BIOLOGY

BOOKS - MBD -HARYANA BOARD

THE FUNDAMENTAL UNIT OF LIFE

Example

1. Who discovered cells, and how?

Watch Video Solution

2. Why is cell called 'the structural and functional unit of life'?

Watch Video Solution

3. How do substances like CO_2 and water move in and out of the cell? Discuss

Watch Video Solution

4. Why is the plasma membrane called a selectively permeable membrane

Watch Video Solution

5. Fill in the gaps in the following table illustrating differences between prokaryotic and eukaryotic cells.

S. No.	Prokaryotic cell	Eukaryotic cell
(i)	Size : generally small (1 – 10 µm).	Size : generally large (5 – 100 µm).
(ii)	Nuclear region : _____ _____ and known as_____	Nuclear region : well defined and surrounded by a nuclear membrane.
(iii)	Chromosome : single	More than one chromosome
(iv)	Membrane bound cell organelles absent.	_____ _____

Watch Video Solution

6. Can you name the two organelles we have studied that contain their own genetic material?

Watch Video Solution

7. If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen?

Watch Video Solution

8. Why are lysosomes called 'suicidal bags' ?

Watch Video Solution

9. Where are proteins synthesised inside the cell?

Watch Video Solution

10. Make a comparison and write down ways in which plant cells are different from animal

cells.

Watch Video Solution

11. How is a prokaryotic cell different from a eukaryotic cell?

Watch Video Solution

12. What would happen if the plasma membrane ruptures or breaks down?

Watch Video Solution

13. What would happen to the life of a cell if there was no Golgi apparatus

Watch Video Solution

14. Which organelle is known as the powerhouse of the cell? Why?

Watch Video Solution

15. Where do the lipids and proteins constituting the cell membrane get synthesised?

Watch Video Solution

16. How does an Amoeba obtain its food?

Watch Video Solution

17. What is osmosis?

Watch Video Solution

18. Describe the structure of the plant cell.

Watch Video Solution

19. Draw a well labelled diagram of ultrastructure of plant cell.

Watch Video Solution

20. Describe the structure of nucleus. Write its functions.

Watch Video Solution

21. Write short notes on :Chloroplast

Watch Video Solution

22. Write short notes on : Endoplasmic reticulum

Watch Video Solution

23. Write short notes on : Golgi bodies

Watch Video Solution

24. Discuss the structure and functions of mitochondria.

Watch Video Solution

25. Write a note on prokaryotic cell.

Watch Video Solution

26. Write a short note on eukaryotic cell.

Watch Video Solution

27. Draw the ultrastructure of a typical animal cell.

Watch Video Solution

28. What is cell and cell theory ?

Watch Video Solution

29. What is prokaryotic cell ?

Watch Video Solution

30. What is a eukaryotic cell ?

Watch Video Solution

31. Explain structural and functional organisation of unicellular and multicellular organism

Watch Video Solution

32. What do you mean by : Organelle

Watch Video Solution

33. What do you mean by : Inclusions

Watch Video Solution

34. Distinguish between cell wall and cell membrane.

Watch Video Solution

35. Name the two nucleic acids present in cell.

Watch Video Solution

36. Why are the mitochondria called power houses of the cell?

Watch Video Solution

37. Explain lysosomes.

Watch Video Solution

38. List the functions of a vacuole.

Watch Video Solution

39. What is centrosome ? List two functions of centrosome

Watch Video Solution

40. Differentiate smooth endoplasmic reticulum (SER) and rough endoplasmic reticulum (RER).

Watch Video Solution

41. What are ribosomes ? Write their kinds and chemical composition.

Watch Video Solution

42. Write functions of cell wall.

Watch Video Solution

43. Give the functions of plasma membrane.

Watch Video Solution

44. Define the following : Cytoplasm

Watch Video Solution

45. Define the following : Hyaloplasm

Watch Video Solution

46. Define the following : Nucleoplasm.

Watch Video Solution

47. State the differences between cilia and flagella.

Watch Video Solution

48. State the differences between grana and stroma.

Watch Video Solution

49. Write functions of cell wall.

Watch Video Solution

50. How will you examine cells of onion peel.

Watch Video Solution

51. What are possible shapes of cells ? Explain with simple sketches.

Watch Video Solution

52. Differentiate between diffusion and osmosis.

Watch Video Solution

53. Which organelle is called as protein factory of the cell ?

Watch Video Solution

54. Differentiate Ribosome and Lysosome.

Watch Video Solution

55. What are plastids ? Name its three types.

Watch Video Solution

56. Write functions of plastids.

Watch Video Solution

57. What are the functions of lysosomes?

Watch Video Solution

58. Name the various organelles of cell and mention the most important function of each.

Watch Video Solution

59. Differentiate cytoplasm and nucleoplasm.

Watch Video Solution

60. What will happen to a cell if its nucleus is removed ?

Watch Video Solution

61. What is the structural and functional unit of life ?

Watch Video Solution

62. Name three functional regions of a cell.

Watch Video Solution

63. Name the orgnelles present in the cells.

Watch Video Solution

64. Name the organelle present in plant cell only.

Watch Video Solution

65. What is the main component of nucleus ?

Watch Video Solution

66. Give six examples of single celled organisms.

Watch Video Solution

67. Who coined the term 'Protoplasm' for the fluid substance of cell ?

Watch Video Solution

68. How it was made possible to observe the complex structures of cell ?

Watch Video Solution

69. Name the organelles which is associated with protein synthesis.

Watch Video Solution

70. Which is the longest cell in plants.

Watch Video Solution

71. Name the smallest and the largest cell.

Watch Video Solution

72. Expand DNA.

Watch Video Solution

73. Expand RNA.

74. Who examined thin slice of cork under microscope ?

75. What is cork ?

76. Who coined the term "cell" ?

77. Who examined the living cells for first time ?

78. What are unicelluar organisms ?

Watch Video Solution

79. What are multicellular organisms ?

Watch Video Solution

80. Write examples of multicellular organisms.

Watch Video Solution

81. Write two features of cells of onion peel.

Watch Video Solution

82. What is the contribution of Robert Brown in cell biology ?

Watch Video Solution

83. What are the two types of cells on the basis of nature of nucleus ?

Watch Video Solution

84. Name any two prokaryotic cells.

Watch Video Solution

85. Who proposed the cell theory?

Watch Video Solution

86. What is cell theory ?

Watch Video Solution

87. Give the contribution of Rudolf Virchow in the field of biology.

Watch Video Solution

88. What is the number of cells present in an adult person ?

Watch Video Solution

89. Which is the smallest measuring unit in'the field of cell biology ?

Watch Video Solution

90. In which year electron microscope was invented ?

Watch Video Solution

91. What is the nature of plasma membrane ?

Watch Video Solution

92. Give the primary function of plasma membrane.

Watch Video Solution

93. Give one term for a semifluid ground substance present between plasma membrane and nucleus.

Watch Video Solution

94. What is diffusion ?

Watch Video Solution

95. What is the term for movement of water into and out of cell across a semipermeable membrane ?

Watch Video Solution

96. Define plasmolysis ?

Watch Video Solution

97. Give the common name of the mitochondria.

Watch Video Solution

98. Expand ATP.

Watch Video Solution

99. Name two semi-autonomous cell organelles.

Watch Video Solution

100. Which type of enzymes are located inside the mitochondria ?

Watch Video Solution

101. Name the largest sized cell organelle.

Watch Video Solution

102. Name three types of plastids.

Watch Video Solution

103. Which cell organelle is called kitchen of cell and why ?

Watch Video Solution

104. What are chromoplasts ?

Watch Video Solution

105. Write the chemical composition of cell wall.

Watch Video Solution

106. What is the role of cell wall ?

Watch Video Solution

107. Which chemical is used to strain plant cell ?

Watch Video Solution

108. Give one major difference between SER and RER.

Watch Video Solution

109. List two general functions of ER.

Watch Video Solution

110. Write one function of SER.

Watch Video Solution

111. List two major functions of Golgi body.

Watch Video Solution

112. Which plastids are involved in storage of food ?

Watch Video Solution

113. What is the main difference between cell organelles and cell inclusions ?

Watch Video Solution

114. Name the vacuolar membrane.

Watch Video Solution

115. Why is nucleus called director of the cell ?

Watch Video Solution

116. Which organelle plays central role in cellular reproduction ?

Watch Video Solution

117. What is nature of nuclear membrane ?

Watch Video Solution

118. What is primary function of nuclear membrane ?

Watch Video Solution

119. What are the functional units of chromosomes ?

Watch Video Solution

120. What is the chemical nature of a chromosome ?

Watch Video Solution

121. Give the primary function of DNA of chromatin fibre.

Watch Video Solution

122. What is the function of vacuole in plant cell ?

Watch Video Solution

123. Write functions of contractile vacuole in plant cell.

Watch Video Solution

124. Name the organelle which contains chlorophyll.

Watch Video Solution

125. What are two functions of plasma membrane ?

Watch Video Solution

126. What is osmosis?

Watch Video Solution