

Chapter- 1

Worksheet-1

1. Assertion (A): The outer membrane of mitochondria is folded into cristae.

Reason (R): Cristae increases the surface area.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

2. Storage sacs of the cell is _____.

3. $1\ \mu\text{m}$ is

- (a) $10^{-6}\ \text{m}$ (b) $10^{-9}\ \text{m}$ (c) $10^{-10}\ \text{m}$ (d) 10^{-3}

4. Lysosome arises from

- (a) endoplasmic reticulum (b) golgi apparatus (c) nucleus (d) mitochondria

5. Living cells were discovered by

- (a) Robert Hooke (b) Purkinje (c) Leeuwenhoek (d) Robert Brown

6. Select the odd one out.

(a) The movement of water across a semipermeable membrane is affected by the amount of substances dissolved in it.

(b) Membranes are made of organic molecules like proteins and lipids.

(c) Molecules soluble in organic solvents can easily pass through the membrane.

(d) Plasma membranes contain chitin sugar in plants.

7. Organelle other than nucleus, containing DNA is

(a) endoplasmic reticulum

(b) Golgi apparatus

(c) mitochondria

(d) lysosome

8. Chromosomes are made up of

(a) DNA (b) protein (c) DNA and protein (d) RNA

9. Cell wall of which one of these is not made up of cellulose?

(a) Bacteria (b) Hydrilla (c) Mango tree (d) Cactus

10. Cell arises from pre-existing cell was stated by

(a) Haeckel (b) Virchow (c) Hooke (d) Schleiden

11. What is plasmolysis?

12. What is the function of vacuoles?
13. What is nucleoid?
14. What are ribosomes? Where are they located in the cell?
What is their function?
15. What is membrane biogenesis?
16. Which organelle is known as powerhouse of the cell?
17. Do you agree “A cell is a building unit of an organism”? If yes, explain why.
18. How is bacterial cell different from onion peel?
19. Define the following:
 - (a) Hypotonic solution
 - (b) Hypertonic solution
 - (c) Isotonic solution
20. Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis?