

Time : 1 hour 30 Minute

STD 9 Science
Chapter Based Test

Total Marks : 50

section A

* Choose the correct option from the given options [7]

- The proteins and lipids, essential for building the cell membrane, are manufactured by:
(A) Rough endoplasmic reticulum. (B) Golgi apparatus. (C) Plasma membrane. (D) Mitochondria.
- If two solution have the same osmolarity, they are said to be:
(A) Hypertonic. (B) Hypotonic. (C) Isotonic. (D) None of the above.
- Which of the following would not be considered part of a cell's cytoplasm:
(A) Ribosome (B) Nucleus (C) Mitochondrion (D) Microtubule
- Differentiate between prokaryotic and eukaryotic cells:
(A) Prokaryotic- have no membrane bound organelles, eukaryotic- have no membrane bound organelles
(B) Prokaryotic- have no membrane bound organelles, eukaryotic- have membrane bound organelles
(C) Prokaryotic- have nucleoid, eukaryotic- have nucleus
(D) Both B and C
- Nucleolemma is a part of:
(A) Nuclear membrane (B) Nuclear reticulum (C) Nucleolus (D) Nucleoplasm
- A cell will swell up if:
(A) The concentration of water molecules in the cell is higher than the concentration of water molecules in surrounding medium.
(B) The concentration of water molecules in surrounding medium is higher than water molecules concentration in the cell.
(C) The concentration of water molecules is same in the cell and in the surrounding medium.
(D) Concentration of water molecules does not matter.
- The food engulfed as food vacuole by Amoeba is digested with the help of enzymes in the:
(A) Ribosomes. (B) SER. (C) Lysosomes. (D) Contractile vacuole.

* Fill in the blank with correct answer [3]

- Name the organelles which show the analogy written as under

Digestive bag of the cell __

9. The term protoplasm was coined by _____.
10. Name the organelles which show the analogy written as under
Packaging and dispatching unit of the cell __

*** Do as directed**

[3]

11. Name the two nucleic acids present in a cell.
12. Name the process by which CO₂ is removed from the cell.
13. What is the function of lignin deposition in cell wall?

section B

*** Answer the Questions in brief**

[10]

1. Enumerate functions of plasma membrane.
2. What structures are involved in the formation of chromatin?
3. Fill in the blanks to complete the statement.
During _____, the lysosomes digest stored food contents by _____ to supply energy to the cell.
4. Lysosomes are also called digestive bags. Why?
5. Why do plant cells possess large sized vacuole?

section C

*** Answer the Questions in detail**

[12]

1. What will happen if:
Excess amount of fertilisers is added to a green lawn?
2. Write the help of a labelled diagram describe the structure of a chloroplast.
3. Distinguish between prokaryotic and eukaryotic cells.
4. Write down differences between nucleus and nucleoid.

section D

*** Answer the Questions in detail [5 marks each]**

[15]

1. Draw and label a plant cell. Write the main function of:
 - i. Chloroplast.
 - ii. Plasma membrane.
 - iii. Cell wall.
 - iv. Lysosomes.
 - v. Chromosomes.
2. Draw a neat labelled diagram of an animal cell.
3. Discuss the structure and functions of mitochondria.
