

BIOLOGY

BOOKS - MBD -HARYANA BOARD

THE FUNDAMENTAL UNIT OF LIFE

Example

1. Who discovered cells, and how?



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



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3. How do substances like CO2 and water move in and out of the cell? Discuss

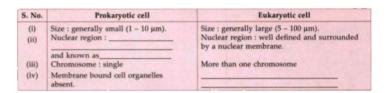


4. Why is the plasma membrane called a selectively permeable membrane



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





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



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



8. Why are lysosomes called 'suicidal bags'?



9. Where are proteins synthesised inside the cell?



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

cells.



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



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



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



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



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



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16. How does an Amoeba obtain its food?



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17. What is osmosis?



18. Describe the structure of the plant cell.



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



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



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21. Write short notes on :Chloroplast



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22. Write short notes on : Endoplasmic reticulum



23. Write short notes on : Golgi bodies



24. Discuss the structure and functions of mitochondria.



25. Write a note on prokaryotic cell.



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26. Write a short note on eukaryotic cell.



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27. Draw the ultrastructure of a typical animal cell.



28. What is cell and cell theory?

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29. What is prokaryotic cell?



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30. What is a eukaryotic cell?



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



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32. What do you mean by: Organelle



33. What do you mean by: Inclusions



34. Distinguish between cell wall and cell membrane.



35. Name the two nucleic acids present in cell.



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



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37. Explain lysosomes.



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38. List the functions of a vacuole.



39. What is centrosome ? List two functions of centrosome



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



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



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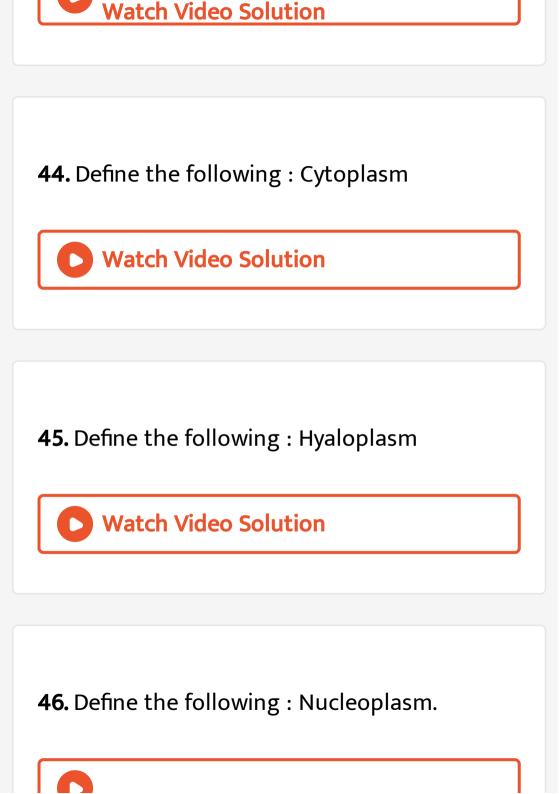
42. Write functions of cell wall.



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43. Give the functions of plasma membrane.







47. State the differences between cilia and flagella.



48. State the differences between grana and stroma.



49. Write functions of cell wall.



50. How will you examine cells of onion peel.



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



52. Differentiate between diffusion and osmosis.



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



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54. Differentiate Ribosome and Lysosome.



55. What are plastids? Name its three types.



56. Write functions of plastids.



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57. What are the functions of lysosomes?



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



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59. Differentiate cytoplasm and nucleoplasm.



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



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



62. Name three functional regions of a cell.



63. Name the orgnelles present in the cells.



64. Name the organelle present in plant cell only.



65. What is the main component of nucleus?



66. Give six examples of single celled organisms.



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

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



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



70. Which is the longest cell in plants.



71. Name the smallest and the largest cell.



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72. Expand DNA.



73. Expand RNA.



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74. Who examined thin slice of cork under microscope?



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75. What is cork?



76. Who coined the term "cell" ?



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77. Who examined the living cells for first time

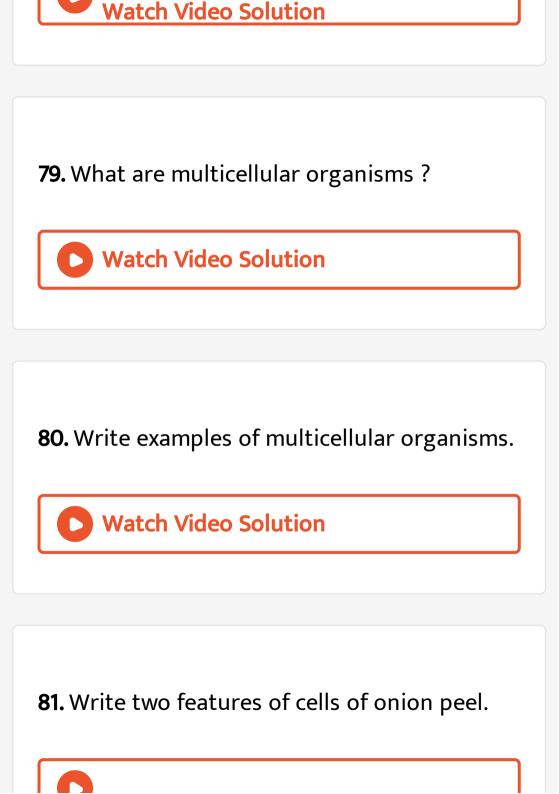
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78. What are unicelluar organisms?





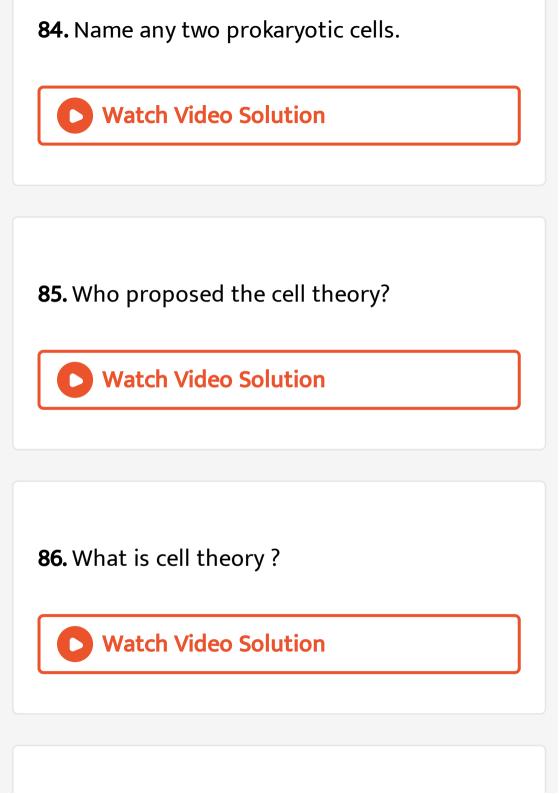


82. What is the contribution of Robert Brown in cell biology?



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





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



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



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



90. In which year electron microscope was invented?



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91. What is the nature of plasma membrane?



92. Give the primary function of plasma membrane.



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



94. What is diffusion?



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



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96. Define plasmolysis?



97. Give the common name of the mitochondria.



98. Expand ATP.



99. Name two semi-autonomous cell organelles.



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



101. Name the largest sized cell organelle.



102. Name three types of plastids.



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



104. What are chromoplasts?



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105. Write the chemical composition of cell wall.



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106. What is the role of cell wall?



107. Which chemical is used to strain plant cell



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108. Give one major difference between SER and RER.



109. List two general functions of ER.



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110. Write one function of SER.



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111. List two major functions of Golgi body.



112. Which plastids are involved in storage of food?



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



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114. Name the vacuolar membrane.



115. Why is nucleus called director of the cell?



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116. Which organelle plays central role in cellular reproduction?



117. What is nature of nuclear membrane?



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118. What is primary function of nuclear membrane?



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119. What are the functional units of chromosomes?



120. What is the chemical nature of a chromosome?



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



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



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123. Write functions of contractile vacuole in plant cell.



124. Name the organelle which contains chlorophyll.



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125. What are two functions of plasma membrane?



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126. What is osmosis?

