The conservatism of the early English colonists in North America, their strong attachment to the English way of doing things, would play a major part in the furniture that was made in New England. The very tools that the first New England furniture makers used were, after all, not much different from those used for centuries — even millennia: basic hammers, saws, chisels, planes, augers, compasses, and measures. These were the tools used more or less by all people who worked with wood: carpenters, barrel makers, and shipwrights. At most the furniture makers might have had planes with special edges or more delicate chisels, but there could not have been much specialization in the early years of the colonies.

The furniture makers in those early decades of the 1600’s were known as “joiners,” for the primary method of constructing furniture, at least among the English of this time, was that of mortise-and-tenon joinery. The mortise is the hole chiseled and cut into one piece of wood, while the tenon is the tongue or protruding element shaped from another piece of wood so that it fits into the mortise; and another small hole is then drilled (with the auger) through the mortised end and the tenon so that a whittled peg can secure the joint — thus the term “joiner.” Panels were fitted into slots on the basic frames. This kind of construction was used for making everything from houses to chests.

Relatively little hardware was used during this period. Some nails — forged by hand — were used, but no screws or glue. Hinges were often made of leather, but metal hinges were also used. The cruder varieties were made by blacksmiths in the colonies, but the finer metal elements were imported. Locks and escutcheon plates — the latter to shield the wood from the metal key — would often be imported.

Above all, what the early English colonists imported was their knowledge of, familiarity with, and dedication to the traditional types and designs of furniture they knew in England.

1. The phrase “attachment to” in line 2 is closest in meaning to
   (A) control of
   (B) distance from
   (C) curiosity about
   (D) preference for

2. The word “protruding” in line 13 is closest in meaning to
   (A) parallel
   (B) simple
   (C) projecting
   (D) important
3. The relationship of a mortise and a tenon is most similar to that of
   (A) a lock and a key
   (B) a book and its cover
   (C) a cup and a saucer
   (D) a hammer and a nail

4. For what purpose did woodworkers use an auger
   (A) To whittle a peg
   (B) To make a tenon
   (C) To drill a hole
   (D) To measure a panel

5. Which of the following were NOT used in the construction of colonial furniture?
   (A) Mortises
   (B) Nails
   (C) Hinges
   (D) Screws

6. The author implies that colonial metalworkers were
   (A) unable to make elaborate parts
   (B) more skilled than woodworkers
   (C) more conservative than other colonists
   (D) frequently employed by joiners

7. The word “shield” in line 23 is closest in meaning to
   (A) decorate
   (B) copy
   (C) shape
   (D) protect

8. The word “they” in line 25 refers to
   (A) designs
   (B) types
   (C) colonists
   (D) all

9. The author implies that the colonial joiners
   (A) were highly paid
   (B) based their furniture on English models
   (C) used many specialized tools
   (D) had to adjust to using new kinds of wood in New England

10. Which of the following terms does the author explain in the passage?
    (A) “millennia” (line 5)
    (B) “joiners” (line 10)
    (C) “whittled” (line 15)
    (D) “blacksmiths” (line 21)
In addition to their military role, the forts of the nineteenth century provided numerous other benefits for the American West. The establishment of these posts opened new roads and provided for the protection of daring adventurers and expeditions as well as established settlers. Forts also served as bases where enterprising entrepreneurs could bring commerce to the West, providing supplies and refreshments to soldiers as well as to pioneers. Posts like Fort Laramie provided supplies for wagon trains traveling the natural highways toward new frontiers. Some posts became stations for the pony express; still others, such as Fort Davis, were stagecoach stops for weary travelers. All of these functions, of course, suggest that the contributions of the forts to the civilization and development of the West extended beyond patrol duty.

Through the establishment of military posts, yet other contributions were made to the development of western culture. Many posts maintained libraries or reading rooms, and some – for example, Fort Davis – had schools. Post chapels provided a setting for religious services and weddings. Throughout the wilderness, post bands provided entertainment and boosted morale. During the last part of the nineteenth century, to reduce expenses, gardening was encouraged at the forts, thus making experimental agriculture another activity of the military. The military stationed at the various forts also played a role in civilian life by assisting in maintaining order, and civilian officials often called on the army for protection.

Certainly, among other significant contributions the army made to the improvement of the conditions of life was the investigation of the relationships among health, climate, and architecture. From the earliest colonial times throughout the nineteenth century, disease ranked as the foremost problem in defense. It slowed construction of forts and inhibited their military functions. Official documents from many regions contained innumerable reports of sickness that virtually incapacitated entire garrisons. In response to the problems, detailed observations of architecture and climate and their relationships to the frequency of the occurrence of various diseases were recorded at various posts across the nation by military surgeons.

11. Which of the following statements best expresses the main idea of the passage?

(A) By the nineteenth century, forts were no longer used by the military.
(B) Surgeons at forts could not prevent outbreaks of disease.
(C) Forts were important to the development of the American West.
(D) Life in nineteenth-century forts was very rough.

12. The word “daring” in line 3 is closest in meaning to

(A) lost
(B) bold
(C) lively
(D) foolish
13. Which of the following would a traveler be likely be LEAST likely to obtain at Fort Laramie?
   (A) Fresh water
   (B) Food
   (C) Formal clothing
   (D) Lodging

14. The word “others” in line 8 refers to
   (A) posts
   (B) wagon trains
   (C) frontiers
   (D) highways

15. The word “boosted” in line 15 is closest in meaning to
   (A) influenced
   (B) established
   (C) raised
   (D) maintained

16. Which of the following is the most likely inference about the decision to promote gardening at forts?
   (A) It was expensive to import produce from far away.
   (B) Food brought in from outside was often spoiled
   (C) Gardening was a way to occupy otherwise idle soldiers.
   (D) The soil near the forts was very fertile.

17. According to the passage, which of the following posed the biggest obstacle to the development of military forts?
   (A) Insufficient shelter
   (B) Shortage of materials
   (C) Attacks by wild animals
   (D) Illness

18. The word “inhibited” in line 24 is closest in meaning to
   (A) involved
   (B) exploited
   (C) united
   (D) hindered

19. How did the military assists in the investigation of health problems?
   (A) By registering annual birth and death rates
   (B) By experiments with different building materials
   (C) By maintaining records of diseases and potential causes
   (D) By monitoring the soldiers’ diets

20. The author organizes the discussion of forts by
   (A) describing their locations
   (B) comparing their sizes
   (C) explaining their damage to the environment
   (D) listing their contributions to western life
Anyone who has handled a fossilized bone knows that it is usually not exactly like its modern counterpart, the most obvious difference being that it is often much heavier. Fossils often have the quality of stone rather than of organic materials, and this has led to the use of the term “petrifaction” (to bring about rock). The implication is that bone, and other tissues, have somehow been turned into stone, and this is certainly the explanation given in some texts. But it is wrong interpretation; fossils are frequently so dense because the pores and other spaces in the bone have become filled with minerals taken up from the surrounding sediments. Some fossil bones have all the interstitial spaces filled with foreign minerals, including the marrow cavity, if there is one, while others have taken up but little from their surroundings. Probably all of the minerals deposited within the bone have been recrystallized from solution by the action of water percolating thru them. The degree of mineralization appears to be determined by the nature of the environment in which the bone was deposited and not by the antiquity of the bone. For example, the black fossil bones that are so common in many parts of Florida are heavily mineralized, but they are only about 20,000 years old, whereas many of the dinosaur bones from western Canada, which are about 75 million years old, are only partially filled in. Under optimum conditions the process of mineralization probably takes thousands rather than millions of years, perhaps considerably less.

The amount of change that has occurred in fossil bone, even in bone as old as that of dinosaurs, is often remarkably small. We are therefore usually able to see the microscopic structures of the bone, including such fine details as the lacunae where the living bone cells once resided. The natural bone mineral, the hydroxyapatite, is virtually unaltered too – it has the same crystal structure as that of modern bone. Although nothing remains of the original collagen, some of its component amino acids are usually still detectable, together with amino acids of the noncollagen proteins of bone.

21. What does the passage mainly discuss?
(A) The location of fossils in North America
(B) The composition of fossils
(C) Determining the size and weight of fossils
(D) Procedures for analyzing fossils

22. The word “counterpart” in line 2 is closest in meaning to
(A) species
(B) version
(C) change
(D) material
23. Why is fossilized bone heavier than ordinary bone?

(A) Bone tissue solidifies with age.
(B) The marrow cavity gradually fills with water.
(C) The organic materials turn to stone.
(D) Spaces within the bone fill with minerals.

24. The word “pores” in line 7 is closest in meaning to:

(A) joints
(B) tissues
(C) lines
(D) holes

25. What can be inferred about a fossil with a high degree of mineralization?

(A) It was exposed to large amounts of mineral-laden water throughout time.
(B) Mineralization was complete within one year of the animal’s death.
(C) Many colorful crystals can be found in such a fossil.
(D) It was discovered in western Canada.

26. Which of the following factors is most important in determining the extent of mineralization in fossil bones?

(A) The age of fossil
(B) Environmental conditions
(C) The location of the bone in the animal’s body.
(D) The type of animal the bone came from.

27. Why does the author compare fossils found in western Canada to those found in Florida?

(A) To prove that a fossil’s age cannot be determined by the amount of mineralization.
(B) To discuss the large quantity of fossils found in both places.
(C) To suggest that fossils found in both places were the same age.
(D) To explain why scientists are especially interested in Canadian fossils.

28. The word “it” in line 24 refers to:

(A) hydroxyapatite
(B) microscopic structure
(C) crystal structure
(D) modern bone

29. The word “detectable” in line 26 is closest in meaning to:

(A) sizable
(B) active
(C) moist
(D) apparent

30. Which of the following does NOT survive in fossils?

(A) Noncollagen proteins
(B) Hydroxyapatite
(C) Collagen
(D) Amino acid
In the last third of the nineteenth century a new housing form was quietly being developed. In 1869 the Stuyvesant, considered New York’s first apartment house was built on East Eighteenth Street. The building was financed by the developer Rutherfurd Stuyvesant and designed by Richard Morris Hunt, the first American architect to graduate from the Ecole des Beaux Arts in Paris. Each man had lived in Paris, and each understood the economics and social potential of this Parisian housing form. But the Stuyvesant was at best a limited success. In spite of Hunt’s inviting façade, the living space was awkwardly arranged. Those who could afford them were quite content to remain in the more sumptuous, single-family homes, leaving the Stuyvesant to young married couples and bachelors.

The fundamental problem with the Stuyvesant and the other early apartment buildings that quickly followed, in the 1870’s and early 1880’s was that they were confined to the typical New York building lot. That lot was a rectangular area 25 feet wide by 100 feet deep – a shape perfectly suited for a row house. The lot could also accommodate a rectangular tenement, though it could not yield the square, well-lighted, and logically arranged rooms that great apartment buildings require. But even with the awkward interior configurations of the early apartment buildings, the idea caught on. It met the needs of a large and growing population that wanted something better than tenements but could not afford or did not want row houses.

So while the city’s newly emerging social leadership commissioned their mansions, apartment houses and hotels began to sprout in multiple lots, thus breaking the initial space constraints. In the closing decades of the nineteenth century, large apartment houses began dotting the developed portions of New York City, and by the opening decades of the twentieth century, spacious buildings, such as the Dakota and the Ansonia finally transcended the tight confinement of row house building lots. From there it was only a small step to building luxury apartment houses on the newly created Park Avenue, right next to the fashionable Fifth Avenue shopping area.

31. The new housing form discussed in the passage refers to
(A) single-family homes
(B) apartment buildings
(C) row houses
(D) hotels

32. The word “inviting” in line 7 is closest in meaning to
(A) open
(B) encouraging
(C) attractive
(D) asking

33. Why was the Stuyvesant a limited success?
(A) The arrangement of the rooms was not convenient.
(B) Most people could not afford to live there.
(C) There were no shopping areas nearby.
(D) It was in a crowded neighborhood.
34. The word “sumptuous” in line 9 is closest in meaning to:
   (A) luxurious
   (B) unique
   (C) modern
   (D) distant

35. It can be inferred that the majority of people who lived in New York’s first apartments were:
   (A) highly educated
   (B) unemployed
   (C) wealthy
   (D) young

36. It can be inferred that the typical New York building lot of the 1870’s and 1880’s looked MOST like which of the following?

37. It can be inferred that a New York apartment building in the 1870’s and 1880’s had all of the following characteristics EXCEPT:
   (A) Its room arrangement was not logical.
   (B) It was rectangular.
   (C) It was spacious inside.
   (D) It had limited light.

38. The word “yield” in line 15 is closest in meaning to:
   (A) harvest
   (B) surrender
   (C) amount
   (D) provide

39. Why did the idea of living in an apartment become popular in the late 1800’s?
   (A) Large families needed housing with sufficient space.
   (B) Apartments were preferable to tenements and cheaper than row houses
   (C) The city officials of New York wanted housing that was centrally located.
   (D) The shape of early apartments could accommodate a variety of interior designs.

40. The author mentions the Dakota and the Ansonia in line 24 because:
   (A) they are examples of large, well-designed apartment buildings
   (B) their design is similar to that of row houses
   (C) they were built on a single building lot
   (D) they are famous hotels
A snowfall consists of myriads of minute ice crystals that fall to the ground in the form of frozen precipitation. The formation of snow begins with these ice crystals in the subfreezing strata of the middle and upper atmosphere when there is an adequate supply of moisture present. At the core of every ice crystal is a minuscule nucleus, a solid particle of matter around which moisture condenses and freezes. Liquid water droplets floating in the supercooled atmosphere and free ice crystals cannot coexist within the same cloud, since the vapor pressure of ice is less than that of water. This enables the ice crystals to rob the liquid droplets of their moisture and grow continuously. The process can be very rapid, quickly creating sizable ice crystals, some of which adhere to each other to create a cluster of ice crystals or a snowflake. Simple flakes possess a variety of beautiful forms, usually hexagonal, though the symmetrical shapes reproduced in most microscope photography of snowflakes are not usually found in actual snowfalls. Typically, snowflakes in actual snowfall consists of broken fragments and clusters of adhering ice crystals.

For a snowfall to continue once it starts, there must be a constant inflow of moisture to supply the nuclei. This moisture is supplied by the passage of an airstream over a water surface and its subsequent lifting to higher regions of the atmosphere. The Pacific Ocean is the source of moisture for most snowfalls west of the Rocky Mountains, while the Gulf of Mexico and the Atlantic Ocean feed water vapor into the air currents over the central and eastern sections of the United States. Other geographical features also can be the source of moisture for some snowstorms. For example, areas adjacent to the Great Lakes experience their own unique lake-effect storms, employing a variation of the process on a local scale. In addition, mountainous section or rising terrain can initiate snowfalls by the geographical lifting of a moist airstream.

41. Which of the following questions does the author answer in the first paragraph?
   (A) Why are snowflakes hexagonal?
   (B) What is the optimum temperature for snow?
   (C) In which months does most snow fall?
   (D) How are snowflakes formed?

42. The word “minute” in line 1 is closest in meaning to
   (A) tiny
   (B) quick
   (C) clear
   (D) sharp
43. What is at the center of an ice crystal?
   (A) A small snowflake  
   (B) A nucleus  
   (C) A drop of water  
   (D) A hexagon

44. The word “adhere” in line 10 is closest in meaning to
   (A) belong  
   (B) relate  
   (C) stick  
   (D) speed

45. What is the main topic of the second paragraph?
   (A) How ice crystals form  
   (B) How moisture affects temperature  
   (C) What happens when ice crystals melt  
   (D) Where the moisture to supply the nuclei comes from

46. The word “it” in line 15 refers to
   (A) snowfall  
   (B) snowflake  
   (C) cluster  
   (D) moisture

47. What is necessary for a snowfall to persist?
   (A) A decrease in the number of snowflakes  
   (B) Lowered vapor pressure in ice crystals  
   (C) A continuous infusion of moisture  
   (D) A change in the direction of the airstream

48. How do lake-effect snowstorms form?
   (A) Water temperature drop below freezing.
   (B) Moisture rises from a lake into the airstream.
   (C) Large quantities of wet air come off a nearby mountain.
   (D) Millions of ice crystals form on the surface of a large lake.

49. The word “initiate” in line 24 is closest in meaning to
   (A) enhance  
   (B) alter  
   (C) increase  
   (D) begin

50. Which of the following could account for the lack of snowfall in a geographical location close to mountains and a major water source?
   (A) Ground temperatures below the freezing point  
   (B) Too much moisture in the air  
   (C) Too much wind off the mountains  
   (D) Atmospheric temperatures above the freezing point.
## Practice Test A – Answers

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