Warren. When the general died at the battle of Breeds Hill, Revere identified him by examining his teeth. This was the first known case of identification by means of dental records. Today, of course, dental records are commonly used as a means of identification.

By the early nineteenth century, most communities in the United States had one or more dentists, although not all of them had much training. In 1840, dentistry became a true profession. That's when the first dental school was opened in Baltimore, Maryland. The course lasted sixteen weeks. There were only five students in the first class, and only two of these graduated. This school has recently been restored as a museum of dental history.

The most common cure for toothaches was simply to pull out the offending tooth. Many dentists advertised “painless” extraction methods in the newspapers of the times. “Negative Spray” and “Vitalized Air” were two methods of reducing pain. It is not known today how these mysterious processes worked, but it is unlikely that they worked very well. In 1844, dentist Horace Wills had patients inhale the gas nitrous oxide just before having a tooth pulled. The tooth could then be painlessly removed. Nitrous oxide mixed with oxygen is still used today to reduce pain during dental procedures. Two years later, in 1846, the dentist William Morton gave a public demonstration of the effects of ether, which could be used as anesthesia not only during dental operations but for surgeries of all kinds.

Another important development in dentistry was the discovery of X rays in 1895. X rays allow dentists to look inside teeth to discover defects. Early decay, impacted teeth, abscesses, and bone loss are all things that dental X rays reveal.

The first dental drills appeared in the 1870's. They were powered by foot pedals like the sewing machines of the time. Drills were given electric power in the late 1890's. These power drills, which were at first called “dental engines,” could be used for more than drilling cavities. They could also be used to shape and polish teeth. Quieter, faster drilling equipment aimed at reducing the discomfort of drilling was developed by John V. Borden in the 1950's. These drills work at high speeds to reduce the pressure and vibration caused by older drills, and are cooled by air or water to reduce the pain caused by the heat that drilling produces.

1. What story is told about the first dentist in the North American colonies?
2. People in which of the following occupations probably did NOT practice emergency dentistry?
3. What material did Paul Revere use to make artificial teeth?
4. How many students graduated in the first class to study dentistry in the United States?
5. How is the building that housed the first dental school in the United States used at present?
6. According to the passage, what were “Negative Spray” and “Vitalized Air”?
7. In what year did William Morton demonstrate ether?
8. Which of the following is NOT one of the problems that X rays can indicate?
Passage 2

1 A deer's antlers grow from knob-like bones on the deer's skull. Antlers are made of bone, not horn, and are live, growing tissue. They have a constant blood and nerve supply. Deer use their antlers to fight for mates during the breeding season or to gain leadership of a herd. Among most species, only the bucks (male deer) have antlers, but both male and female caribou and reindeer (which are domesticated caribou) have antlers. Musk deer and Chinese water deer do not have antlers at all.

2 Unlike animals with horns, such as cattle and bison, deer lose their antlers every year. Those that live in mild or cold climates lose their antlers in the winter, after the breeding season. New ones begin to grow out in the early spring. Deer that live in tropical climates may lose their antlers and grow new ones at any time of the year.

3 New antlers are soft and tender. Thin skin grows over the antlers as they develop. The short, fine hair on the skin looks like velvet. When the antlers stop growing, in early fall, this velvety skin dries up. Deer scrape their antlers against trees and shrubs to rub the skin off, an activity called a buck rub. The full-grown antlers are hard and strong. The antlers fall off several months later.

4 Young male deer—called button bucks—develop only small bumps for antlers during their first winter of life. For the next few years, the deer's antlers are small and straight. As deer mature, their antlers grow larger and form intricate branches. However, contrary to popular belief, it is not possible to accurately determine ages of deer by counting their "points" (the branches of their antlers). The size and shape of a buck's antlers depend on diet and general health as well as on genetic factors.

5 Deer antlers can grow up to one inch (2.5 centimeters) in a single day. That is the fastest growth rate in the animal kingdom. Scientists doing cancer research are studying deer antlers to try to learn how they can grow so rapidly. They hope that if they can answer that question, they may learn how cancer cells grow so quickly.
11. According to the passage, what are a deer's antlers made of?
12. The author says that the main purpose of a deer's antlers is to . . .
13. How are reindeer and caribou different from other types of deer?
14. When do deer that live in temperate climates lose their antlers?
15. What does the hair on a deer's antler resemble?
16. What is meant by the term buck rub?
17. What do a two-year-old deer's antlers look like?
18. The appearance of a deer's antlers does NOT depend on . . .
19. How much can a deer's antlers grow in one day?
20. Why are some scientists studying the antlers of deer?

Passage 3

1. Henry Schoolcraft was a pioneer in the study of Native American cultures. He studied chemistry and geology at Middlebury College in Vermont. As a young man, he managed his family's glassmaking business, and his first book was a treatise on glassmaking. However, when the family business failed he decided to head west to explore unknown territory and write about it in hopes of making a profit.

2. In 1803, the United States purchased the Louisiana Territory from France. President Thomas Jefferson immediately authorized the exploration of the vast territory. Meriwether Lewis and William Clark were chosen to find a pathway to the Pacific Ocean. Steven Long was sent to explore the Rocky Mountain region. Zebulon Pike went to the Southwest. Henry Schoolcraft was chosen to lead an expedition to the Ozark Mountain region of Missouri. In his book journal, Schoolcraft wrote about the minerals, the plants, the animals, and the people, both Native Americans and white frontiersmen, of the Ozarks.

3. Later, Schoolcraft became the chief naturalist for an exploration party that went to the upper Mississippi River Valley and the Great Lakes district. He became a negotiator with the Native Americans of the area and was appointed Indian Agent to the Ojibwa tribe. He married the daughter of an Ojibwa man and a white woman. He learned to speak the Ojibwa language. With the help of his wife, he collected a great deal of authentic folklore of the Ojibwa and other tribes. He wrote many books on Native Americans and their history and culture. The famous American poet Henry Longfellow based his epic poem Hiawatha in part on the writings of Schoolcraft.

4. Schoolcraft has his critics, who point out that Schoolcraft's research was incomplete and sometimes inaccurate. He lived in a romantic age. There is no doubt that he changed his materials to make them more appealing to his readers. He invented some of his stories completely, and he mixed the traditions of the Ojibwa with those of other tribes. Despite his failings, he did succeed in bringing the culture of Native Americans to the attention of the public.
Schoolcraft's work contrasted sharply with that of the ethnographers who worked in the last decade of the nineteenth century and the first decade of the twentieth. Their aim was to achieve complete accuracy in creating a record of Native American life, which at that time appeared to be in danger of completely vanishing within a few decades. Unlike Schoolcraft, they tended to take notes in the original language. With the development of the phonograph, it became possible to preserve not just words but also the tone and emphasis of oral delivery.

**Glossary**

- **naturalist**: a scientist that studies nature
- **epic poem**: a long poem that tells a story
- **ethnographers**: scientists that study groups of people

21. What was the subject of Schoolcraft's first book?
22. What event made Schoolcraft decide to become an explorer?
23. Which of these explorers was sent by Jefferson to the Southwest?
24. Which of the following did Schoolcraft probably NOT write about in his *Journal*?
25. What was Schoolcraft's role in the expedition to the upper Mississippi Valley?
26. Who assisted Schoolcraft in collecting information about Native Americans?
27. How did Schoolcraft influence Henry Longfellow?
28. According to the passage, Schoolcraft changed some of his materials in order to . . .
29. What was the main goal of the ethnographers mentioned in the passage?
30. What tool was available to the ethnographers but not to Schoolcraft?

**EXERCISE 1.2**

**FOCUS**: Answering factual and negative factual questions about reading passages.

**DIRECTIONS**: Read the following passages and the questions about them. Decide which of the choices best answers the question, and mark the answer.
Passage 1

**MESA VERDE NATIONAL PARK**

<table>
<thead>
<tr>
<th>UT</th>
<th>CO</th>
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</thead>
<tbody>
<tr>
<td>AZ</td>
<td>NM</td>
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1. *Mesa Verde* is the center of the prehistoric Anasazi culture. It is located in the high plateau lands near Four Corners in the U.S. Southwest, where Colorado, Utah, New Mexico, and Arizona come together. The climate in this region is dry, but at the bottom of deeply cut canyons, seeps, springs, and tiny streams can be found. These provided the water for the Anasazi crops of corn, beans, squash, tobacco, and cotton. Farming was the main business of these people, but the Anasazi domesticated the wild turkey, hunted deer, rabbits, and mountain sheep, and gathered wild plants.

2. For a thousand years the Anasazi lived at Mesa Verde. These Native Americans were not related to the Navajos, who came to the area long after the Anasazi. However, because no one knows what the Anasazi actually called themselves, they are commonly called by their Navajo name, which means “the ancient ones” in the Navajo language.

3. The first Anasazi people, who are called the Basket Makers by archaeologists, came to the area around 550. This formerly nomadic group began to live a more settled life. They built underground dwellings called pit houses. These were clustered into small villages, mostly on top of mesas but occasionally on ledges on the walls of the cliffs that formed the Mesa.

4. In the next 300 years, the Anasazi made rapid technological progress, including the refinement of basket making, pottery making, jewelry making, leather working, and weaving. A Stone Age people, the Anasazi did not use metal, but they skillfully shaped stone, bone, and wood into a variety of tools for grinding, cutting, scraping, and polishing. About 750, they began building
houses above ground. At first these houses were made of poles and mud, but later they were made of sandstone. This period of development is known as the Early Pueblo Period.

The Great Pueblo Period (1100–1300) was Mesa Verde's classic age. The population grew to about 5,000. The Anazis' level of technology continued to rise. Around 1200, there was another major population shift. The Anasazi moved from the mesa tops to the ledges on the steep sides of cliffs where some of their ancestors had lived centuries earlier.

On these ledges, the Anasazi built two- and three-story dwellings made of sandstone blocks held together with mortar made of mud. There were no doors on the first floors, and people had to use ladders to get into the buildings. Rooms averaged about six feet by nine feet (two meters by three meters). They were plastered on the inside and decorated with painted symbols. Smaller, isolated rooms were used for crop storage. The largest village (Cliff Palace) had 217 rooms. All the villages had underground chambers called kivas. Men held tribal councils there and also used them for secret religious ceremonies and clan meetings. Winding paths, ladders, and steps cut in the stone led from the villages to the valley below. One might surmise that these settlements were built on the cliffs for protection, but the Anasazi had no known enemies, and there is no sign of warfare.

A bigger mystery is why the Anasazi occupied their villages for such a short time. By 1300 Mesa Verde was deserted. It is generally thought that the Anasazi abandoned their settlements because of a prolonged drought, overpopulation, crop failure, or some combination of these. They probably moved southward and were incorporated into the pueblo villages that the Spanish explorers encountered two hundred years later. Their descendants may still live in the Southwest.

**Glossary**

**Mesa Verde**: Spanish phrase meaning green table (In English, a mesa is a flat-topped, table-shaped mountain.)
1. The passage does NOT mention that the Anasazi hunted
   - sheep
   - turkeys
   - deer
   - rabbit

2. The most important activity for the Anasazi was
   - growing crops
   - hunting wild animals
   - raising domestic animals
   - gathering wild plants

3. The name that the Anasazi used for themselves
   - means “Basket Maker” in the language of the Navajo
   - was given to them by archaeologists
   - is unknown today
   - means “Ancient Ones” in the Anasazis’ own language

4. How long did the Early Pueblo Period last?
   - 200 years
   - 300 years
   - 550 years
   - 1,000 years

5. During the Early Pueblo period, the Anasazi did NOT make
   - pots
   - leather goods
   - metal tools
   - jewelry

6. When did the Anasazi first begin to build houses from stone?
   - Before they came to Mesa Verde
   - During the Early Pueblo Period
   - Between 850 and 1100
   - During the Great Pueblo Period

7. Where did the Anasazi move during the Great Pueblo Period?
   - To pueblo villages in the south
   - Onto the tops of the mesa
   - Onto the floors of the canyon
   - To settlements on the ledges of cliff walls
8. During the Great Pueblo Period, Anasazi houses were mainly made of
   ○ wood
   ○ mud
   ○ stone
   ○ plaster

9. According to the passage, the Anasazi entered their buildings
   ○ by means of ladders
   ○ from underground chambers
   ○ by means of stone stairways
   ○ through doors on the first floor

10. According to the passage, **kivas** were used for all of the following purposes
    EXCEPT
    ○ clan meetings
    ○ food storage
    ○ religious ceremonies
    ○ tribal councils

11. According to the passage, the LEAST likely reason that the Anasazi abandoned
    Mesa Verde was
    ○ drought
    ○ overpopulation
    ○ war
    ○ crop failure

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**Passage 2**

1. The dulcimer is a musical instrument that basically consists of a wooden box
   with strings stretched across it. The name *dulcimer* is derived from the Latin
   word *dulcis* (sweet) and the Greek word *melos* (song). In one form or another,
   dulcimers have been around since ancient times. Their earliest ancestor was a
   Persian instrument called the santir. Dulcimer-like instruments were played
   throughout the Middle East and North Africa and were brought by Arab musi-
   cians to Spain. From Spain, the instrument spread throughout Europe and eventu-
   ally to North America.

2. Today there are two main types of dulcimers played in the United States:
   the hammered dulcimer and the Appalachian, or mountain, dulcimer. The ham-
   mered dulcimer is shaped like a trapezoid and is played by striking the strings
   with small wooden hammers called mallets. On the hammered dulcimer, there
   are sets of two, three, or four strings, called courses, which are struck at one
   time to sound each note. There are from twelve to twenty-two courses on a
   standard hammered dulcimer. The hammered dulcimer is usually categorized
   as belonging to the zither family of string instruments, although some
   musicologists challenge this classification.
The Appalachian dulcimer's immediate ancestors include the German scheitholt, the French epinette, and perhaps the Swedish hummel. It is classified as a member of the lute family of instruments. Appalachian dulcimers are painstakingly crafted by artisans, mainly in the mountain areas of West Virginia, Kentucky, Tennessee, and Virginia. They have three strings—the melody, middle, and bass string. Sometimes a second melody string is added. This instrument is played by plucking the strings with the fingers or with quills. They are shaped like teardrops or hourglasses. Heart-shaped holes in the sounding boards are traditional. Most performers play the instrument while seated with the instruments in their laps, but others wear them around their necks like guitars or place them on tables in front of them. Before the 1960's, the Appalachian dulcimer had a limited appeal. It was usually associated with dance music and with "hillbilly" music. However, the instrument was popularized by musicians such as Jean Richie and Richard Faríña during the folk music revival of the 1960's and is today featured in many types of music.

**Glossary**

hillbilly: a person from the rural mountainous regions of the southeastern U.S.

12. The author says that the word *dulcimer*
   - ○ means “wooden box”
   - ○ was not used until the 1960’s
   - ○ means “sweet song” in Persian
   - ○ comes from two languages

13. What is the greatest number of notes that could be played on a standard hammered dulcimer?
   - ○ Three
   - ○ Four
   - ○ Twelve
   - ○ Twenty-two

14. According to the passage, experts do NOT all agree that the
   - ○ Appalachian dulcimer is a member of the lute family
   - ○ hammered dulcimer should be classified as a string instrument
   - ○ hammered dulcimer is a member of the zither family
   - ○ Appalachian dulcimer had a limited appeal before 1960
15. Which of these instruments could NOT be considered an ancestor of the Appalachian dulcimer?
   ○ The zither
   ○ The epinette
   ○ The santir
   ○ The scheitholt

16. According to the passage, how many strings does the Appalachian dulcimer have?
   ○ One or two
   ○ Three or four
   ○ Four or five
   ○ Six or more

17. According to the passage, most musicians play the Appalachian dulcimer
   ○ while sitting down
   ○ with the instrument around their necks
   ○ while standing next to tables
   ○ with wooden hammers

18. According to the passage, Jean Richie and Richard Fariña are known for
   ○ playing dance music and “hillbilly” music
   ○ designing and building Appalachian dulcimers
   ○ helping to bring more attention to dulcimers
   ○ beginning the folk music revival of the 1960's

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Passage 3

1 Humanitarian Dorothea Dix was born in the tiny village of Hampden, Maine, in 1802. An avid reader and fast learner, she was taken in by her grandmother, who lived in Boston, and was educated there. When only nineteen years old, she established the Dix Mansion School for girls in Boston. There was no lack of students, and the school provided a good source of income for her and her two
brothers, whom she had brought to Boston to live with her. She also wrote and published the first of many books for children in 1824. In 1836, however, her health failed. She suffered most of her life from “lung trouble” (probably tuberculosis) and depression. She was forced to stop teaching and had to close her school.

Later that same year, having partially recovered, Dix set off for Italy to rest and recover her health in the warm Italian sunshine. She never made it to Italy, however. By the time her ship arrived in England, she was too ill to continue. She was taken care of by a kind British friend, William Rathbone. During her time in England, she became friends with Samuel Tuke, who directed the York Retreat for the Mentally Disordered. From Tuke, she learned new, more humane methods for taking care of the mentally ill.

Returning to the United States, Dix volunteered to teach classes at a prison for women in Cambridge, Massachusetts. Over the objections of the jailer, she went to the lower level of the jail where the mentally ill were housed. She was shocked to see that they were treated far worse even than ordinary criminals and were forced to live in filthy, miserable, brutal conditions. She vowed to spend the rest of her life improving conditions for the mentally ill.

For the next eighteen months, Dix toured Massachusetts prisons, poorhouses, and local jails where other mental patients were confined. She reported on the terrible conditions that she found to the Massachusetts legislature, which soon passed laws to improve conditions. After that, she turned her attention to neighboring New England states and then to the West and South. She traveled thousands of miles by train, coach, carriage, and riverboat, systematically gathering facts in order to convince those in power.

When the Civil War broke out in 1861, Dix was nearly sixty years old. However, she volunteered to form the Army Nursing Corps. At first, military authorities, who were not accustomed to female nurses, were skeptical, but she convinced them that women could perform this work acceptably. She recruited over 3,000 women and raised money for medical supplies for the troops. Under her leadership, army nursing care greatly improved.

After the war, Dix returned to her life’s work and resumed her travels. She saw special hospitals for the mentally ill built in fifteen states. She asked the federal government to use the income from public lands to help poor mental patients, and although both houses of Congress approved this bill, President Pierce vetoed it. Even though this plan failed, Dix was able to arouse concern for the problem of mental illness all over the United States as well as in Canada and Europe. Dix’s success was due to her independent and thorough research, her gentle but persistent manner, and her ability to convince powerful and wealthy patrons to help her.

**Glossary**

**tuberculosis**: a communicable disease of the lungs
19. The Dix Mansion school closed because Dix
   ☐ was in poor health
   ☐ could not attract enough students
   ☐ decided to travel to Europe
   ☐ had to take care of her brothers

20. Who taught Dix new ideas about caring for the mentally ill?
   ☐ Her grandmother
   ☐ William Rathbone
   ☐ Samuel Tuke
   ☐ A jailer at a prison in Cambridge

21. Why did Dorothea Dix first go to the women's prison in Cambridge, Massachusetts?
   ☐ She was sent there by the Massachusetts legislature.
   ☐ She wanted to do research on prison conditions.
   ☐ She was hired to be the jailer.
   ☐ She was teaching a class there.

22. Where was Dorothea Dix first able to bring about reforms in the treatment of the mentally ill?
   ☐ England
   ☐ Massachusetts
   ☐ The southern part of the U.S.
   ☐ Maine

23. What does the author say about the military authorities in paragraph 5?
   ☐ They were not used to women nurses.
   ☐ They asked Dix to become superintendent.
   ☐ They improved army nursing care during the war.
   ☐ They did not allow Dix to recruit nurses herself.

24. Dix was NOT successful in her attempt to
   ☐ publish books for children
   ☐ arouse concern for the mentally ill
   ☐ obtain income from public lands
   ☐ become superintendent of nurses

25. What was Dix's “life work” as mentioned in paragraph 6?
   ☐ Helping prisoners
   ☐ Writing about her travels
   ☐ Improving conditions for the mentally ill
   ☐ Redefining the profession of nursing

26. Which of the following is NOT given as one of the reasons for Dix's success?
   ☐ Her research was independent and methodical.
   ☐ She attracted rich, influential sponsors to her cause.
   ☐ Although she had a gentle manner, she didn't give up.
   ☐ Her personal wealth allowed her to finance projects herself.
Passage 4

1. Ambient divers do not go underwater in submersible vehicles, such as a diving bell, a bathysphere, or in a pressure-resistant suit. They are divers who are exposed to the pressure and temperature of the surrounding (ambient) water. Of all types of diving, the oldest and simplest is free diving. Some free divers may use no equipment at all, but many use a face mask, foot fins, and a snorkel. Under the surface, free divers must hold their breath. Most free divers can only descend 30 feet (10 meters) beneath the surface, but some expert divers can go as deep as 100 feet (33 meters).

2. SCUBA diving provides greater range than free diving. The word SCUBA stands for Self-Contained Underwater Breathing Apparatus. SCUBA divers wear metal tanks with compressed air or other breathing gases. When using open-circuit equipment, a SCUBA diver simply breathes air from the tank through a hose and releases the exhaled air into the water. A closed-circuit breathing device, called a rebreather, filters out carbon dioxide and other harmful gases and automatically adds oxygen. This enables the diver to breathe the same air over and over. SCUBA divers usually use foot fins to help them swim underwater. They may wear only swimsuits (skin diving), or they may wear rubber wetsuits to help protect them from cold water.

3. SCUBA diving has been practiced since the nineteenth century, but it was not until 1942 that SCUBA diving became simple and safe. That was the year that Jacques-Yves Cousteau, a French naval officer, and Emile Gagnan, an engineer for a natural gas company, redesigned the regulator from an automobile engine so that it could be used to automatically regulate the flow of air to a diver. Cousteau and Gagnan attached the new regulator to hoses, a mouthpiece, and a pair of compressed air tanks and called this equipment the Aqualung. Aqualungs were soon being sold in dive shops around the world, and SCUBA diving became a popular sport.
4 In surface-supplied diving, divers wear helmets and waterproof canvas suits. Today, sophisticated plastic helmets have replaced the heavy copper ones used in the past. Surface-supplied divers get their air from a hose connected to air compressors on a pier or on a boat. Surface-supplied divers can go deeper and stay submerged longer than any other type of ambient diver. Unlike scuba divers, many of whom are sports divers, almost all surface-supplied divers work on tasks such as underwater construction and salvage operations.

Glossary

**snorkel**: a long breathing tube that a diver holds in his or her mouth

27. Ambient divers are ones who
   - can descend to great depths
   - wear pressure-resistant suits
   - use no equipment
   - are exposed to the surrounding water

28. According to the passage, a free diver may use any of the following EXCEPT
   - a rebreather
   - a snorkel
   - foot fins
   - a mask

29. According to the passage, the maximum depth for expert free divers is
   - 10 feet (3.3 meters)
   - 30 feet (10 meters)
   - 100 feet (33.3 meters)
   - 300 feet (100 meters)

30. In paragraph 2, what distinction does the author make between open-circuit SCUBA divers and closed-circuit SCUBA divers?
   - Closed-circuit divers use air from a tank, but open-circuit divers do not.
   - Closed-circuit divers breathe the same air again and again, but open-circuit divers do not.
   - Closed-circuit divers wear wetsuits, but open-circuit divers wear only swimsuits.
   - Closed-circuit divers use compressed air, but open-circuit divers use other breathing gases.

31. In paragraph 3, the author discusses how Cousteau and Gagnan
   - developed safer and simpler SCUBA equipment
   - designed a new regulator for automobile engines
   - adapted equipment from the natural gas industry for use by divers
   - invented new tactics for military divers
32. Today, surface-supplied divers' helmets are made from

- [ ] copper
- [ ] canvas
- [ ] plastic
- [ ] glass

33. Which of the following statements about surface-supplied divers is NOT true?

- [ ] They can dive deepest of all ambient divers.
- [ ] They can dive only from boats.
- [ ] They can stay underwater the longest of all ambient divers.
- [ ] They generally dive for work, not for recreation.

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**Passage 5**

1. In 1862, in the midst of the Civil War, President Lincoln signed the Morrill Act. The measure was named for Congressman (later Senator) Justin S. Morrill of Vermont. Popularly called the Land Grant Act, it provided each state with thousands of acres of federally owned land. Each state received 30,000 acres (10,033 hectares) for each senator (all states have two senators) and 30,000 acres for each representative in Congress (the number of representatives depends on the population of the state). The bill required that the land be sold, the proceeds invested, and the income used to create and maintain colleges around the nation to teach agriculture and engineering.

2. The Morrill Act introduced two radical ideas to education: that higher education should be practical, and that it should be available to the working classes, not just to the wealthy. Before land-grant universities, college was basically for a select few, and the curriculum stressed "classical" subjects such as Latin, rhetoric, and mathematics. The Morrill Act promoted the idea that working-class students could attend a quality college to learn to grow corn or build bridges.

3. Although not all states used the money as the Morrill Act specified, some thirty states did establish new universities. Universities that trace their roots to the Morrill Act include Purdue, Rutgers, the University of Illinois, Texas A & M, the University of California, Ohio State, and Cornell. Eighteen states gave their money to existing state universities. A few states gave their money to private colleges. For example, Massachusetts used much of its funds to endow the Massachusetts Institute of Technology. One state changed its mind. Yale University, a private school, was chosen to be funded in Connecticut, but farmers protested, and the legislature moved the assets to the University of Connecticut.

4. It is not surprising that the Morrill Act emphasized agriculture. At the time it went into effect, over 80% of U.S. citizens lived in rural areas. In 1887, the Hatch Act established agricultural research centers at land-grant schools. This led to improvements in fertilizers, seeds, pesticides, livestock breeding, and disease control. Another bill, the Smith-Lever Act of 1914, provided for agricultural extension agents. These agents, who are based at land-grant schools, work directly with farmers to advise them about the latest farming techniques.
Gradually, most land-grant universities moved away from the narrow functions that were first assigned to them. Eventually they came to offer a full range of academic offerings, from anthropology to zoology. There are today 105 land-grant institutions in all fifty states and in the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. About one in five college students in the United States attends land-grant schools.

34. According to the passage, when the Morrill Act was signed, its sponsor was
   ○ a general
   ○ a senator
   ○ a congressman
   ○ an engineer

35. What did the Morrill Act say about the land that was given to the states?
   ○ It had to be used by farmers.
   ○ Universities had to be built on it.
   ○ It had to be sold.
   ○ Each state could decide what to do with it.

36. According to the passage, the amount of land that each state received depended on
   ○ the physical size of the state
   ○ the number of senators and representatives
   ○ the number of college students who lived there
   ○ the condition of existing colleges

37. One of the “radical ideas about education” introduced by the Morrill Act was that
   ○ Latin and other classical subjects should be taught in college
   ○ students should learn subjects such as farming by actually working on farms
   ○ colleges should be more selective in their choice of students
   ○ useful subjects such as agriculture and engineering should be taught in colleges

38. According to the passage, the greatest number of states spent the money that they received from the Morrill Act on
   ○ giving money to private universities
   ○ establishing new departments at existing universities
   ○ creating new universities
   ○ rebuilding schools that had been damaged in the Civil War

39. Which of these states funded a private college?
   ○ Connecticut
   ○ Massachusetts
   ○ Illinois
   ○ California
40. Who objected to the way that the Connecticut legislature initially decided to spend its funds?
   ○ Farmers
   ○ Students
   ○ Senators
   ○ Teachers

41. According to the passage, one effect of the Hatch Act was to
   ○ create more land-grant schools
   ○ provide advisors for farmers
   ○ strengthen engineering programs
   ○ establish agricultural research stations

42. Today, most land-grant colleges
   ○ no longer offer courses in agriculture and engineering
   ○ offer a wider variety of courses
   ○ now emphasize research more than teaching
   ○ no longer have an important role in U.S. education

43. How many land-grant schools are in operation at present?
   ○ 5
   ○ 20
   ○ 50
   ○ 105