

Section A: Multiple Choice

What is the primary function of mitochondria in a cell?

- a) Protein synthesis
- b) Energy production
- c) Storage of genetic information
- d) Cellular transport

Which of the following is a monosaccharide?

- a) Glucose
- b) Sucrose
- c) Starch
- d) Cellulose

In the process of photosynthesis, what gas is taken in by plants and converted into oxygen and glucose?

- a) Oxygen
- b) Carbon dioxide
- c) Nitrogen
- d) Hydrogen

What is the purpose of the circulatory system in the human body?

- a) To facilitate breathing
- b) To digest food
- c) To transport blood throughout the body
- d) To regulate body temperature

Which of the following is a function of the nervous system?

- a) Regulation of hormones
- b) Support and protection of body organs
- c) Control of voluntary and involuntary actions

d) Oxygen transport

Section B: True or False

6. True or False: DNA is a double-stranded molecule that contains the genetic code.

True or False: Antibiotics are effective against viral infections.

True or False: All living organisms are composed of cells.

Section C: Short Answer

9. Explain the process of osmosis.

Name two types of white blood cells and briefly describe their functions.

Section D: Matching

Match the cell organelle with its function.

A. Nucleus

B. Chloroplast

C. Ribosome

D. Mitochondria

Site of protein synthesis

Contains DNA and controls cell activities

Converts light energy into chemical energy (photosynthesis)

Produces ATP for cellular energy

Section E: Fill in the Blank

15. The process by which green plants use sunlight to synthesize food is called _____.

The basic unit of heredity in living organisms is the _____.

The type of cell division that produces gametes (sperm and egg) is called _____.

The fluid-filled sac that surrounds and protects the developing embryo in many animals is called the _____.