnecessary

7. The word “standing” in line 20 is closest in meaning to

- (A) not flowing (B) very deep  
(C) numerous (D) contaminated

8. All of the following are mentioned as having made travel in the summer difficult EXCEPT

- (A) insects (B) wet clothing  
(C) swampy lands (D) lack of supplies

9. The subsurface soil in the Arctic's tundra is most comparable to which of the following?

- (A) Cement (B) A bog (C) A pond (D) Sand

10. Where in the passage does the author mention a means by which people traveled in the northern lands?

- (A) Lines 2-4 (B) Lines 6-7  
(C) Lines 20-21 (D) Lines 27-29

## Practice Test 201

In science, a theory is a reasonable explanation of observed events that are **related**. A theory often involves an imaginary model that helps scientists picture the way an observed event could be produced. A good example of **this** is found in the kinetic molecular theory, in which gases are pictured as being made up of many small particles that are in constant motion. A useful theory, in addition to explaining past observation, helps to predict events that have not as yet been observed. After a theory has been publicized, scientists design experiments to test the theory. If observations confirm the scientists' predictions, the theory is **supported**. If observations do not confirm the predictions, the scientists must search further. There may be a fault in the experiment, or the theory may have to be revised or rejected. Science involves imagination and creative thinking as well as collecting information and performing experiments. Facts by themselves are not science. As the mathematician Jules Henri Poincare said: "Science is built with facts just as a house is built with bricks, but a collection of facts cannot be called science any more than a pile of bricks can be called a house." Most scientists start an investigation by finding out what other scientists have learned about a particular problem. After known facts have been gathered, the scientist comes to the part of the investigation that requires considerable imagination. Possible solutions to the problem are formulated. These possible solutions are called hypotheses. In a way, any hypothesis is a leap into the unknown. It extends the scientist's thinking beyond the known facts. The scientist plans experiments, performs calculations, and makes observations to test hypotheses. For without hypotheses, further investigation lacks purpose and direction. When hypotheses are confirmed, they are incorporated into theories.

**1. Which of the following is the main subject of the passage?**

(A) The importance of models in scientific theories.

**(B) The place of theory and hypothesis in scientific investigation.**

(C) The sorts of facts that scientists find most interesting.

(D) The ways that scientists perform different types of experiments.

**2. The word "related" in line 1 is closest in meaning to**

**(A) connected**

(B) described

(C) completed

(D) identified

**3. The word "this" in line 3 refers to**

(A) a good example

**(B) an imaginary model**

(C) the kinetic molecular theory

(D) an observed event

**4. According to the second paragraph, a useful theory is one that helps scientists to**

(A) find errors in past experiments

**(B) make predictions**

(C) observe events

(D) publicize new findings

**5. The word "supported" in line 7 is closest in meaning to**

(A) finished

(B) adjusted

(C) investigated

**(D) upheld**

**6. Bricks are mentioned in lines 14-16 to indicate how?**

(A) mathematicians approach science.

(B) building a house is like performing experiments.

**(C) science is more than a collection of facts.**

(D) scientific experiments have led to improved technology

**7. In the fourth paragraph, the author implies that imagination is most important to scientists when they**

(A) evaluate previous work on a problem.

**(B) formulate possible solutions to a problem.**

(C) gather known facts.

(D) close an investigation.

**8. In line 21, the author refers to a hypothesis as "a leap into the Unknown in order to show that hypotheses**

(A) are sometimes ill-conceived

(B) can lead to dangerous results

**(C) go beyond available facts**

(D) require effort to formulate

**9. In the last paragraph, what does the author imply is a major function of hypotheses ?**

(A) Sifting through known facts.

(B) Communicating a scientist's thoughts to others.

**(C) Providing direction for scientific research.**

(D) Linking together different theories.

**10. Which of the following statements is supported by the passage?**

(A) Theories are simply imaginary models of past events.

(B) It is better to revise a hypothesis than to reject it.

(C) A scientist's most difficult task is testing hypotheses.

**(D) A good scientist needs to be creative.**

**GOOD LUCK**