

- 1 Unlike Hooke, Leeuwenhoek observed cells that
- A had no cell walls.
  - B came from plants.
  - C were alive.
  - D could only be seen with a compound microscope.
- 2 What is the function of a cell wall?
- A to protect and support the cell
  - B to perform different functions in each cell
  - C to prevent water from passing through it
  - D to prevent oxygen from entering the cell
- 3 Which organelle is the control center of a cell?
- A mitochondrion
  - B ribosome
  - C nucleus
  - D chloroplast
- 4 A substance that cannot be broken down into simpler elements is a(n)
- A particle.
  - B element.
  - C carbohydrate.
  - D compound.
- 5 Enzymes are important because they
- A contain water.
  - B speed up chemical reactions.
  - C contain genetic material.
  - D help the cell maintain its shape.

- 6 Sugar molecules can combine with one another to form large molecules called
- A proteins.
  - B starches.
  - C enzymes.
  - D lipids.
- 7 Which term refers to the diffusion of water molecules through a selectively permeable membrane?
- A osmosis
  - B engulfing
  - C active transport
  - D facilitated transport
- 8 Specialized cells are found only in
- A animals.
  - B single-celled organisms.
  - C bacteria.
  - D many-celled organisms.
- 9 How does magnification occur in an electron microscope?
- A An electron beam creates an image.
  - B An electron beam makes the object become larger.
  - C Light is changed into electrons by a convex lens.
  - D Light is reflected by an electron beam.
- 10 The invention of the microscope made it possible for people to discover
- A plants.
  - B skin.
  - C animals.
  - D cells.

- 11 Which of the following statements is part of the cell theory?
- A Only plants are composed of cells.
  - B All cells are produced from other cells.
  - C Cells can be produced from nonliving matter.
  - D Cells are one of several basic units of structure and function in living things.
- 12 What does the term *resolution* refer to?
- A how well structures close together can be distinguished
  - B how large an image can be
  - C how many lenses a microscope uses
  - D how much light is needed to see an image
- 13 What is the function of a cell membrane?
- A to support the cell
  - B to perform different functions in each cell
  - C to control which substances enter and leave the cell
  - D to form a hard outer covering for the cell
- 14 Which of the following **best** describes the function of mitochondria?
- A They convert energy from food molecules into energy the cell can use.
  - B They store energy from food molecules.
  - C They store energy from sunlight.
  - D They produce nucleic acids that release energy.
- 15 Cells in many-celled organisms
- A all look the same.
  - B all have the same structure.
  - C are often quite different from each other.
  - D are the same size in every part of the organism.

- 16 Which term refers to the movement of molecules from an area of higher concentration to an area of lower concentration?
- A collision
  - B diffusion
  - C active transport
  - D concentration
- 17 Which term refers to the movement of materials through a cell membrane without using the cell's energy?
- A concentration
  - B collision
  - C active transport
  - D passive transport
- 18 Which term refers to the movement of materials through a cell membrane when the cell's energy is required?
- A osmosis
  - B diffusion
  - C active transport
  - D passive transport
- 19 Unlike the cell wall, the cell membrane
- A is found in all cells.
  - B is made of chromatin.
  - C protects the nucleus with a rigid layer of cellulose.
  - D produces energy for the cell.
- 20 Which organelles store food and other materials needed by the cell?
- A mitochondria
  - B chloroplasts
  - C ribosomes
  - D vacuoles

- 21 Which organelles release chemicals that break down large food particles into smaller ones?
- A endoplasmic reticulum
  - B Golgi bodies
  - C lysosomes
  - D vacuoles