Chapter- 08

CELL: THE UNIT OF LIFE

VERY SHORT ANSWER QUESTIONS (1 mark)

01. Define a cell.
02. Name two scientists who proposed cell theory.
03. Define cytoskeleton.
04. What is the satellite?
05. Name two non membrane bound organelles.
06. Define thylakoids.
07. What is the function of the nucleolus?
08. Why are mitochondria called the powerhouse of the cell?
09. What do you mean by the 70s and 80s ribosomes?
10. What is the importance of vacuoles in Amoeba? Where do you find gas vacuole?

SHORT ANSWER TYPE QUESTIONS (2 marks)

11. What is ominis cellula-e-cellula and who proposed it? Mention two postulates of cell theory.
12. What is a plasmid? Write its role in bacteria.
13. What are contractile and food vacuoles?
14. Write notes upon polysome and inclusion bodies.
15. What is ER? Based on their function enlist its types.
16. Discuss the structure and function of Golgi bodies.
17. Draw a neat labelled diagram of the chloroplast.

SHORT ANSWER TYPE QUESTIONS (3 marks)

18. Write the role of given words: (a) Glycocalyx (b) Mesosome (c) Fimbriae (d) Slime layer
19. What is the benefit of cell walls in plant cells?
20. Define middle lamella and write its function.
21. Taking pigment and stored food into account write the types of plastids.
22. Differentiate between prokaryotic and eukaryotic cells.

23. Write the structure of the flagellum with a diagram.
24. Compare a plant cell with an animal cell.

LONG ANSWER TYPE QUESTIONS (5 marks)

25. What is centromere? How does the position of centromeres form the basis of the classification of chromosomes? Support your answer with a diagram showing the position of the centromere on different types of chromosomes.
26. Describe the cilia and flagella of the eukaryotic cells. How are the flagella of eukaryotes different from those of prokaryotic cells?
27. Write the structure and function of the nucleus in detail with the diagram.

HOTS/ MODEL QUESTIONS:

01. What is an asymmetric karyotype?
02. Show four points of difference between passive and active transport.
03. Multicellular organisms have a division of labour. Explain.
04. What is the nucleoplasm? State its role in the nucleus.
05. On what basis can we consider the cell as an autonomous unit?
06. What is meant by centrosome and how they form spindle fibres?
07. Give the difference between cell walls of Gram-positive and Gram-negative bacteria?
08. Explain the fluid mosaic model.
09. Draw a labelled diagram of animal cells.
10. Why mitochondria are called semiautonomous organelles.
11. What is the significance of the presence of naked DNA in mitochondria?
12. What are pinocytosis and phagocytosis?
13. Distinguish between
(a) Chromatic and Chromosome
(b) Microtubules and microfilament.
14. Explain the structure and function of plasmodesmata.

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16. Name any two main constituents of the plasma membrane and show how they are arranged using a diagram.

17. Define totipotency.

18. Name the enzymes present in peroxisomes.

19. Which cell organelle functions as the 'Segregation apparatus"?

20. Name the largest single cell.

21. What is the composition of the plasma membrane of a human erythrocyte?

22. Differentiate between SER and RER.

23. The plasma membrane is described as a 'Protein iceberg in a sea of lipids". Why?