

Cell The Unit Of Life

CHAPTER-8

EXERCISES

1. Which of the following is not correct?
 - (a) Robert Brown discovered the cell.
 - (b) Schleiden and Schwann formulated the cell theory.
 - (c) Virchow explained that cells are formed from pre-existing cells.
 - (d) A unicellular organism carries out its life activities within a single cell.
2. New cells generate from
 - (a) bacterial fermentation
 - (b) regeneration of old cells
 - (c) pre-existing cells
 - (d) abiotic materials
- * 3. Match the following

(a) Cristae	(i) Flat membranous sacs in stroma
(b) Cisternae	(ii) Infoldings in mitochondria
(c) Thylakoids	(iii) Disc-shaped sacs in Golgi apparatus
4. Which of the following is correct:
 - (a) Cells of all living organisms have a nucleus.
 - (b) Both animal and plant cells have a well defined cell wall.
 - (c) In prokaryotes, there are no membrane bound organelles.
 - (d) Cells are formed *de novo* from abiotic materials.
- * 5. What is a mesosome in a prokaryotic cell? Mention the functions that it performs.
6. How do neutral solutes move across the plasma membrane? Can the polar molecules also move across it in the same way? If not, then how are these transported across the membrane?
7. Name two cell-organelles that are double membrane bound. What are the characteristics of these two organelles? State their functions and draw labelled diagrams of both.
- * 8. What are the characteristics of prokaryotic cells.
9. Multicellular organisms have division of labour. Explain.
10. Cell is the basic unit of life. Discuss in brief.
- * 11. What are nuclear pores? State their function.
12. Both lysosomes and vacuoles are endomembrane structures, yet they differ in terms of their functions. Comment.
13. Describe the structure of the following with the help of labelled diagrams.
 - (i) Nucleus
 - (ii) Centrosome
- * 14. What is a centromere? How does the position of centromere form the basis of classification of chromosomes. Support your answer with a diagram showing the position of centromere on different types of chromosomes.