



Florida EOC Coach Jumpstart, Biology 1

# Coached Test

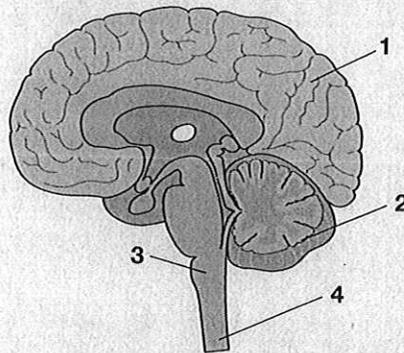
Name: \_\_\_\_\_

1. Flowering plants are classified as monocots or dicots. Monocots have fibrous root systems, while dicots have taproots. What is one advantage of a taproot system over a fibrous root system?
- A. A taproot can store food and water.
  - B. A taproot anchors the plant to the soil.
  - C. A taproot absorbs water and nutrients from the soil.
  - D. A taproot transports water and nutrients to the leaves.

**Hint** A taproot is a single large root that grows deep into the soil.

2. The brain controls most of the body's activities. The illustration below shows four parts of the brain.

#### CENTRAL NERVOUS SYSTEM



Which part is the cerebellum?

- A. part 1
- B. part 2
- C. part 3
- D. part 4

**Hint** The cerebellum controls basic movement, balance, and posture.

3. A doctor determines that a patient has low blood flow. Which of the following can reduce the flow of blood through the cardiovascular system?
- A. a buildup of plaque inside blood vessels
  - B. an increase in heart rate due to exercise
  - C. a thinning of the blood due to medication
  - D. a feeling of stress due to danger or excitement

**Hint** Anything that blocks the movement of blood will reduce its flow.

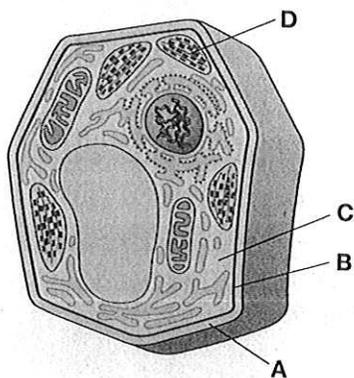
4. Many diseases have been nearly eliminated because of widespread vaccination. How do vaccines help the body to resist disease?
- A. They alter the shapes of antigens.
  - B. They stimulate the production of antibodies.
  - C. They kill bacteria or prevent them from reproducing.
  - D. They transfer antibodies from one organism to another.

**Hint** Vaccines are weakened or deactivated forms of pathogens.  
A vaccine causes the immune system to behave in a certain way.

5. In the mid-nineteenth century, the discoveries of many scientists were combined to develop the modern cell theory. Which of the following statements is NOT part of the cell theory?
- A. A single cell can be a living organism.
  - B. Cells are produced from existing cells.
  - C. All cells have the same internal structure.
  - D. Cells are the basic units of structure in living things.

**Hint:** Bacteria do not contain nuclei.

6. The diagram below shows a cell.

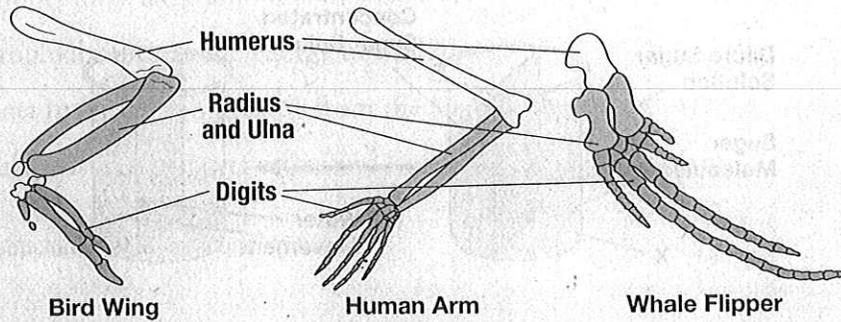


Which of these structures identifies this cell as a plant cell rather than an animal cell?

- A. structure A
- B. structure B
- C. structure C
- D. structure D

**Hint:** Which structure is found in plants and bacteria but is not found in animal cells?

7. Scientists often study physical features and anatomical structures, such as those in the diagram, to try to discover how organisms are related.



Which type of structures does the diagram illustrate?

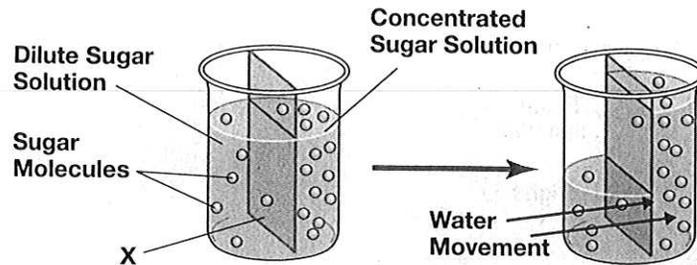
- A. vestigial
- B. analogous
- C. embryonic
- D. homologous

**Hint** Analogous structures have a similar function.

8. As hominids have evolved, their appearance, anatomy, and behavior have changed. Which of the following is a trend in hominid evolution?
- A. increase in the size of the teeth
  - B. increase in cranial capacity
  - C. increase in the size of the brow ridge
  - D. increase in the size of the jaw

**Hint** Hominids are the family of organisms that includes humans.

9. A teacher has set up a model to represent osmosis. The model is shown in the diagram below.



Which cell structure is represented by the object in the center of the beaker, labeled X?

- A. vacuole
- B. ribosome
- C. cell membrane
- D. mitochondrion

**Hint** What part of a cell controls substances that enter and leave the cell?

10. Two strands of DNA separate from each other during DNA replication. New bases attach to each base on the separated strands. Which base will attach to cytosine?
- A. uracil
  - B. adenine
  - C. guanine
  - D. thymine

**Hint** RNA contains one base not found in DNA.

11. Tracheophytes, such as oak trees, generally grow taller than bryophytes, such as mosses. Which adaptation allows tracheophytes to grow tall?
- A. A taproot stores large amounts of starch.
  - B. Chlorophyll captures the energy of sunlight.
  - C. Stomata move carbon dioxide from the air into the leaves.
  - D. Vascular tissue transports water and nutrients through the plant.

**Hint** Look for a structure that is not found in moss.

12. Some plants are classified as angiosperms. Which of the following distinguish angiosperms?
- A. stomata
  - B. spores
  - C. covered seeds
  - D. vascular tissues

**Hint** Other types of plants include bryophytes, seedless vascular plants, and gymnosperms.

13. The human body shows both specific and nonspecific immune responses. Which of the following is a specific immune response?
- A. T and B cells work together to destroy pathogens.
  - B. Acids and enzymes in sweat kill pathogens on the skin.
  - C. The inflammatory response destroys pathogens at the site of a cut.
  - D. Pathogens in the air get caught in mucous membranes of the nasal passages.

**Hint** The third line of immune defense is specific.

14. In modern taxonomy, there are eight major levels of classification. Which level describes a group of related orders?
- A. class
  - B. genus
  - C. family
  - D. species

**Hint** Where does order fall in the levels of classification?

15. Scientists have observed that almost all organisms translate the genetic information in DNA in a consistent way. What inference do scientists draw from this observation?
- A. All living organisms share a common ancestor.
  - B. All species can interbreed to form new species.
  - C. Genetic information is transferred from one species to another.
  - D. Genetic information does not vary from one organism to another.

**Hint** Genetic information determines the characteristics of an organism. It is passed down from one generation to the next.

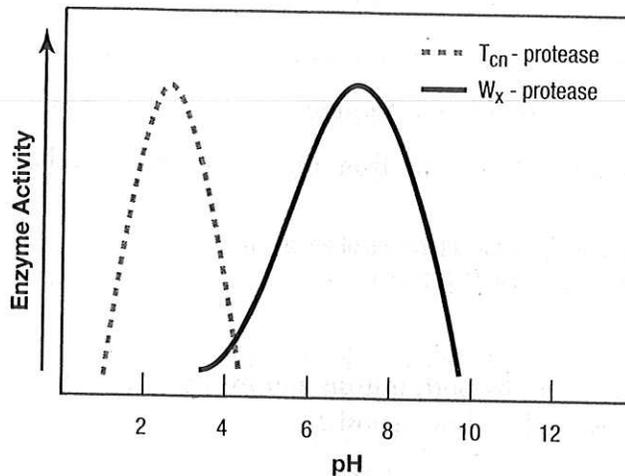
16. Organisms produce new cells by both mitosis and meiosis. How do cells produced by mitosis differ from cells produced by meiosis?
- A. Mitosis produces cells that join in fertilization.
  - B. Mitosis produces twice as many cells as meiosis.
  - C. The cells produced by mitosis are identical to the parent cell.
  - D. Mitosis produces cells that differ genetically from that of the parent cell.

**Hint** There are two types of cells in the human body—somatic cells and gametes.

17. Fish, shrimp, crabs, and other shellfish thrive in estuaries. Which of the following conditions describe an estuary?
- A. low salinity, high nutrient levels, and low oxygen levels
  - B. high salinity, high nutrient levels, and high oxygen levels
  - C. constantly changing salinity, low nutrient levels, and low oxygen levels
  - D. constantly changing salinity, high nutrient levels, and high oxygen levels

**Hint** Estuaries are found near the mouths of rivers.

18. Without enzymes, many biological processes would occur too slowly for life to be possible. The graph below shows the activity of two enzymes at various pH values.



What does the graph indicate about enzymes?

- A. A pH close to 7 is optimal for most enzymes.
- B. Each enzyme functions best within a limited pH range.
- C. The pH of a solution has little effect on the activity of an enzyme.
- D. The activity of an enzyme increases as the pH of a solution increases.

**Hint** Each enzyme is most active at the peak of its curve on the graph. Compare the peaks in terms of pH.

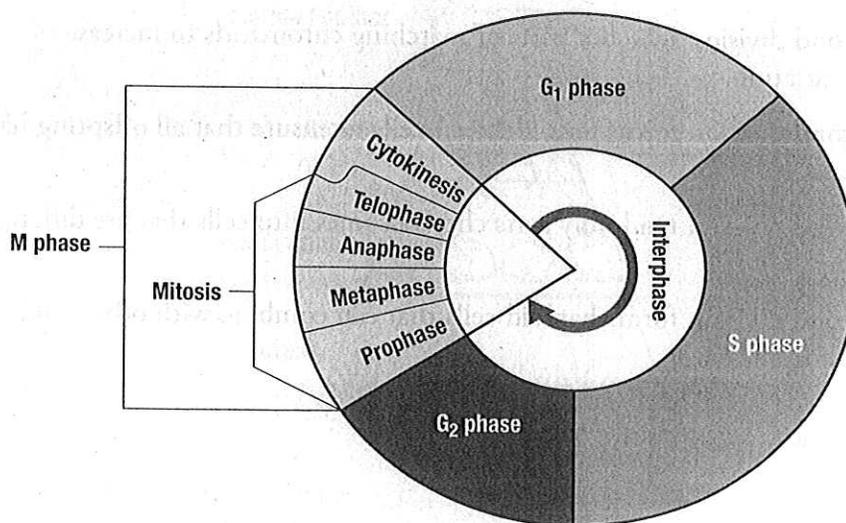
19. The main function of the male reproductive system is to produce and deliver sperm for fertilization. Which of the following gives the path of sperm cells through the male reproductive system?
- A. testicle, epididymis, vas deferens, urethra
  - B. epididymis, testicle, vas deferens, urethra
  - C. testicle, epididymis, urethra, vas deferens
  - D. testicle, vas deferens, epididymis, urethra

**Hint** The vas deferens is a thin tube in the penis.

20. Earth's atmosphere today is very different from its early atmosphere. Which of the following processes changed Earth's early atmosphere, which would poison most organisms alive today, to its current form?
- release of water vapor and carbon dioxide by volcanoes
  - formation of amino acids from simple nonliving molecules
  - photosynthesis by cyanobacteria
  - cellular respiration by eukaryotic cells

**Hint** This process added gases to the atmosphere.

21. A cell forms new cells during the cell cycle. The diagram below summarizes the stages of the cell cycle.

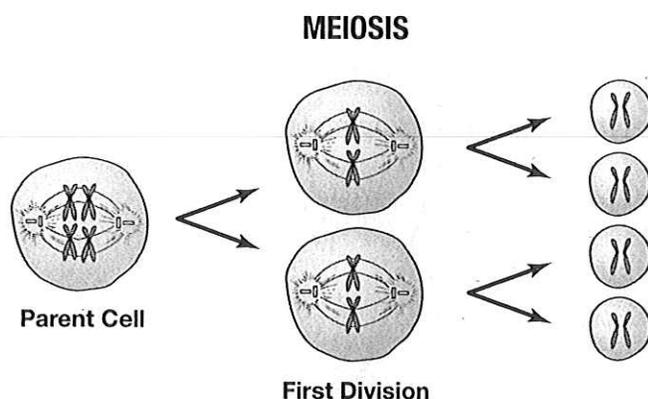


Which of the following occurs during mitosis?

- The cell membrane pinches one cell into two.
- The chromosomes of the parent cell are copied.
- The parent cell takes in nutrients and doubles in size.
- The nucleus of the parent cell divides into two nuclei.

**Hint** A cell spends most of its life in interphase, preparing for the M phase. Notice that mitosis is the major part of the M phase.

22. The illustration below summarizes the formation of sperm cells and egg cells.



Why is it important for the daughter cells to divide a second time?

- A. The second division switches parts of matching chromatids to increase genetic variation.
- B. The second division forms four identical cells to ensure that all offspring have the same traits.
- C. The second division randomly sorts chromosomes into cells that are different from the parent cell.
- D. The second division forms haploid cells that can combine with other haploid cells during fertilization.

**Hint** Two gametes combine during sexual reproduction.

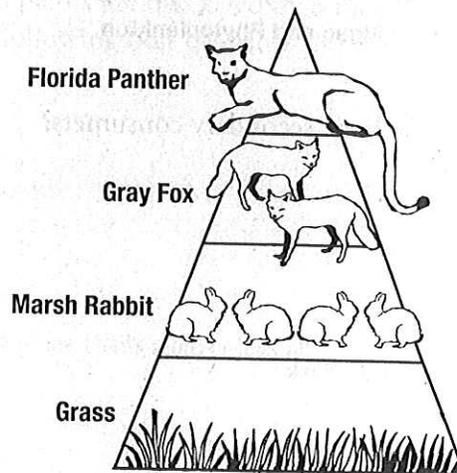
23. Proteins are important molecules in biology. Which of the following describes the structure of a protein?
- A. chain of amino acids
  - B. double layer of fatty acids
  - C. nitrogen base attached to a phosphate group
  - D. carbon, hydrogen, and oxygen atoms in a ratio of 1:2:1

**Hint** Proteins are polymers, which means they are made up of smaller compounds.

24. Eggs are the female reproductive cells. Where in the body are egg cells stored?
- A. cervix
  - B. uterus
  - C. ovaries
  - D. fallopian tubes

**Hint** Where are the eggs in a baby girl when she is born?

25. Energy pyramids show the amount of energy in different trophic levels in an ecosystem. The diagram below is an energy pyramid for the Florida Everglades.

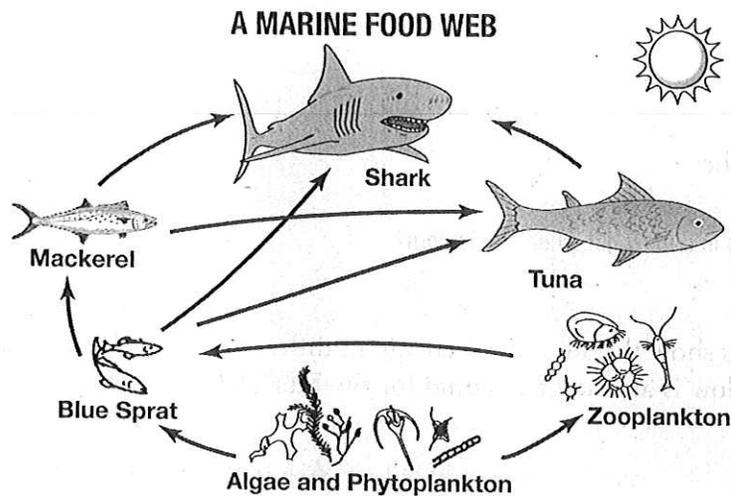


Which level contains the most energy?

- A. grass
- B. gray fox
- C. marsh rabbit
- D. Florida panther

**Hint** Look at the shape of the pyramid.

26. Part of an ocean food web is shown below.



Which of the organisms in the web are secondary consumers?

- A. blue sprat and mackerel
- B. mackerel, tuna, and shark
- C. blue sprat and zooplankton
- D. blue sprat, mackerel, tuna, and shark

**Hint** Trace the energy flow from the producers in this food web.

27. All organisms contain carbon and oxygen. Both of these elements are also found in Earth's atmosphere. Which of the following processes returns oxygen to the atmosphere?

- A. combustion
- B. decomposition
- C. photosynthesis
- D. cellular respiration

**Hint** Plants return oxygen to the atmosphere.

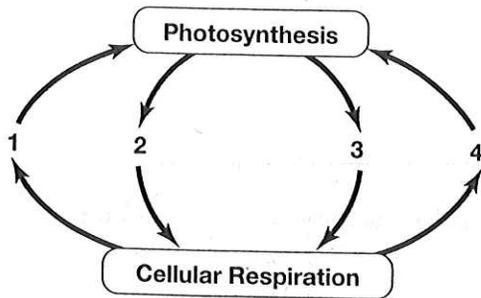
28. In 1859, Charles Darwin published his book *On the Origin of Species by Means of Natural Selection*. Which of the following is part of Darwin's theory of natural selection?
- A. There is little variation within populations.
  - B. Mutations are the cause of differences among organisms.
  - C. There are unlimited resources to support a growing number of organisms.
  - D. Only individuals with variations suitable for their habitat survive and reproduce.

**Hint** Natural selection leads to changes in populations over time.

29. A wildflower population consists of only 20 plants. Ten of these plants have red flowers (genotype  $RR$ ), nine have pink flowers ( $Rr$ ), and only one has white flowers ( $rr$ ). By chance, all ten of the red-flowered plants are destroyed by a rockslide before they have a chance to reproduce. Which of the following best describes this change?
- A. mutation
  - B. gene flow
  - C. genetic drift
  - D. natural selection

**Hint** Having red flowers does not make the plants more or less fit.

For questions 30, 31, and 32, refer to the diagram below.



30. Which statement describes the relationship between photosynthesis and cellular respiration?
- A. Photosynthesis and cellular respiration use the same reactants.
  - B. Photosynthesis and cellular respiration yield the same products.
  - C. The products of photosynthesis are the reactants of cellular respiration.
  - D. Chlorophyll is a reactant of photosynthesis and a product of cellular respiration.

**Hint** Trace the arrows as they point toward and away from each process.

31. The numbers in the diagram represent substances involved in the processes shown. Which of the following matches the numbers with correct labels?
- A. 1 Oxygen, 2 Water, 3 Carbon Dioxide, 4 Glucose
  - B. 1 Oxygen, 2 Water, 3 Glucose, 4 Carbon Dioxide
  - C. 1 Water, 2 Oxygen, 3 Carbon Dioxide, 4 Glucose
  - D. 1 Water, 2 Oxygen, 3 Glucose, 4 Carbon Dioxide

**Hint** Producers, such as green plants, carry out photosynthesis. Think about their role in an ecosystem.

32. Which of these is NOT involved in the processes shown in the diagram?
- A. fermentation
  - B. electron transport
  - C. glycolysis
  - D. Krebs cycle

**Hint** Some cells release energy without using oxygen.

33. Water is one of the most important substances for living things. One property of water that makes life on Earth possible is its high specific heat. How does the high specific heat of water affect the human body?
- A. It moves fluids through arteries and veins.
  - B. It allows lighter materials to float in blood.
  - C. It makes it possible for substances to dissolve in cells.
  - D. It helps the body maintain a constant internal environment.

**Hint** Specific heat is the amount of energy needed to raise the temperature of 1 gram of a substance by 1°C.

34. Adenine triphosphate, or ATP, is a molecule that is essential to processes that occur in cells. Which of the following describes the relationship between ATP and glucose?
- A. ATP molecules combine to form glucose molecules.
  - B. Energy is transferred from glucose to ATP for transport.
  - C. Cells need ATP to break down glucose in order to release energy.
  - D. ATP captures the energy of sunlight and stores it in glucose.

**Hint** ATP can be thought of as an energy currency, while glucose is an energy source.

35. Scientists have developed numerous theories and laws over time. One example is the cell theory. Why is the cell theory considered a theory rather than a law?

- A. It is an explanation rather than a description.
- B. It is well supported by many types of observations.
- C. It has not existed long enough to be considered a law.
- D. It developed through the work of more than one scientist.

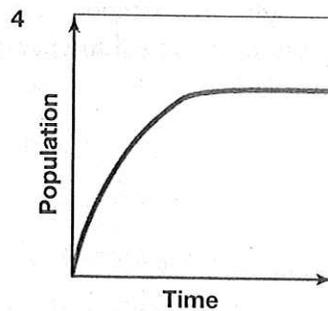
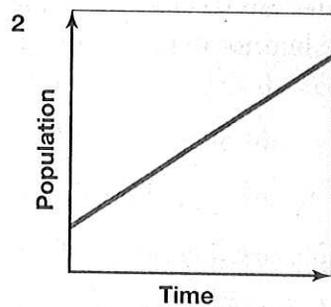
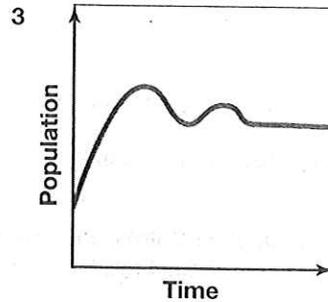
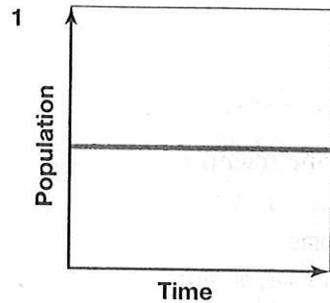
**Hint** Scientific theories do not become laws, and laws do not become theories. They each play a different role in science.

36. With the use of a light microscope, various structures can be observed within cells. Which of the following can be observed in eukaryotic cells but not in prokaryotic cells?

- A. nucleus
- B. ribosome
- C. cytoplasm
- D. cell membrane

**Hint** Plants, animals, protists, and fungi are all eukaryotes. Bacteria and archaea are prokaryotes.

37. The carrying capacity of an ecosystem is different for each species because species' habitats and needs differ. The graphs below show four different bacterial populations over time.



Which bacterial population has NOT yet reached its carrying capacity?

- A. population 1                      C. population 3  
B. population 2                      D. population 4

**Hint** A population stops growing when it reaches the carrying capacity of its ecosystem.

38. A non-native species is introduced into an ecosystem. How might this introduction harm native species in the ecosystem?
- A. It might result in an increase in predation.  
B. It might result in an increase in available prey.  
C. It might result in a decrease in predation.  
D. It might result in a decrease in pathogens.

**Hint** A non-native species is also known as an invasive species.

39. In pea plants, the gene for purple flowers is dominant over the gene for white flowers. The Punnett square below shows a cross between two pea plants with purple flowers.

	<i>P</i>	<i>p</i>
<i>P</i>	<i>PP</i>	<i>Pp</i>
<i>p</i>	<i>Pp</i>	<i>pp</i>

What are the probable flower colors of the plants produced by this cross?

- A. 100% purple
- B. 100% white
- C. 50% purple and 50% white
- D. 75% purple and 25% white

**Hint** What genotype(s) produce purple flowers?

40. The gene for eye color in fruit flies is on the X chromosome. The gene for red eyes is dominant over the gene for white eyes. A white-eyed female fruit fly mates with a red-eyed male fruit fly. What color eyes will the sons and daughters have?
- A. All the offspring will have red eyes.
  - B. All the offspring will have white eyes.
  - C. All sons will have red eyes, and all daughters will have white eyes.
  - D. All daughters will have red eyes, and all sons will have white eyes.

**Hint** Females have two X chromosomes. Males have an X chromosome and a Y chromosome.

41. Carbohydrates make up a large category of important biological molecules. Which of the following describes a role of carbohydrates in most organisms?
- A. They serve as insulation.
  - B. They carry genetic information.
  - C. They act as a primary source of energy.
  - D. They provide building and connecting material.

**Hint** Starches and sugars are examples of carbohydrates.

42. Deforestation of an area can reduce precipitation. Which of the following is a possible cause for this change?
- A. a decrease in evaporation
  - B. an increase in evaporation
  - C. a decrease in transpiration
  - D. an increase in transpiration

**Hint** Deforestation is the removal of all the trees in a forest.

43. Which of these is the **best** reason for using wind farms to produce electrical power?
- A. The use of wind farms makes electricity less expensive.
  - B. The use of wind farms conserves nonrenewable fuels.
  - C. Wind farms have little environmental impact.
  - D. Wind farms are suitable for most locations.

**Hint** Most forms of renewable energy have costs as well as benefits.

44. DNA codes for 20 different amino acids. How these amino acids combine determines the shape and function of the proteins they form. Which process decodes genetic information to arrange amino acids?
- A. transfer
  - B. regulation
  - C. translation
  - D. transcription

**Hint** To make proteins, a cell needs to get information from the DNA in the nucleus to the ribosomes in the cytoplasm.

45. Some ocean organisms, such as kelp and sea stars, live on or near the ocean bottom. These organisms are classified as which of the following?
- A. nekton
  - B. archaea
  - C. benthos
  - D. plankton

**Hint** Nekton are free-swimming organisms that can move independently of currents.

46. The gestation of an embryo occurs in stages. Which of the following is the correct order of the stages of gestation?
- A. blastula, gastrula, zygote, fetus
  - B. zygote, blastula, gastrula, fetus
  - C. zygote, gastrula, blastula, fetus
  - D. gastrula, blastula, zygote, fetus

**Hint** When two gametes join, they form a zygote.

47. Different ecosystems can support different numbers of organisms. Which of the following is the number of individuals of a species that a particular ecosystem can support?
- A. population
  - B. community
  - C. biotic potential
  - D. carrying capacity

**Hint** This term refers to individuals of one species, not the total number of organisms in the ecosystem.

48. The growth of populations is limited by factors in the ecosystem. Which of the following is an abiotic limiting factor?
- A. parasites
  - B. pathogens
  - C. predators
  - D. soil nutrients

**Hint** Abiotic factors are nonliving.

49. Multicellular organisms grow by making more cells, rather than by making their existing cells bigger. DNA replication is one step in the process of creating more cells. What happens during DNA replication?

- A. A cell's DNA is copied before the cell divides.
- B. Genes are turned on or off in a cell.
- C. The information encoded in DNA is used to form proteins.
- D. The instructions in DNA are copied to a complementary strand of DNA.

**Hint** DNA replication occurs before transcription and translation.

50. Unlike animal cells, plant cells have a large central vacuole. How does a vacuole support plant structures?

- A. It fills with liquid, creating pressure that helps support the cell.
- B. It releases materials into the air that decrease the weight of the cell.
- C. It contains genetic information that controls the activities of the plant.
- D. It forms a rigid substance called cellulose that supports the plant.

**Hint** Vacuoles resemble balloons inside the cell.

51. The table below lists several discoveries related to the cell theory.

### THE DEVELOPMENT OF CELL THEORY

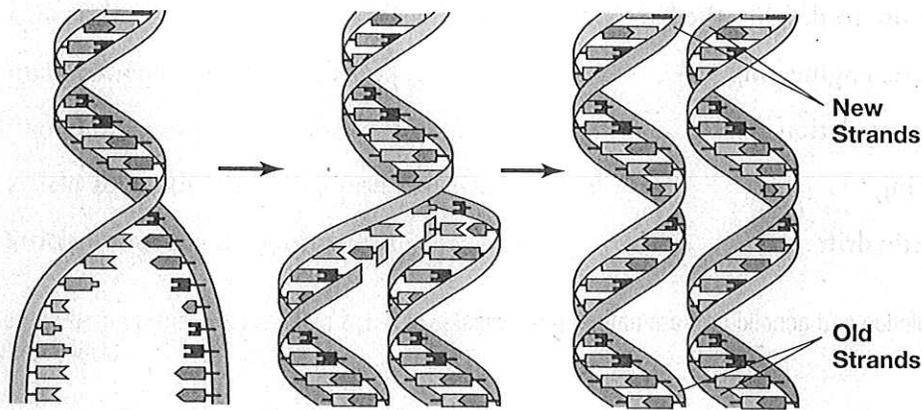
Date	Discovery
1665	Robert Hooke coins the term <i>cell</i> using a primitive microscope to observe a slice of cork.
1670	Anton van Leeuwenhoek observes living cells with the first true microscope.
1838	Matthias Schleiden concludes that all plants are made of cells and that they grow by making more cells.
1839	Theodor Schwann concludes that all animals are made of cells and that they grow by making more cells.
1855	Rudolf Virchow concludes that cells develop only from existing cells.

What does the information in this table suggest about the process of science?

- A. Making scientific discoveries takes hundreds of years.
- B. Scientists work to protect their investigations from repetition.
- C. Scientists commonly propose theories after each investigation.
- D. Scientific theories are based on evidence from many investigations.

**Hint** Consider how the work of each scientist relates to the cell theory.

52. The diagram below shows DNA replication.



Which of the following statements about the process shown is true?

- A. Two new molecules form that are identical to the original molecule.
- B. Two new molecules form that are different from the original molecule.
- C. The original molecule is rearranged into one new molecule.
- D. Two new molecules form, one of which is identical to the original molecule.

**Hint** A DNA molecule is made up of two strands of nucleotides joined together like a spiral staircase.

53. Any change to an organism's genetic material is called a mutation. Which of the following describes a nondisjunction mutation?

- A. A single nucleotide base is deleted.
- B. One base replaces another base in a DNA chain.
- C. A DNA chain breaks off and reattaches in the opposite direction.
- D. Chromosomes fail to separate completely during the formation of gametes.

**Hint** Down syndrome is an example of a human disorder caused by a disjunction mutation. A person with Down syndrome has an extra copy of a chromosome.

54. Many people with diabetes must inject the hormone insulin because their bodies cannot make it. Scientists have developed bacteria that produce human insulin. Which process did scientists use to develop the bacteria?

- A. genetic engineering
- B. gene regulation
- C. cloning
- D. genetic drift

**Hint** Gene regulation and genetic drift are natural processes.

55. The sun is a major source of ultraviolet radiation. This radiation can cause mutations in the genes that control the rate of the cell cycle. How might these mutations affect a person?

- A. The person's offspring will have abnormal skin cells.
- B. The cell cycle will stop in the affected person's skin cells.
- C. The person's skin cells will no longer carry genetic information.
- D. The cell cycle in some of the person's skin cells will be faster than normal.

**Hint** The cell cycle describes the process through which cells divide.

56. When doing research, it is important to remember that not all scientific literature is equally valid. Which of the following would be the most reliable source of information about a cancer drug?
- A. a cancer patient's blog about using the drug
  - B. a drug company's press release about the drug
  - C. an article about the drug in a peer-reviewed journal
  - D. an article about the drug in a health magazine

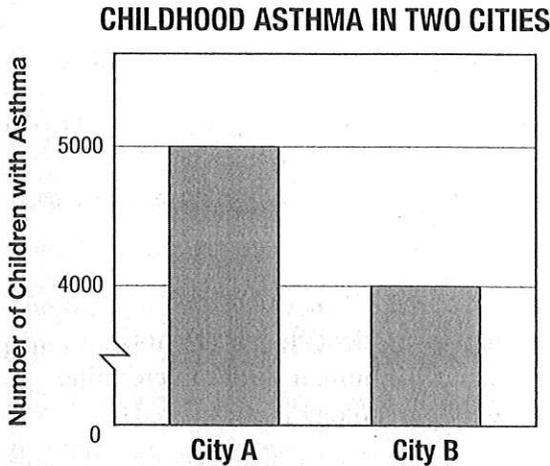
**Hint** Press releases from businesses are often trying to sell the company's products.

57. The term *pseudoscience* describes ideas or theories that seem scientific but are not. Phrenology is the practice of using the measurements of the human skull to determine personality traits. Which of the following explains why phrenology is considered a pseudoscience?
- A. Conflicting evidence is taken into account.
  - B. Only facts that support the theory are considered.
  - C. The emphasis is on controlled, repeatable experiments.
  - D. It is impossible to measure the human skull accurately.

**Hint** Scientists evaluating a theory consider all evidence.

For questions 58, 59, and 60, refer to the following passage and graph.

A group of scientists has collected data about breathing problems in two cities. About the same number of people live in each city. The bar graph below shows the number of children in each city who have been diagnosed with asthma.



The scientists want to test the hypothesis that something in the environment in City A is causing the higher rate of asthma in children. They recruit families for a study of asthma in children ages 10–12. The children are divided into three groups. The first group is sent to a summer camp in the country for eight weeks. The second group is sent to a camp in City B for eight weeks. Children in the third group are sent to day camps in their own neighborhoods. A nurse at each camp keeps a record of any reported breathing problems. At the end of the summer, the scientists will compare the rates of asthma symptoms in each group of children.

58. The scientists want to extend the investigation to explain the data in the graph. Which question would be **most** useful in determining how environmental factors affect asthma rates?
- A. How many of the children's parents have asthma?
  - B. What is the level of air pollution in each city?
  - C. How many hospitals in each city treat children with asthma?
  - D. How many of the children with asthma take allergy medication?

**Hint** The scientists are studying possible causes of asthma.

59. What is the independent variable in the experiment involving children?

- A. the ages of the children with asthma
- B. the severity of the asthma symptoms
- C. the number of children with asthma
- D. where the children spend the summer

**Hint** The experiment is studying the effects of changing the independent variable.

60. What is the control group in the experiment involving children?

- A. the group of children without asthma
- B. the group of children sent to city B
- C. the group of children sent to the country
- D. the group of children who stay home

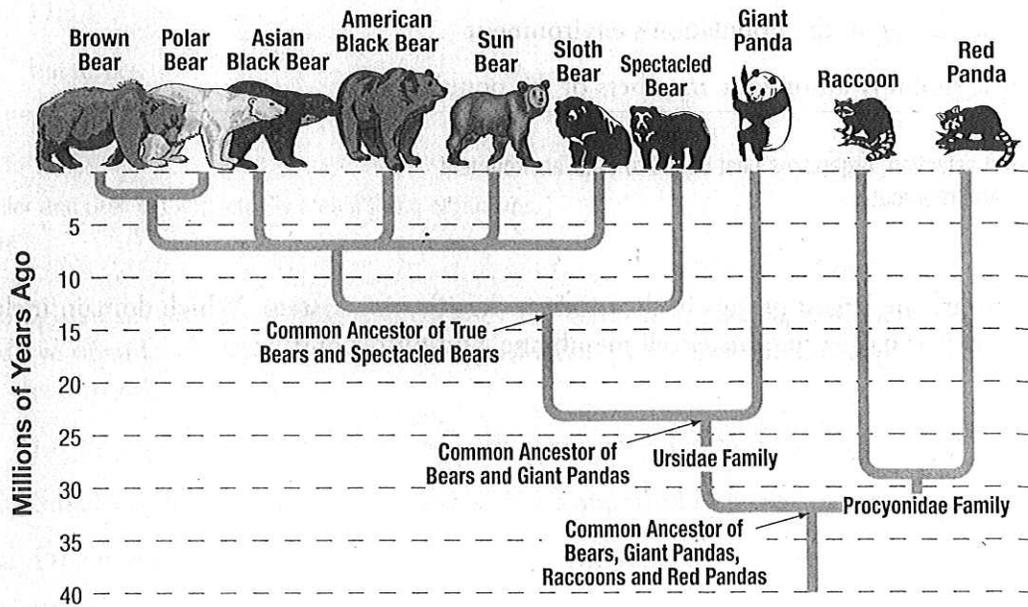
**Hint** The control group is used as a basis to compare results.

61. Humans belong to the hominid family of species, most of which are now extinct. One of the earliest hominids was *Australopithecus afarensis*. The bones of this species suggest that it walked upright on two legs (bipedalism). What inference can be made from this observation?

- A. Bipedalism evolved before hominid cranial capacity increased.
- B. The ability to make tools evolved along with bipedalism.
- C. *Australopithecus afarensis* had a large brain and made tools.
- D. *Australopithecus afarensis* was about as tall as later hominids.

**Hint** Bipedalism can be a useful trait for organisms of many different sizes.

62. The phylogenetic tree below shows the evolutionary relationships among bears and related species. It is based on DNA and anatomical evidence. The longer ago species shared a common ancestor, the more differences they are likely to have in their DNA.



According to the phylogenetic tree, which of the following pairs of species is most distantly related?

- A. raccoon and red panda
- B. sun bear and giant panda
- C. raccoon and spectacled bear
- D. brown bear and spectacled bear

**Hint** Organisms that are distantly related have more differences in their DNA than organisms that are closely related.

63. Which of the following is **most likely** to lead to natural selection in a population?

- A. abundant resources in the population's environment
- B. many genetic variations among the members of the population
- C. little change in the population's environment
- D. little mobility among the members of the population

**Hint** In natural selection, organisms best suited to their environment survive and reproduce.

64. Domains are the largest groups in the modern classification system. Which domain includes organisms that have a nucleus, a cell membrane, and mitochondria?

- A. Archaea
- B. Eukarya
- C. Prokarya
- D. Animalia

**Hint** Bacteria cells lack a nucleus.

Coached Test

65. Miller and Urey performed experiments that showed how life could have formed in Earth's early atmosphere. Which of the following did the Miller-Urey experiments produce?
- A. cells
  - B. DNA
  - C. bacteria
  - D. molecules

**Hint** Miller and Urey did not actually create living organisms.

66. Biologists use compound light microscopes and electron microscopes to better observe organisms. What is one advantage of a compound light microscope over an electron microscope?
- A. Living organisms can be observed with a compound light microscope.
  - B. Smaller structures can be observed with a compound light microscope.
  - C. Prokaryotes can be observed with a compound light microscope
  - D. Preserved specimens can be observed with a compound light microscope.

**Hint** An electron microscope is much more powerful than a compound light microscope.