

**Chapter- 1**  
**Worksheet-3**

1. Assertion (A): Plant cells have a single large vacuole.

Reason (R): Vacuole is responsible for ingestion of food substance.

- (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. Cell theory was proposed by \_\_\_\_\_ and \_\_\_\_\_.

3. \_\_\_\_\_ are known as powerhouses of the cell.

4. Amoeba obtain its food by the process of \_\_\_\_\_.

5. 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.

6. The proteins essential for building the cell membrane, are manufactured by
- (a) rough endoplasmic reticulum
  - (b) Golgi apparatus
  - (c) plasma membrane
  - (d) mitochondria
7. Organelle without a cell membrane is
- (a) ribosome (b) golgi apparatus (c) chloroplast (d) nucleus
8. Which cell organelle plays a crucial role in detoxifying many poisons and drugs in a cell?
- (a) Golgi apparatus
  - (b) Lysosomes
  - (c) Smooth endoplasmic reticulum
  - (d) Vacuoles
9. Following are a few definitions of osmosis. Read carefully and select the correct definition.
- (a) Movement of water molecules from a region of higher concentration to a region of lower concentration through a semipermeable membrane.
  - (b) Movement of solvent molecules from its higher concentration to lower concentration.
  - (c) Movement of solvent molecules from higher concentration to lower concentration of solution through a permeable membrane.

(d) Movement of solute molecules from lower concentration to higher concentration of solution through a semipermeable membrane.

10. The cell organelle involved in forming complex sugars from simple sugars are

- (a) endoplasmic reticulum
- (b) ribosomes
- (c) plastids
- (d) Golgi apparatus

11. Which division is called as equational division?

12. State two conditions required for osmosis.

13. Give the function of nuclear membrane.

14. When we put raisins in water, why do they swell?

15. Why are lysosomes called suicidal bags?

16. Explain the structure and function of Golgi bodies.

17. What is the difference in chromatin, chromosomes and gene?

18. Why do plant cells possess large sized vacuole?

19. There would be no plant life if chloroplasts did not exist. Justify.
20. Make a comparison and write down ways in which plant cells are different from animal cells.

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