BIOLOGY

BOOKS - S CHAND BIOLOGY (HINGLISH)

THE FUNDAMENTAL UNIT OF LIFE: CELL

Exercise

1. Viruses are non-cellular living organisms.

Watch Video Solution

2. Amoeba is a multicellular organism.

True or False.

A. True

B. False

C.

D.

Answer: B

Watch Video Solution

3. Plant cells are bounded by a wall composed of cellulose.

A. T

B. F

C.

D.

Answer: A

Watch Video Solution

4. Cellulose is a protein.

Watch Video Solution

5. Plasma membrane is present in all cells.

True or False.

A. True

B. False

C.

D.

Answer: A

Watch Video Solution

6. Blue green algae hav prokaryotic cells.

Watch Video Solution

7. All kinds of plastids have pigments.

Watch Video Solution

8. Nucleouls has a limiting membrane.

True or False.

A. True

B. False

C.

D.

Answer: B

Watch Video Solution

9. Outer and inner membranes of chloroplasts have chlorophyll pigment.

True or False

A. True

B. False

C.

D.

Answer: B

Watch Video Solution

10. Ribosomes are made up of deoxyribonucleic acid and proteins.

True or False.

A. True

B. False

C.

D.

Answer: B

Watch Video Solution

11. The oxidation of food in a cell takes place in mitochondra.

Watch Video Solution

12. Plastids are called the kittchen of a plant cell.

Watch Video Solution

13. Cell wall of plant cell is a living structure.

True or False.

A. True

B. False

C.

D.

Answer: B

Watch Video Solution

14. Cork comes from bark.

Watch Video Solution

15. Robert Brown discovered protoplasm in 1831.(true/false)

Watch Video Solution

16. Cell forming body of Amoeba has an ever changing shape.

Watch Video Solution

17. Movement of a substance from the area of low concentration to an area of high concentration is called diffusion.

 Watch Video Solution

18. A dilute solution is called hypertonic solution.

True or False.

A. True

B. False

C.

D.

Answer: B

 Watch Video Solution

19. Lysosomes keeps the cells clean by digesting foreign materials and worn out cell

organelles.

True or False.

A. True

B. False

C.

D.

Answer: A

 Watch Video Solution

20. Smoth endoplasmic reticulum detoxifies many poisons and drugs.

Watch Video Solution

21. Central vaculoe occupies $10-20\,\%$ of plant cell volume.

Watch Video Solution

22. The ..... are an exception to cell theory.

Watch Video Solution

23. The nuclear region of prokaryotic cells is called.....

Watch Video Solution

24. The term protoplasm was coined by

Watch Video Solution

25. Ultrastructure of cell organelles can be studied by .....

Watch Video Solution

26. An ostrich egg is the ..... animal cell.

Watch Video Solution

27. Amoeba can change their ..... continuously.

 Watch Video Solution

28. Cell is the basic ..... and ..... Unit of all living organisms.

 Watch Video Solution

29. Cellular organelles called ....., are often referred to as suicidal bags.

 Watch Video Solution

30. Ribosomes are concerned with the synthesis of .....

Watch Video Solution

31. Function of mitochondria is ....., production.

Watch Video Solution

32. Chromosomers are made up of nucleic acid and .....

Watch Video Solution

33. Cell theory was first given by ....., and .....

Watch Video Solution

34. The additional protective layer in plants present outside the plasma membrane is called .....

Watch Video Solution

35. Call wall is found only in ....., cells.

Watch Video Solution

36. Mitochondrial cristae from a large surface area for ....., generation reactions.

Watch Video Solution

37. Plant cell wall is mainly composed of .....

Watch Video Solution

38. Cell organelles perform ....., function in all organisms.

Watch Video Solution

39. Cell theory was refined by .....

Watch Video Solution

40. Cell were discovered by Robert Hooke in .....

Watch Video Solution

41. Match the contents of the column I and II

Column I	*Column II*
1. Robert Hooke	(*a*) protoplasm
2. Robert Brown	(*b*) cell theory
3. Schleiden and Schwann	(*c*) the term 'cell'
4. Von Mohl	(*d*) diffusion
5. Cellulose	(*e*) nucleus
6. Glycogen	(*f*) inheritance
7. Mitochondria	(*g*) energy
8. Chromosomes	(*h*) glucose synthesis
9. Chloroplasts	(*i*) Golgi apparatus
10. Nucleus	(*j*) storage
11. Cell wall	(*k*) Cellulose
12. Central vacuole	(*l*) DNA plus histone
13. Chromatin	(*m*) double membrane
	(*n*) cell sap

Watch Video Solution

42. Match the contents of Column I, II and III.

Column I	*Column II*	*Column III*
(*a*) Multicellular organisms	(*i*) Lipids	I. Turgidity
(*b*) Mitochondrion	(*ii*) Plants	II. Inner folded membrane
(*c*) Plasma membrane	(*iii*) Cell sap	III. Proteins
(*d*) Central vacuole	(*iv*) Outer permeable membrane	IV. Animals
(*e*) Chloroplast	(*v*) Digestive enzymes	V. Phagosome
(*f*) Lysosomes	(*vi*) Carbon dioxide	VI. Thylakoid

Watch Video Solution

43. Which type of metabolism, anabolism (A) and catabolism (C) are performed by the following organelles.

Organelle	*Metabolism*
1. Mitochondria	.....
2. Lysosomes	.....
3. Chloroplasts	.....
4. Endoplasmic reticulum (ER)	.....
5. Golgi apparatus	.....

Watch Video Solution

44. Write down three basic characteristics of a cell.

Watch Video Solution

45. What do you mean by unicellular and multicellular ?

Watch Video Solution

46. What is division of labour ? Explain it in context of multicellular organisms.

Watch Video Solution

47. Why does viruses form a exception to cell theory?

Watch Video Solution

48. Name the largest plant cell.

Watch Video Solution

49. Define the following terms: cell prokaryotic cell, eukaryotic cell, organelle.

Watch Video Solution

50. Briefly describe the structure and functions of cell wall.

Watch Video Solution

51. Describe the structure and functions of nucleus.

Watch Video Solution

52. What are diploid and hapoid number?

Watch Video Solution

53. Describe structure of a chromosome.

Watch Video Solution

54. Describe structure and functions of plasma membrane.

Watch Video Solution

55. What do you mean by passive and active transport? Write a note on diffusion.

Watch Video Solution

56. Describe the mechanism of osmosis. Give its importance.

Watch Video Solution

57. Write a note on plasmolysis,

Watch Video Solution

58. What is endoplasmic reticulum ? Give its types and functions.

Watch Video Solution

59. Describe structure and functions of Golgi apparatus.

Watch Video Solution

60. What are lysosomes ? How are they formed? Give their functions.

Watch Video Solution

61. Discuss the structure and functions of mitochondria.

Watch Video Solution

62. What the help of a labelled diagram describe the structure of a chloroplast.

Watch Video Solution

63. The term cell was coined by and the cell was first seen by

A. Leeuwenhoek

B. Robert Hooke

C. Fleming

D. Robert Brown

Answer: B

Watch Video Solution

64. Who proposed the "Cell theory"

A. Schleiden and Schwann

B. Watson and Crick

C. Darwin and Wallace

D. Mendel and Morgan

Answer: A

Watch Video Solution

65. The longest cell in the numan body is

A. never cell

B. muscle cell

C. liver cell

D. kidney cell

Answer: A

Watch Video Solution

66. The number of lenses in compound light microscope is

A. 2

B. 3

C. 4

D. 1

Answer: A

 Watch Video Solution

67. The history of the cell began in 1665 with the publication of Micrographia in London by

A. Robert Hooke

B. Robert Brown

C. Starburger

D. Dujardin

Answer: A

Watch Video Solution

68. The idea 'omins cellula e cellula' which means that all living cells arise form preexisting cells was given by

A. Robert Brown

B. Purkinje

C. Rodolf Virchow

D. Schleiden

Answer: C

Watch Video Solution

69. Which of the follwong has an irregular or variable shape ?

A. Euglena

B. Paramecium

C. Amoeba

D. Acetabularia

Answer: C

Watch Video Solution

70. Genetic material of a eukaryotic cell is contained in

A. nucleous

B. nucleus

C. nucleoplasm

D. nucleoid

Answer: B

Watch Video Solution

71. Nucleolus is a seat of

A. protein synthesis

B. ribosome synthesis

C. enzyme synthesis

D. mRNA synthesis

Answer: B

Watch Video Solution

72. Middle lamella is formed of

A. calcium pectate

B. cellulose

C. hemicellulose

D. lignin

Answer: A

Watch Video Solution

73. Plasma membrane is

A. permeable

B. selective permeable

C. semipermeable

D. impermeable

Answer: B

 Watch Video Solution

74. A cell placed in solution swells up. The solution is

A. hypertonic

B. isotonic

C. hypotonic

D. both a and b

Answer: C

Watch Video Solution

75. A cell placed in hypotonic solution bursts up. It is

A. animal cell

B. bacterial cell

C. fungal cell

D. plant cell

Answer: A

Watch Video Solution

76. Bulk transport occurs through

A. endocytosis

B. exoctosis

C. endosmosis

D. Both A and B

Answer: D

 Watch Video Solution

77. Cytoplasm is

A. unit mass of protoplasm

B. protoplasm excluding plasma membrane

C. protoplasm excluding plasma membrane and and nucleus

D. protoplasm excluding plasma membrane and cell organelles

Answer: C

Watch Video Solution

78. RER is rough as it contains the

A. detoxification centres

B. carbohydrate synthesizing machinery

C. ribosomes

D. lysosomes

Answer: C

Watch Video Solution

79. Protein storing plastid is

A. aleuroplast

B. amyloplast

C. elaioplast

D. both b and c

Answer: A

Watch Video Solution

80. Seat of photosynthesis is

A. leucoplast

B. chloroplast

C. chromoplast

D. both a and c

Answer: B

Watch Video Solution

81. Mitochondria are seats of

A. aerobic respiration

B. Krebs cycle of aerobic respiration

C. glycolysis of aerobic respiration

D. anaerobic respiration

Answer: A

Watch Video Solution

82. Golgi apparatus is involved I synthesis of

A. new membranes

B. new membranes and lysosomes

C. cellulose

D. glucose

Answer: C

Watch Video Solution

83. Lysosomes are also called

A. suicide bags

B. digestive bags

C. demolition squads

D. all the above

Answer: D

 Watch Video Solution

84. Contractile vacuoles take part in

A. absorption of water from outside

B. osmoregulation

C. excretion

D. both b and c

Answer: B

Watch Video Solution

85. Centrosome occurs in

A. plant cells

B. animal cells

C. animal cells and some lower plant cells

D. all the above

Answer: C

 Watch Video Solution

86. Who discovared the cell ?

Watch Video Solution

87. Name the publicationin which Robert Hooke (1665) described his discovery of the cell.

Watch Video Solution

88. Who coined the term protoplasm for living matter?

Watch Video Solution

89. Who did propose cell theory ?

Watch Video Solution

90. Name the largest plant cell.

Watch Video Solution

91. name the longest animal cell.

Watch Video Solution

92. Give an example of prokaryotic cell.

Watch Video Solution

93. What is example of a eukaryotic cell ?

Watch Video Solution

94. Name the phenomenon by which raisins placed in water swell up.

Watch Video Solution

95. Whether ATP molecules are consumed in the process of osmosis ?

Watch Video Solution

96. What is the function of lignin deposition in cell wall ?

Watch Video Solution

97. What is the characteristic of nuclear envelope

Watch Video Solution

98. What structures are involved in the formation of chromatin ?

Watch Video Solution

99. Where is nucleus located in a cell ?

Watch Video Solution

100. What is the term used for subcellular structures having characteristic forms and

functions

Watch Video Solution

101. What is cytosol ?

Watch Video Solution

102. How is food vacuole formed ?

Watch Video Solution

103. What is the name of membrane surrounding sap vacuole?

Watch Video Solution

104. What is the name of fluid contained in a vacuole of a plant cell ?

Watch Video Solution

105. What is dictyosome ?

Watch Video Solution

106. Where are vesicles are formed in Golgi apparatus

Watch Video Solution

107. Where does ATP synthesis occur in mitochondria ?

Watch Video Solution

108. When did Robert Hooke discover cell ?

Watch Video Solution

109. Who among Scheiden and Schwann was zoologist and botanist ?

Watch Video Solution

110. Who invented the "electron microscope"

Watch Video Solution

111. What is shape of a RBC ?

Watch Video Solution

112. What is the peculiarity of nerve cell ?

Watch Video Solution

113. What will happen if an animal cell is placed in hypertonic solution ?

Watch Video Solution

114. What will happen if an animal cell is placed in hypertonic solution ?

Watch Video Solution

115. Cytoplasmic bridges between adjacent plant cells are called ?

Watch Video Solution

116. How many chromosomes are present in human cells ?

Watch Video Solution

117. What is a tonoplast

Watch Video Solution

118. Inner mitochondrial membrane has a number of infoldings called .....

Watch Video Solution

119. Which one are the protein factories of the cells?

Watch Video Solution

120. Where are photosynthetic pigments present in chloroplast ?

Watch Video Solution

121. Where do contractile vacoules occur ?

Watch Video Solution

122. Differentiate between the following

(i) Endocytosis and exocytosis

(ii) Cis and trans faces of Golgi apparatus

(c) Chromosome and chromatid

(iv) Write function of nucleolus

Watch Video Solution

123. Describe secretion in cell.

Watch Video Solution

124. Plasma membrance

Watch Video Solution

125. Golgi apparatus

Watch Video Solution

126. What are semiautonomous cell organelles?

Watch Video Solution

127. Grana-The kitchen of the cell

Watch Video Solution

128. Mitochondria-Oxygen consumer

Watch Video Solution

129. Why are lysosomes also known as scavengers of the cells?

Watch Video Solution

130. Study the basic difference between animal and plant cells.

Watch Video Solution

131. Collect the information about chromosome number of organisms known to you.

Watch Video Solution

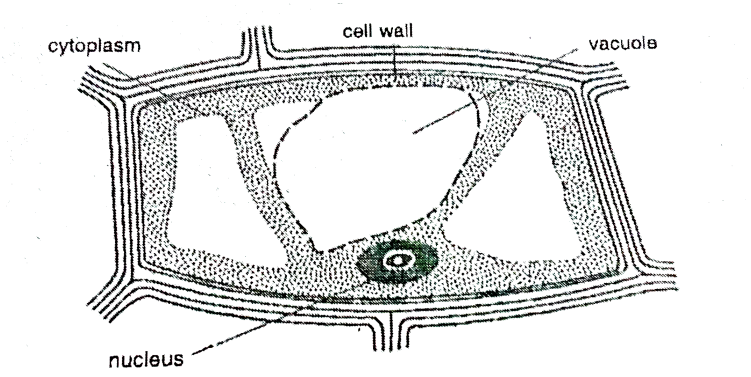
132. Perfoem an activity to study the principle of diffusion

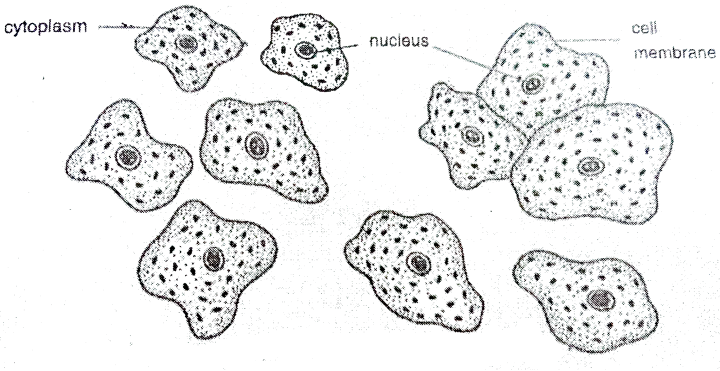
Watch Video Solution

133. Study the plasmolysis in Rheo leaf peels

Watch Video Solution

134. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Human cheek cells are commonly stained with

A. safranin

B. methylene blue

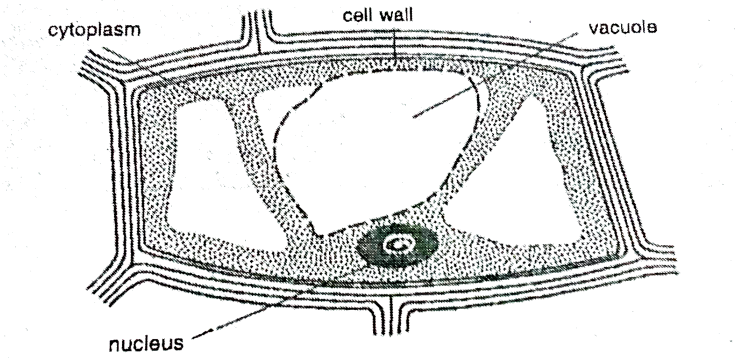
C. acetocarmine

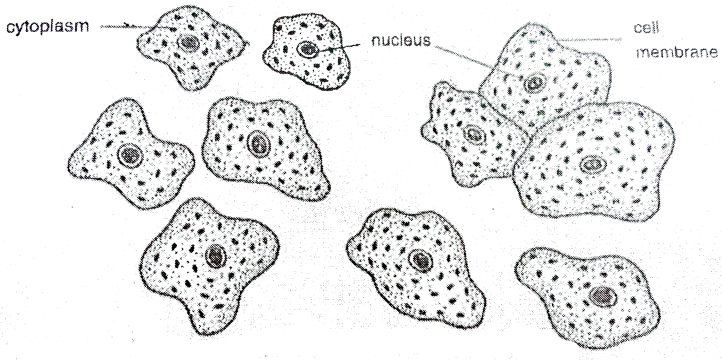
D. eosine

Answer: B

Watch Video Solution

135. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Name of stain which is commonly used to study plant cells

A. safranin

B. cotton blue

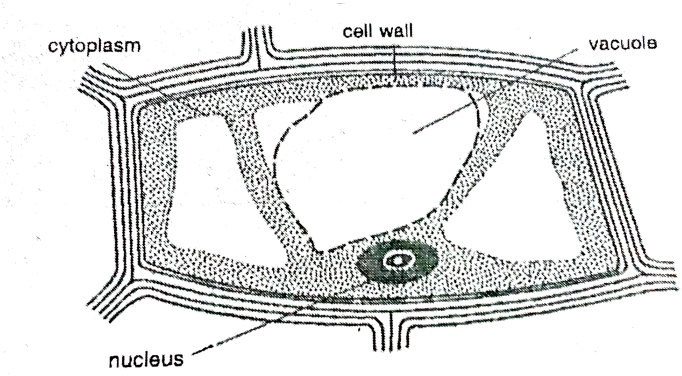
C. methylene

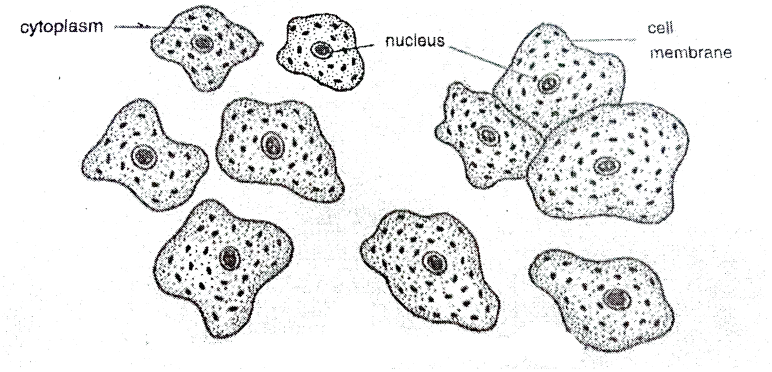
D. acetocarmine

Answer: A

 Watch Video Solution

136. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Temporary mount of a tissur is made in

A. wax

B. alcohol

C. glycerine

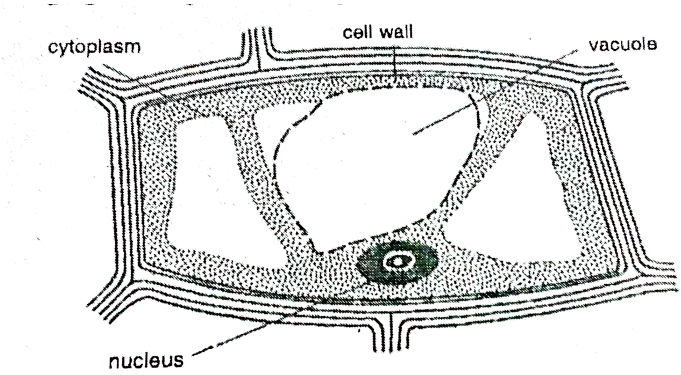
D. xylene

Answer: C

Watch Video Solution

137. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled

diagram.



Safranin is a reagent that is used to stain

A. nucleus

B. cytoplasm

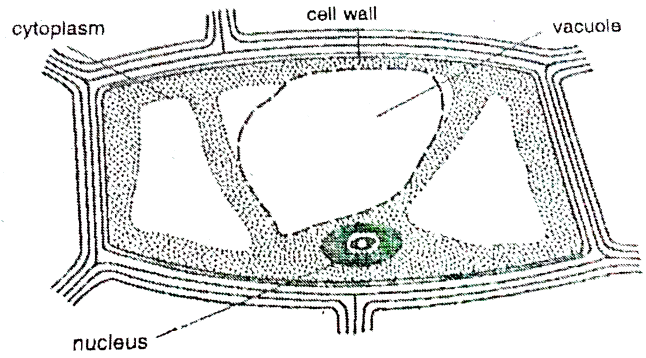
C. cell wall

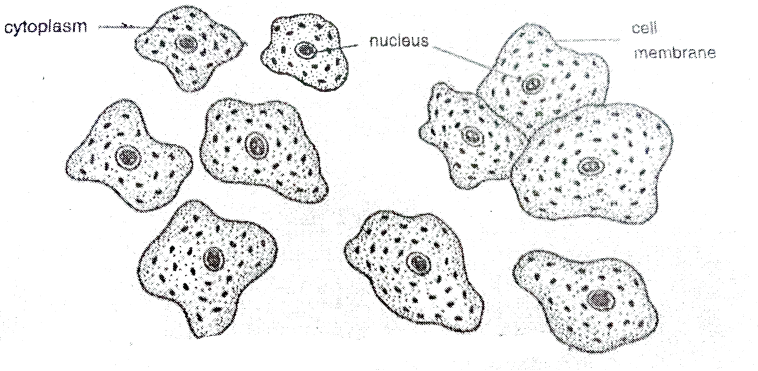
D. plasmodesmata

Answer: C

Watch Video Solution

138. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





We generally mount the material in the slide

A. in the centre

B. on the left side of slide

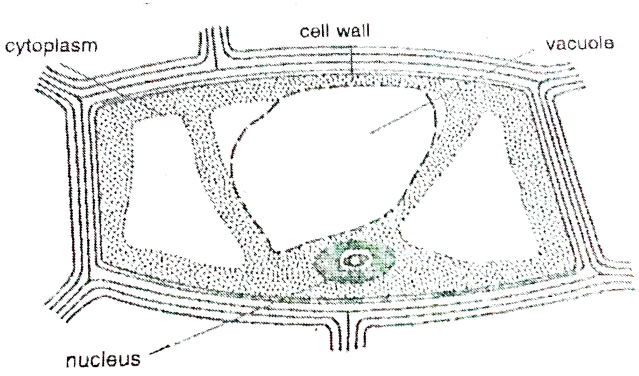
C. on the right side of slide

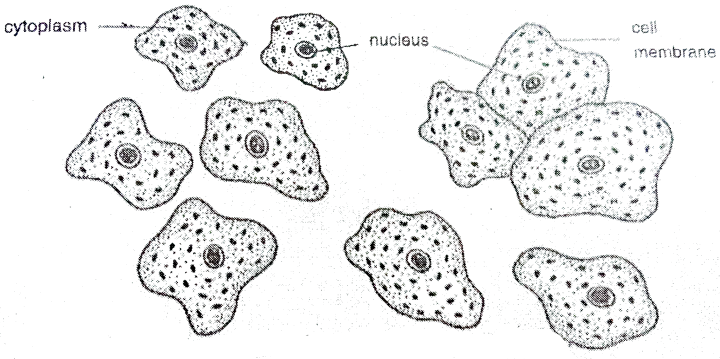
D. both (b) and (c)

Answer: A

Watch Video Solution

139. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Coverslip is put on the mounted material on a slide very gently to

A. avoid the crushing of mounted material

B. avoid the entry of air bubble

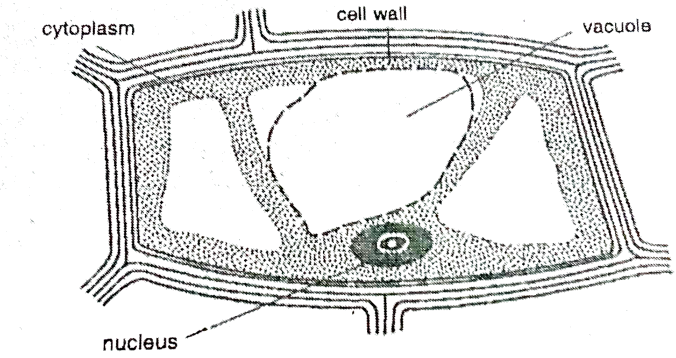
C. avoid cozing of stain

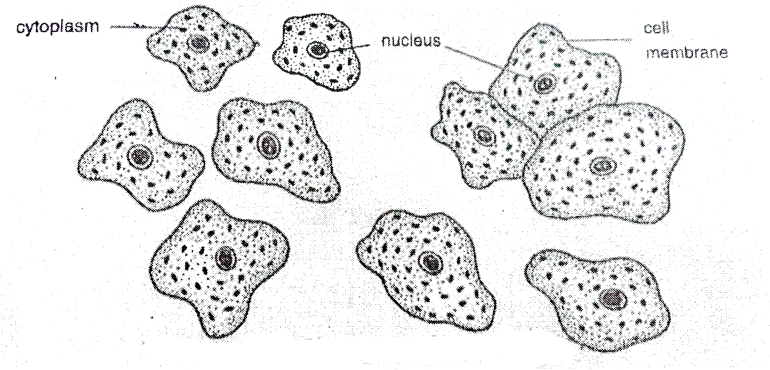
D. avoid oozing of glycerine

Answer: B

 Watch Video Solution

140. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Definite shape of cell is seen in case of

A. plant cell

B. animal cell

C. both animal and plant cell

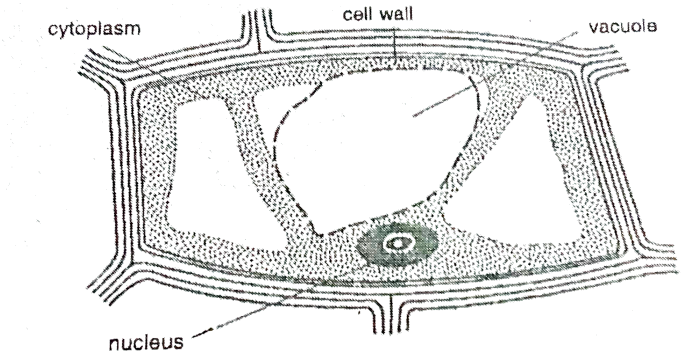
D. neither animal nor plant cell

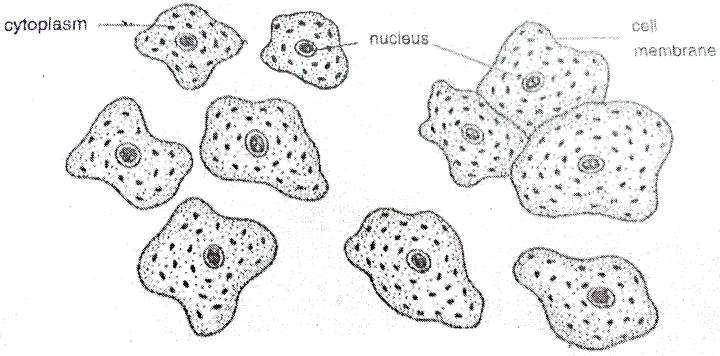
Answer: B

 Watch Video Solution

141. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled

diagram.





The outer most layer of human cheek cells is

A. cytoplasm

B. plasma membrane

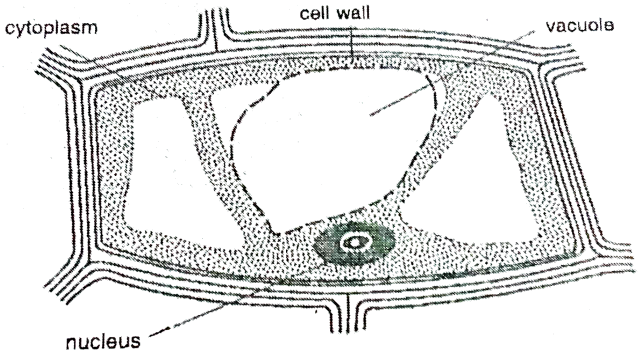
C. cell wall

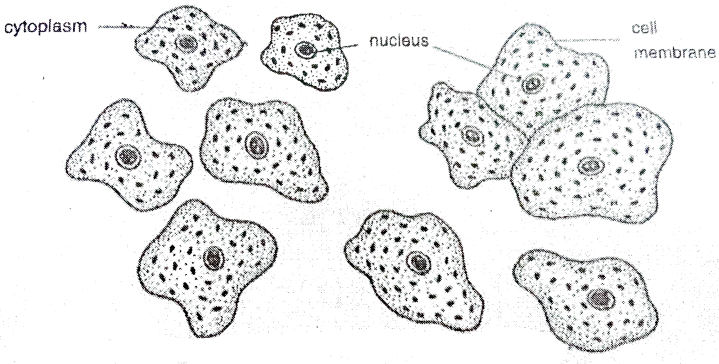
D. nuclear membrane

Answer: B

 Watch Video Solution

142. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





The outer most covering of a plant cell is

A. plasma membrane

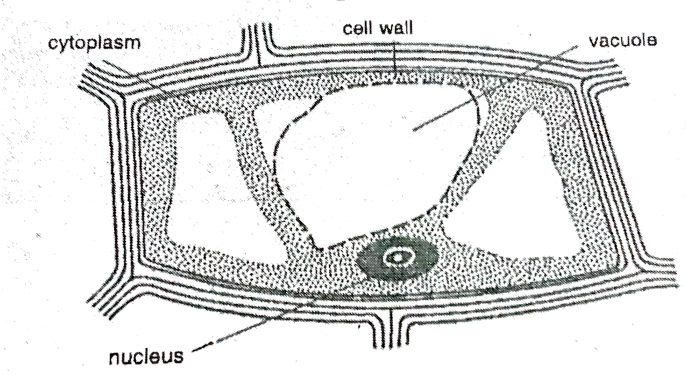
B. cell wall

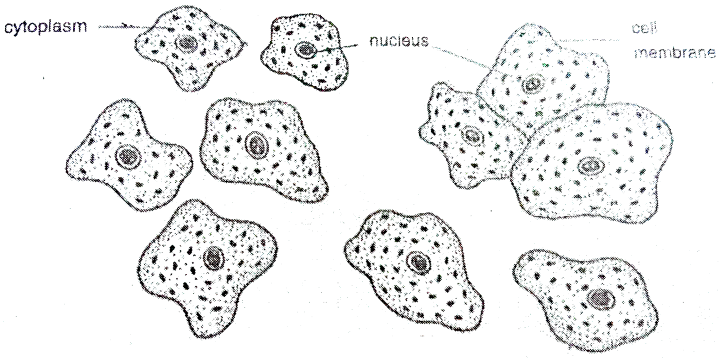
C. vacuole membrane

D. nuclear membrane

Answer: B

143. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Cell wall in plant cells is made of

A. starch

B. glycogen

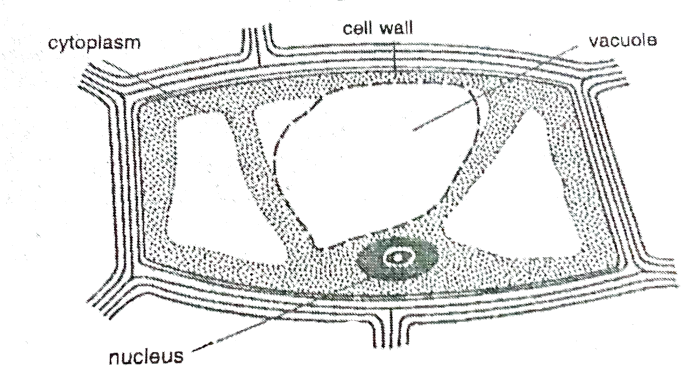
C. celluose

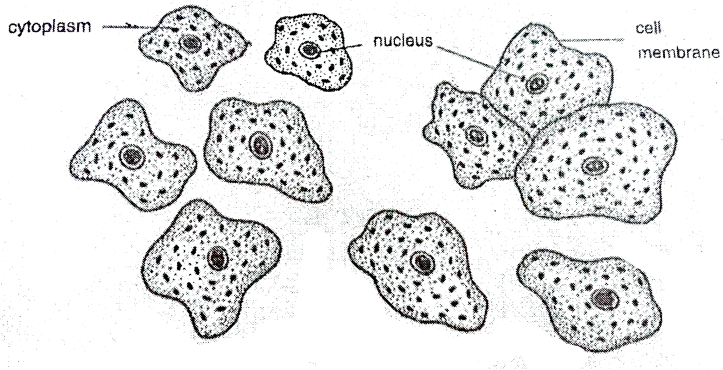
D. chitin

Answer: C

 Watch Video Solution

144. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





The structural or functional unit of life is

A. tissue

B. organ

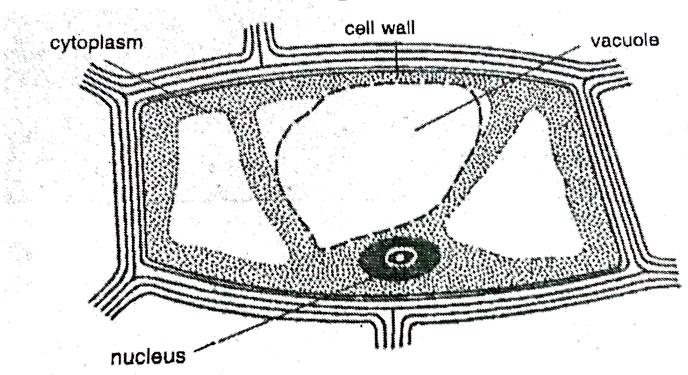
C. organ system

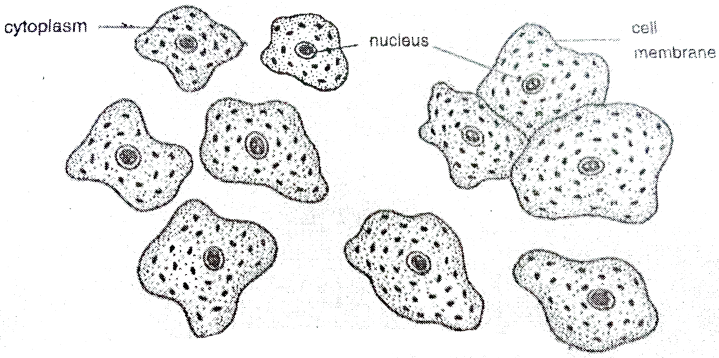
D. cell

Answer: D

 Watch Video Solution

145. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Nucleus was discovered by

A. Robert Hooke

B. Robert Brown

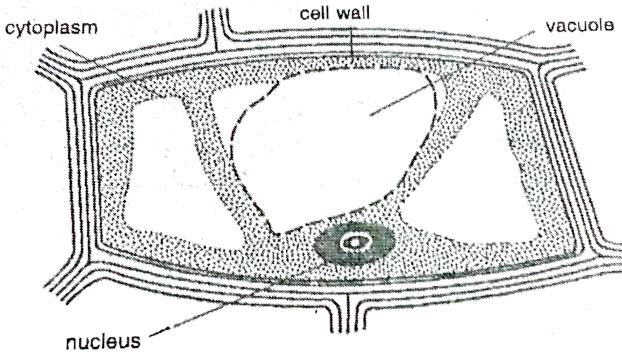
C. Virchow

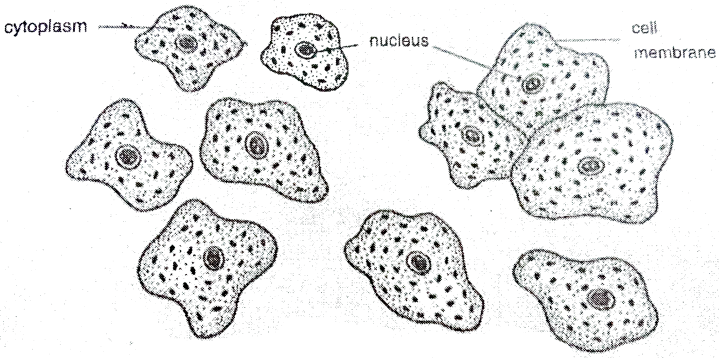
D. Schleiden

Answer: B

 Watch Video Solution

146. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





In plant cells, nucleus is generally placed

A. in the centre

B. on one side of the cell

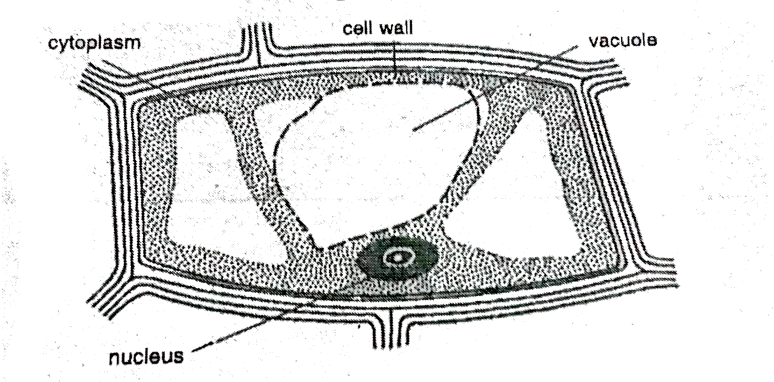
C. attached to plasma membrane

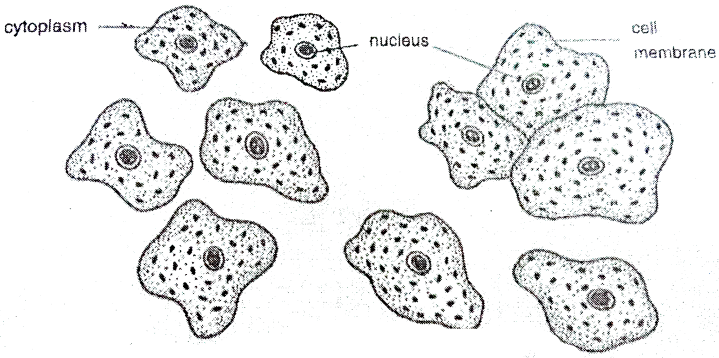
D. on one corner of the cell

Answer: B

 Watch Video Solution

147. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





In juman cheek cells, nucleus is generally located

A. near the plasma membrane

B. on one side

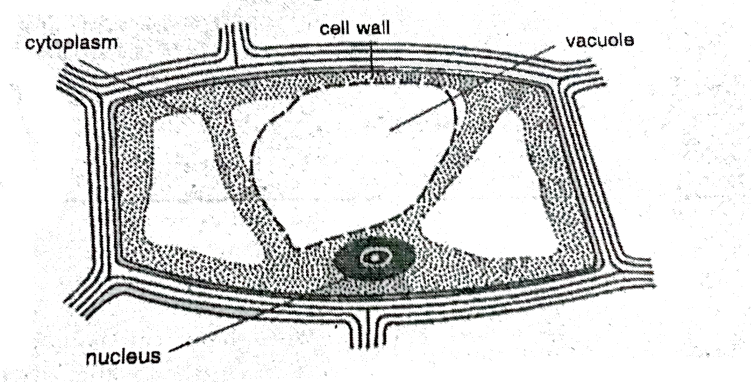
C. in the centre

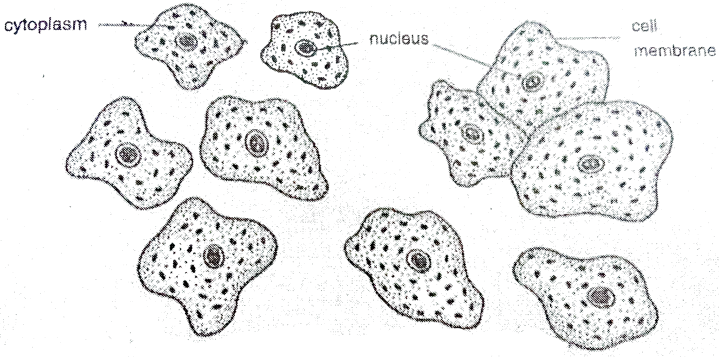
D. on border

Answer: C

Watch Video Solution

148. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





In plant cells, cell wall is

A. dynamic and live

B. rigid and nonliving

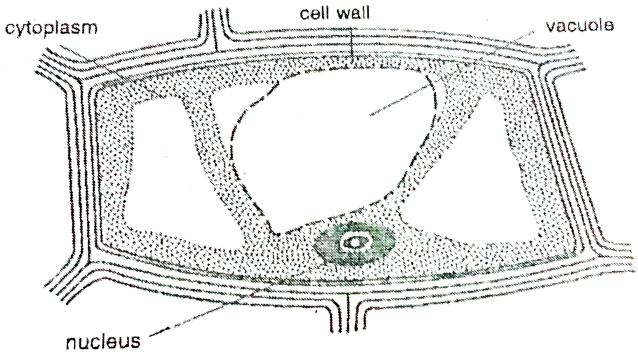
C. dynamic and non-living

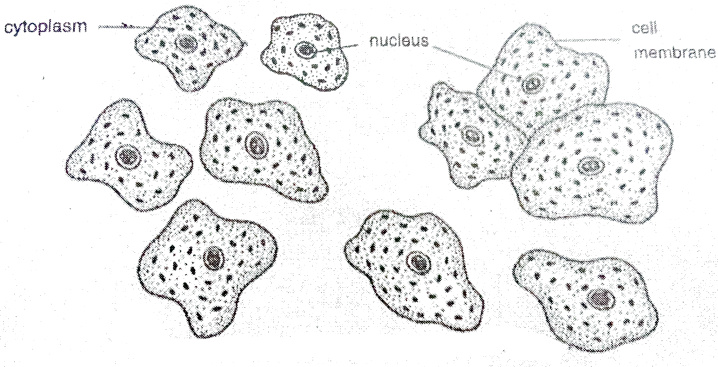
D. rigid and living

Answer: B

Watch Video Solution

149. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





In plant cells, cell to cell contact is maintained through

A. tight junctions

B. desmosomes

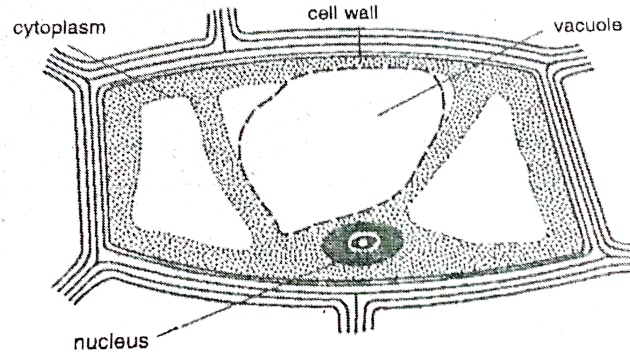
C. interdigitation

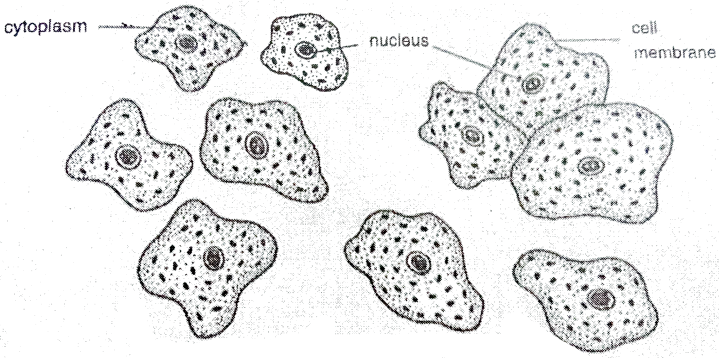
D. plasmodesmata

Answer: D

 Watch Video Solution

150. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





In plant cells, nucleus is generally

A. cylindrical

B. rounded

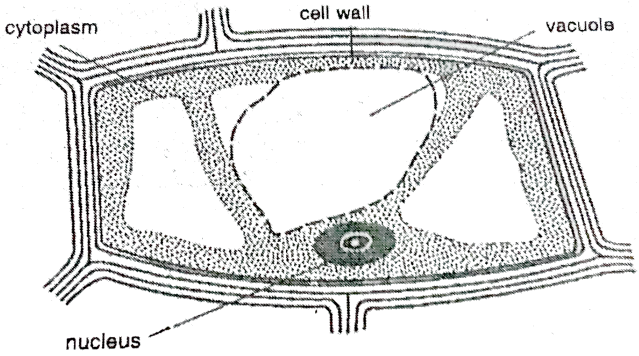
C. discoidal

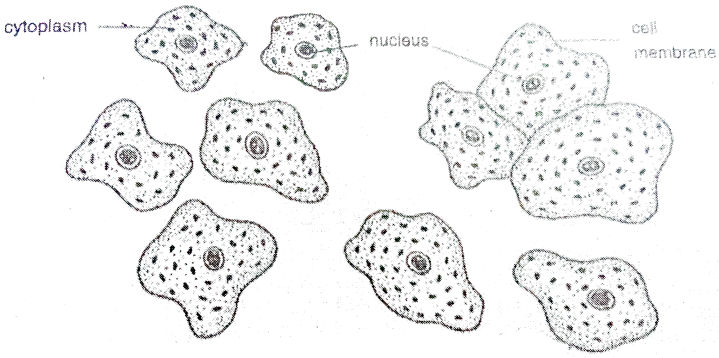
D. elliptical

Answer: B

 Watch Video Solution

151. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





Plant cells generally have

A. big but less number of vacuoles

B. small but large number of vacuoles

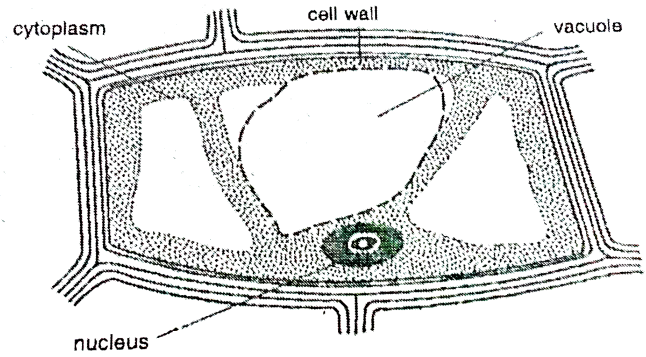
C. no vacuole at all

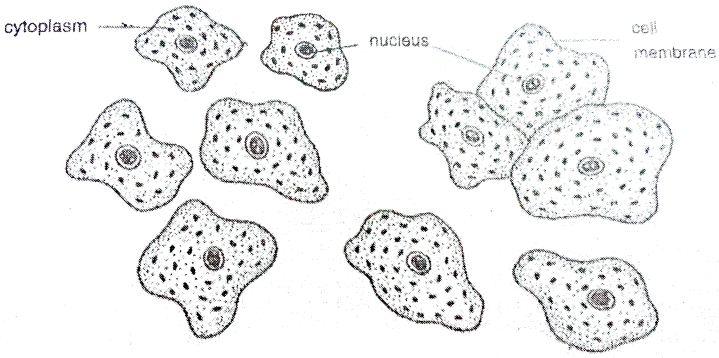
D. all equal sized vacuoles

Answer: A

 Watch Video Solution

152. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





The cels are first focussed in microscope under

A. 40 X

B. 10X

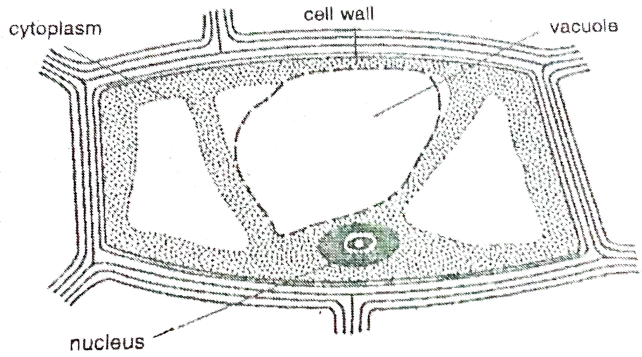
C. 100X

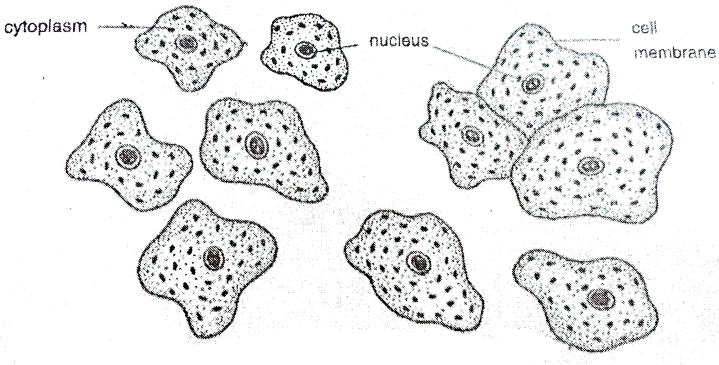
D. any of these

Answer: B

Watch Video Solution

153. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





The organelle not present in human cheek cells is

A. nucieus

B. plasma membrane

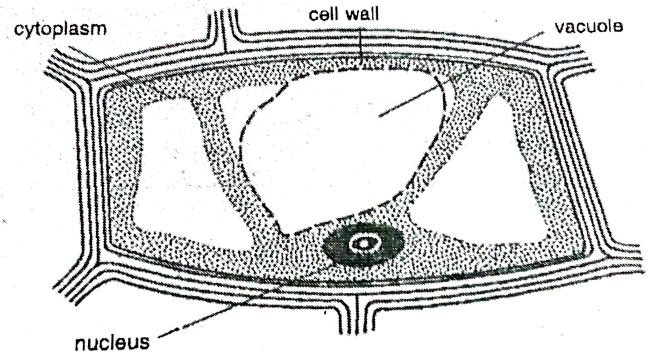
C. mitochondria

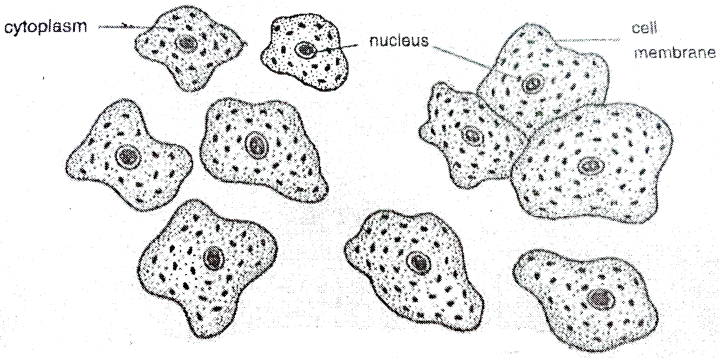
D. chloroplast

Answer: D

 Watch Video Solution

154. To prepare stained temporary mounts of (a) onion peel, and (b) human cheek cells and to record observations and draw their labelled diagram.





The cell wall of plants is made up of cellulose which is a

A. lipid

B. protein

C. polysaccharide

D. amino acid

Answer: C

Watch Video Solution

155. What is microscope ?

Watch Video Solution

156. What is microscopic?

Watch Video Solution

157. Name the insturment used for obtaining magnified images of small objects.

Watch Video Solution

158. Name the parts of a compound microscope in which two different types of lenses are used.

Watch Video Solution

159. How can you colculate the magnifiction of a microscope ?

Watch Video Solution

160. Why is light microscope called a compoind microscope'?

Watch Video Solution

161. Give one main difference between a light microscop and an electron microscope

Watch Video Solution

162. What is the used of glycerine in mounting of stained materials on slides ?

Watch Video Solution

163. Why should you hold coverslip only from its edges ?

Watch Video Solution

164. What is outer most later found in animal cells ?

Watch Video Solution

165. What is outer most layer found in the plant cell ?

Watch Video Solution

166. Name two structures forund in plant cells and not in animal cells.

Watch Video Solution

167. Give one single character, on the basis of which you can say that the given diagram is of a plant cell.

Watch Video Solution

168. Name two structures found only in animal cells and not in plant cells.

Watch Video Solution

169. A drop of link is placed gently at the base of a beraker containing water by means of a dropper. What will heppen ?

Watch Video Solution

170. Piasma mebrne is permeable to water. How does a cell show endosmosis or exosmosis ?

Watch Video Solution

171. Hypertonic solution causes plasmolysis where the protoplast shrinks and withdraws from the cell wall at most places. What is present between the shrunken protoplats and cell wall?

Watch Video Solution

172. What is crenation ?

Watch Video Solution

173. What would happen if shelled raw egg and deshelled boiled agg are placed in water

Watch Video Solution

174. Why do dry apricot placed in salt solution do not swell while they do so when kept in water?

Watch Video Solution

175. What type of organization is found in the plasma membrane ?

Watch Video Solution

176. Double membrane is absent in

(a) nucleus (b) mitochondria (c) chloroplast (d) lysosomes

Watch Video Solution

177. Plasmolysis in a plant cell is defined as

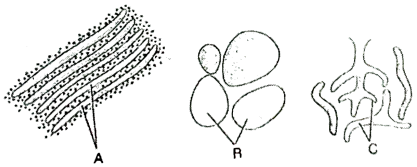
Watch Video Solution

178. Lysosomes form a kind of demolition squads of the animal call.

Watch Video Solution

179. Match the stimuli with response

Organelle	*Storage of protein A*	*Oxysome B*	*Cell division C*
1. Mitochondria 2. Centrioles 3. Aleuroplasts			



Watch Video Solution

180. Differentiate between plasma membrane and cell wall.

Watch Video Solution

181. Describe the structure and functions of nucleus.

Watch Video Solution

182. Describe the structure and functions of mitochondria. Write two differences in function mitochondria and chloroplarts

Watch Video Solution

183. Main difference between animal cell and plant cell is

A. nutrition

B. growth

C. movement

D. respiration

Answer: A

 Watch Video Solution

184. Animal cell lacking nuclei would also lack in

A. chromosome

B. ribosome

C. lysosome

D. endoplasmic reticulum

Answer: A

Watch Video Solution

185. Plasmolysis occurs due to

A. absorption

B. endosmosis

C. osmosis

D. exosmosis

Answer: A

 Watch Video Solution

186. Solute concentration is higher in the external solution

A. hypotonic

B. isotonic

C. hypertonic

D. none of the above

Answer: c

Watch Video Solution

187. A cell placed in hypotonic solution will

A. shrink

B. show plasmolysis

C. swell up

D. no change in shape or size

Answer: A

 Watch Video Solution

188. Which of the following is known as "physical basis of life" ?

A. gene

B. protoplasm

C. nucleolus

D. mitochondria

Answer: A

 Watch Video Solution

189. Which of the following is incorrect pair ?

A. chloroplast-kitchen of the cell

B. mitochondria-power house of the cell

C. lysosome -secretory granules

D. nucleus-brain of the cell

Answer: A

Watch Video Solution

190. Photosynitetic pigments are located in

A. storma

B. outer membrane of chloroplast

C. grana

D. inner membrane of chloroplast

Answer: A

Watch Video Solution

191. Which of the following act as garbage disposal system of the cell ?

A. Golgi apparatus

B. lysosome

C. vacuole

D. peroxisome

Answer: A

Watch Video Solution

192. Ribosomes are made up of

A. lipoprotein

B. RNA

C. protein

D. both (b) and (c)

Answer: A

Watch Video Solution

193. Colourless plastids are known as

A. leucoplasts

B. chromoplasts

C. chloroplasts

D. none of the above

Answer: A

Watch Video Solution

194. Chlorophyll is present in

A. matrix

B. stroma

C. cristae

D. thylakoid

Answer: A

Watch Video Solution

195. Cell wall of plant cells is chiefly composed of

A. hemicellulose

B. cellulose

C. phospholipids

D. proteins

Answer: b

 Watch Video Solution

196. Intercellular connections in plant cells are called

A. middle lamella

B. microfibrils

C. matrix

D. plasmodesmata

Answer: A

Watch Video Solution

197. The infoldings in mitochondria are known as

A. cristae

B. matrix

C. cisternae

D. grana

Answer: A

Watch Video Solution

198. Aleuroplasts in cell store

A. starch

B. oil

C. protein

D. nutrients

Answer: A

Watch Video Solution

199. Well defined nucleus is absent in

A. Plant cell

B. animal cell

C. eukaryotic cell

D. prokaryotic cell

Answer: A

Watch Video Solution

200. Mitochondria are the seat of

A. anaerobic respiration

B. trapping of sunlight

C. Krebs cycle

D.

Answer: c

Watch Video Solution

201. First living cells were observed by

A. A.V. Leeuwenhoek

B. Robert Hooke

C. R. Virchow

D. Robert Brown

Answer: A

 Watch Video Solution

202. Membrane which allows passage of only solvent through it is

A. differentially permeable

B. semipermeable

C. impermeable

D. both (a) and (b)

Answer: A

 Watch Video Solution

203. Unicellular organismas take in oxygen and pass out carbon dioxide through

A. diffusion

B. exosmosis

C. endosmosis

D. active transport

Answer: A

Watch Video Solution

204. Root hairs of plants absorb wate from soil through

A. diffusion

B. imbibition

C. osmosis

D. all the above

Answer: A

 Watch Video Solution

205. The underdined unclear region of prokaryotes is also known as

A. nucleus

B. nucleolus

C. nucleic acid

D. nucleoid

Answer: D

Watch Video Solution

206. The only cell organelle seen in prokaryotic cell

A. mitochondria

B. ribosomes

C. plastids

D. lysosomes

Answer: B

 Watch Video Solution

207. Cell theory was given by

A. Schleiden and Schwann

B. Virchow

C. Hooke

D. Haeckel

Answer: A

 Watch Video Solution

208. Cell arise form pre-existin cell was stated by

A. Haeckel

B. Virchow

C. Hooke

D. Schleiden

Answer: B

Watch Video Solution

209. Kitchen of the cell is

A. mitochondrion

B. chloroplast

C. endoplasmic reticulum

D. Golgi-apparatus

Answer: B

Watch Video Solution

210. Organelle withour a cell membrane is

A. ribosome

B. nucleus

C. mitochondrion

D. chloroplast

Answer: A

Watch Video Solution

211. Which of the following are covered by a single membrane ?

A. mitochondra

B. vacuole

C. nucleus

D. plastid

Answer: B

Watch Video Solution

212. Lipid molecules in the cell are synthesized by

A. smooth endoplasmic reticulum

B. rough endoplasmic reticulum

C. Golgi apparatus

D. plastids

Answer: A

 Watch Video Solution

213. The proteins and lipids, essential for building the cell membrane, are manufactured by

A. endoplasmic reticulum

B. Golgi appartus

C. mitochondria

D. peroxisomes

Answer: A

Watch Video Solution

214. Lysosomes arise from

A. endoplasmic reticulum

B. Golgi apparatus

C. nucleus

D. mitochondria

Answer: B

Watch Video Solution

215. Amoeba acquires its food through a process termed as

A. exocytosis

B. endocytosis

C. plasmolysis

D. exocytosis and endocytosis both

Answer: B

Watch Video Solution

216. Which cell organelle plays a crucial role in detoxifying many poisons and drugs in a cell ?

A. Golgi apparatus

B. lysosmes

C. somooth endoplasmic reticulum

D. vacuoles

Answer: C

Watch Video Solution

217. Chromosomes are made up of

A. DNA

B. protein

C. DNA and protein

D. RNA

Answer: C

 Watch Video Solution

218. Organelle other than nucleus, containing DNA is

A. endoplasmic reticulum

B. mitochondria

C. Golgi apparatus

D. lysosomes

Answer: B

 Watch Video Solution

219. Find out the false statement

A. Golgi apparatus is involved with the formation of lysosomes

B. nucleus, mitochondria and plastid have DNA, hence they are able to maek their own structural proteins

C. Mitochondria is said to be the power house of the cell as ATP is generated in them

D. cytoplasm is clled as protoplasm

Answer: D

 Watch Video Solution

220. Cell wall of which one of these is not made us of cellulose ?

A. bacteria

B. Hydrilla

C. mango tree

D. cactus

Answer: C

 Watch Video Solution

221. A cell will swell up if

A. the concentration of wate molecules in the cell is higher than the concentratio of water molecules in surrounding medium

B. the concentration of water molecules in sorrunding 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 doen not matter

Answer: B

 Watch Video Solution

222. Plasmolysis in a plant cell is defined as

A. break down (lysis) of plasma membrane in hypotonic medium

B. shrinkage of cytoplasm in hypertonic medium

C. shrinkage of nucleoplasm

D. none of them

Answer: B

Watch Video Solution

223. Which of these is not related to endoplasmic reticulum ?

A. it behaves as transport channel for proteins between nucleus and cytoplasm

B. it transport materials between various regions in cytoplasm

C. it can be the site of energy generation

D. it can be the site for some biochemical activities of the cell

Answer: C

Watch Video Solution

224. Select the odd one out

A. the movement of water across a semipermeable membrane is affected by the amound of substances dissolvbed in it,

B. membranes are made of organic molecules such as proteins and lipids.

C. molecules soluble in organic solvents can easily pass through the membrane.

D. plasma membranes contain chitin sugar in plants.

Answer: D

 Watch Video Solution

225. Following are a few definitions of osmosis. Read carefully and select the correct definition.

A. movement of wate molecules from a refion of higher concentration to a region of lower concentraration 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

concentratio of solution through permeable memberane.

D. movement of solute molecules from lowe concentration to higher concentration of solution through a semipermeable membrne.

Answer: A

Watch Video Solution

226. Who discovered cells, and how?

Watch Video Solution

227. Why is the cell called the structural and functional unit of life

Watch Video Solution

228. How do substances like carbon dioxide (CO_2) and water (H_2O) move in and out of

the cell?

Watch Video Solution

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

Watch Video Solution

230. DIFFERENCE BETWEEN PROKARYOTIC CELLS & EUKARYOTIC CELLS

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

233. Why are lysosomes known as suicide bags?

Watch Video Solution

234. Where are proteins synthesised inside the cell?

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

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

Watch Video Solution

241. How does an Amoeba obtain its food?

Watch Video Solution

242. What is osmosis?

Watch Video Solution

243. Carry out the following osmosis experiment: Take four peeled potato halves and scoos each one out to make potato cups.

One of these potato cups should be made from a boiled potato. Put each potato cup in a trough containing water. Now, (a) Keep cup A empty (b) Put one teaspoon sugar in cup B (c) Put one teaspoon salt in cup C (d) Put one teaspoon sugar in the boiled potato cup D. Keep these for two hours. Then observe the four potato cups and answer the following: (i) Explain why water gathers in the hollowed portion of B and C. (ii) Why is potato A necessary for this experiment? (iii) Explain why water does n

Watch Video Solution

244. Why are lysosome known as suicidal-bags of a cell?

Watch Video Solution

245. Do yout agree that 'A cell is a building unit of on organism'. If yes, explain why?

Watch Video Solution

246. Why does the skin of your finger shrink when you wash clothes for a long time?

Watch Video Solution

247. Why is endcytosis found is animals only?

Watch Video Solution

248. A person takes concentrated solution of salt, after sometime, he starts vomiting. What

is the phenomenon responsible for such situation? Explain.

Watch Video Solution

249. Name any cell organelle which is non-membranes.

Watch Video Solution

250. We eat food composed of all the nutrients like carbohydrates, proteins, fats,

vitamins, minerals and water. After digestion, these are absorbed in the form of glucose, amino acids, fatty acids, glycerol, etc. what mechanisms are Involved in absorption of digested food and water?

Watch Video Solution

251. If you are provided with some vegetables to cook. You generally add salt into the vegetables during cooking process. After

adding salt, vegetables release water. What mechanism is responsible for this?

Watch Video Solution

252. If cells of onion peel and RBC are separately kept in hypotonic solution, what among the following will take place? Explain the reason for your.

(a) Both the cells will swell.

(b) RBC will burst easily while cells of onion peel will resist the bursting to some extent.

(c) Both (a) and (b) are correct.

(d) RBC and onion peel cells will behave similarly.

Watch Video Solution

253. Bacteria do not have chloroplast, but some bacteria are photoautotrophic in nature and perofmr photosynthesis. Which part of bacterial cell performs this?

Watch Video Solution

254. Match the items of A and B

A	B
(a) Smooth endoplasmic reticulum	(i) *Amoeba*
(b) Lysosome	(ii) Nucleus
(c) Nucleoid	(iii) Bacteria
(d) Food vacuoles	(iv) Detoxification
(e) Chromatin material and nucleolus	(v) Suicidal bag

Watch Video Solution

255. Write the name of different plants parts in which chromoplast, chloroplast and Leucoplast are present.

Watch Video Solution

256. Name the organelles which show the analogy written as under

(i) Transporting chennels of the cell

(b) Power house of the cell

(c) Packaging and dispatching unit of the cell

(d) Digestive bag of the cell

(e) Storages sacs of the cell

(f) Kitchen of the cell

(g) Control room of the cell

 Watch Video Solution

257. How is bacterial cell different from onion pell?

Watch Video Solution

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

Watch Video Solution

259. How does an Amoeba obtain its food?

Watch Video Solution

260. Name the two organelles in a plant cell that contain their own genetic material and ribosome.

Watch Video Solution

261. Why are lysosomes also known as scavengers of the cells?

Watch Video Solution

262. Which cell organelle controls most of the activities of the cell?

Watch Video Solution

263. Which kind of plastid is more commin in (a) roots of the plant (b) leaves of the plant (c) flowers nd fruits

Watch Video Solution

264. Why do plant cells posses large sized vacuole?

Watch Video Solution

265. How are chromatin, chromatid and chromosomes related to each other?

Watch Video Solution

266. What are the consequences of the following conditions?

(a) A cell containing higher water concentration than the surrounding medium

(b) A cell having low water concentration then tha surrounding medium.

(c) A cell having equal water concentration to its surrounding medium.

Watch Video Solution

267. Illustrate only a plent cell as seen under electron microscope. How its different from animal cell?

Watch Video Solution

268. Draw a neat labelled diagram of an animal cell.

Watch Video Solution

269. Draw a well labelled diagram of an eukaryotic nucleus. How is it different form nucleoid?

Watch Video Solution

270. Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis?

Watch Video Solution

271. In brief state what happens when

(a) Dry apricots are left for sometime in pure water and later transferred to sugar solution?

(b) A red blood cell is kept in concentrated

saline solution?

(c) The plasma-membrane of a cell breaks down?

(d) When Rheo leaves are boiled in water first and then a drop of sugar syrup is put on it, osmosis does not occurs, due to the death of the cells of the leaf. This shown that selective permeability is property of living plasma membrane.

(e) Golgi complex helps in the package, storage and transfer of proteins synthesised by ribosomes. Thus, when ribosomes are removed the cell will not function propertly.

Watch Video Solution

272. Draw a neat diagram of plant cell and label any three parts which differentiate it from animal cell.

Watch Video Solution

273. What happens to an animal cell when it is placed ina very dilute external medium? Why?

Watch Video Solution

274. (a) Draw a plant cell and name seven important organelles found in it.

(b) Name one organelle that can make some of its protein in a plan cell and also mention one function of such organelle.

Watch Video Solution

275. (a) Name and draw a cell which does not have a well defined unclear region. Lable any four parts.

(b) mention two ways by which a photosynthesing cell belonging to this group differs from a cell of your body.

Watch Video Solution

276. What is functional unit of life ?

Watch Video Solution

277. What is the difference between plasma membrane and cell wall ? Give the functions of

each one.

Watch Video Solution

278. Main cellular site of ATP generation is.....

Watch Video Solution

279. Which cellular organelle uses molecular oxygen like mitochondria but protects the cell from toxic metabolic by products ?

Watch Video Solution

280. Differentiate between chromatin and chromosome.

Watch Video Solution

281. Differentiate between chromatin and chromosome.

Watch Video Solution

282. Which molecules are present in chromatin.

Watch Video Solution

283. Which types of ribosomes are found in prokaryotes and eukaryotes?

Watch Video Solution

284. Which structure is called little nucleus?

Watch Video Solution

285. Why is nucleus called director of the cell ?

Watch Video Solution

286. Cell inclusions are

(a) non-living materials present in the cytoplasm

(b) another name of cell organelles

(c) cytoskeletal framework of cell

(d) combined name for cell wall and plasma mambran

Watch Video Solution

287. Which of these is wrongly matched ?

(a) chloroplasts - chlorophyll

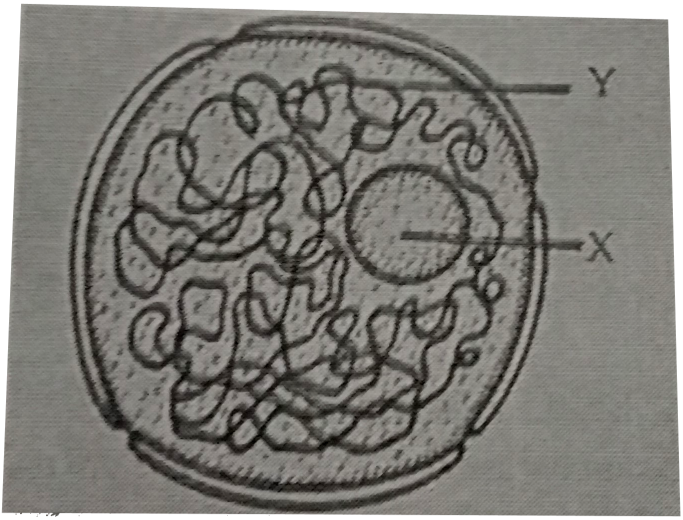
(b) elaisplasts - starch

(c) amyloplasts-carbohydrates

Watch Video Solution

288. What will happen if chlaroplast is taken out of the cell and illuminated ?

Watch Video Solution

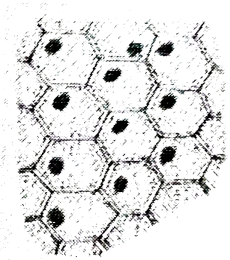


289.

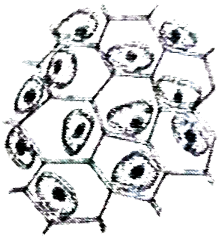
(a) Identify the above figure

(b) Lable X and Z ltbrlt (c) What is the function of X ?

Watch Video Solution



A cells



B cells

290.

(a) Identify A- and B-cells.

(b) What will happen if B-cells are kept in hypertonic solution ?

(c) What will happen if A cells are kept in hypertonic solution ?

Watch Video Solution

291. What will heppen if

(a) Excess amount of fertilizer is added to a green lawn ?

(b) Salt is added to cut pieces of raw mango.

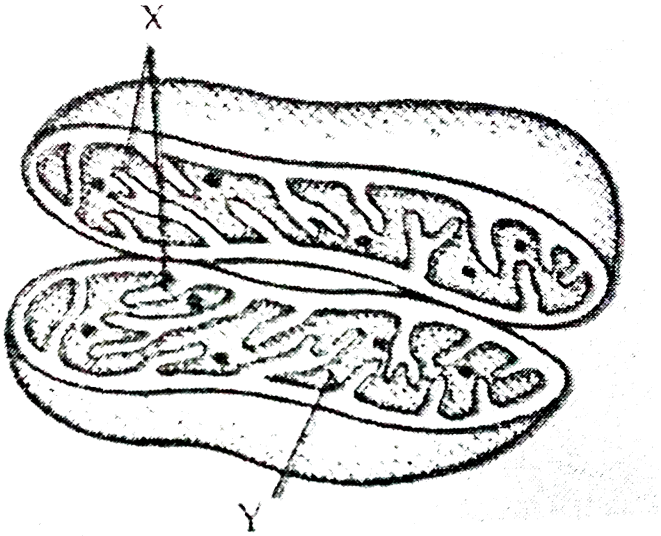
Watch Video Solution

292. (a) Lable X and Y.

(b) What is the function of X ?

(c) What is the composition of Y ?

(d) Identify the above diagram and what is its common name ?



Watch Video Solution

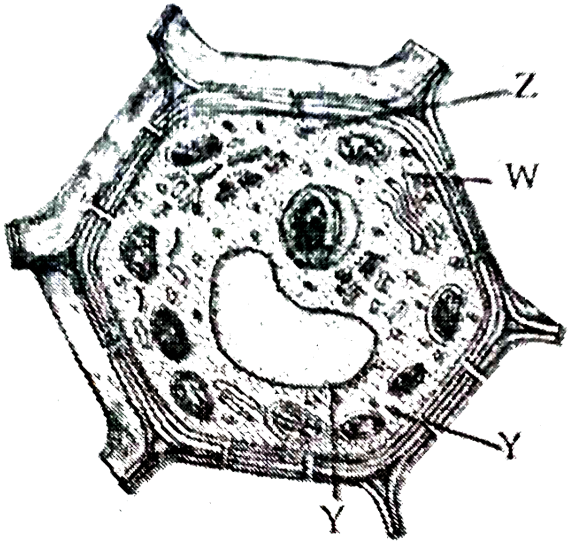
293. (a) Lable W,X,Y, and Z.

(b) What is the covering membrane of X known as ?

(c) Which of them contain hydrolytic enzymes ?

(d) Which one of them takes part in storage modification and packaging of various

chemicals?



Watch Video Solution

294. (a) Name the phenomenon which helps fresh water unicellular organisms (e.g., Amoeba) continuosuly gain water in their

bodies. Also name the mechanisms by which these organisma throw out exces of water from their bodies.

(b) Give at least two examples in plants where similar phenomenon in used to gain water.

Watch Video Solution

295. WHAT IS A CELL?

Watch Video Solution

296. What is prokaryotic cell ?

Watch Video Solution

297. Define the following terms: cell prokaryotic cell, eukaryotic cell, organelle.

Watch Video Solution

298. The term cell was coined by and the cell was first seen by

Watch Video Solution

299. Name the book in which Robert Hooke published his work.

Watch Video Solution

300. Name the scientist who first studied living cell?

Watch Video Solution

301. Name tow factors on which shape of the cell depends.

Watch Video Solution

302. Name the smallest and the largest cell.

Watch Video Solution

303. Name the longest cell in the human body.

Watch Video Solution

304. How many cells are present in human body ?

Watch Video Solution

305. Name the structure from which all multicelluar organisms develop.

Watch Video Solution

306. Give tewo examples of prokaryotic cell.

Watch Video Solution

307. Give one example each of unicellular and multicellular organism.

Watch Video Solution

308. Who proposed the "Cell theory"

Watch Video Solution

309. What is light microscope ?

Watch Video Solution

310. What is electron microscope ?

Watch Video Solution

311. Is plasma mebrane living or dead ?

Watch Video Solution

312. What is plasma membrane ?

Watch Video Solution

313. Difine the cell.

Watch Video Solution

314. What is protoplasm ?

Watch Video Solution

315. Name the boomolecules present in plasma membrane.

Watch Video Solution

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

Watch Video Solution

317. What type of organization is found in the plasma membrane ?

Watch Video Solution

318. DIFFUSION

Watch Video Solution

319. What is osmosis?

Watch Video Solution

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

Watch Video Solution

321. What is the main function of plasma membrane ?

Watch Video Solution

322. What is endosmosis ?

Watch Video Solution

323. What is exosmosis ?

Watch Video Solution

324. Define, (i) Hypertonic solution, (ii) Hypotonci solution, (iii) Isotonic solution.

Watch Video Solution

325. What is endocytosis ?

Watch Video Solution

326. What is exocytosis ?

Watch Video Solution

327. ACTIVE TRANSPORT

Watch Video Solution

328. ACTIVE TRANSPORT

Watch Video Solution

329. Is the plant cell wall living or dead?

Watch Video Solution

330. Can you name the two organelles we have studied that contain their own genetic

material?

Watch Video Solution

331. Name the following :

Watch Video Solution

332. Main component of the cell wall of fungi is

Watch Video Solution

333. What is the main function of each of the following organelles ?

(a) Ribosome, (b) Cell wall

Watch Video Solution

334. Name the cell organelle in which following structures are present :

(a) Cristae, (b) Stroma,

(c) Centriole, (d) Chromosome,

Watch Video Solution

335. What is the main fucntion of each of the following organelles" (a) Golgi bodies, (b) Vacuole.

Watch Video Solution

336. What cell organelle is responsible for release of energy at ATP ?

Watch Video Solution

337. What of ATP stand ?

Watch Video Solution

338. Name the nucleic acids that are present in an animal cell.

Watch Video Solution

339. Do the plant cells contsin centriole ?

Watch Video Solution

340. Write two differences between plant cell and animal cell.

Watch Video Solution

341. DIFFERENCE BETWEEN PROKARYOTIC CELLS & EUKARYOTIC CELLS

Watch Video Solution

342. Write down difference between organ an organelle.

Watch Video Solution

343. Write down differences between nucleus and mucleoid.

Watch Video Solution

344. Mention differences between light microscope and electron microscope.

Watch Video Solution

345. Give a brief account of discovery of the cell.

Watch Video Solution

346. Describe the proteins of plasma membrane.

Watch Video Solution

347. Describe structure and functions of plasma membrane.

Watch Video Solution

348. Give an example of diffusion across plasma mrmbrane.

Watch Video Solution

349. Write down the differences between diffusion and osmosis.

Watch Video Solution

350. Write a note on endocytosis.

Watch Video Solution

351. What would happen when eukaryotic cells are placed in hypotonic, hypertonic and isotonic solutions?

Watch Video Solution

352. Name the following :

(a) Smallest cell organelle

(b) Largest cell organelle,

(c) ER studed with ribosomes

(d) Functional segments of the DNA molecule.

Watch Video Solution

353. Distinguish between the following

(a) Chromoplast and chloroplast

(b) Ribosome and centrosome.

Watch Video Solution

354. Write main differences between plant and animal cells.

Watch Video Solution

355. What will happen in a cell if its nucleus removed? Give reasons in support of your answer.

Watch Video Solution

356. Explain why do spinach look green papaya yellow and edible part of water melon red ?

Watch Video Solution

357. Write down two main functions of

(a) Endoplasmic reticulum

(b) Lysosome.

Watch Video Solution

358. Name the following

(a) The cell organelle which synthesizes protein.

(b) The type of plastid which stores food.

Watch Video Solution

359. Why are lysosomes known as suicide bags?

Watch Video Solution

360. Define the following terms :

(a) Cell inclusions (b) Cytosol

(c) Protoplasm (d) Nucleoplasm.

Watch Video Solution

361. Where do the ribosomes get synthesized ?

Watch Video Solution

362. Write short notes on

(a) Mitochondria, (b) Plastids.

Watch Video Solution

363. Write names of cell organelles.

Watch Video Solution

364. What are three main functional regions of the cell ?

Watch Video Solution

365. What is the location of following in the cell,

(a) Chromatin (b) Chromosome

(c) Tonoplast (d) Nucleolus

Watch Video Solution

366. What are the genes ? Where are they located in the cell ?

Watch Video Solution

367. Lysosomes are also called digestive bags. Why?

Watch Video Solution

368. Which organelle is the " power plant" of eukaryotic cell. Write in brief its functions.

Watch Video Solution

369. What are centrioles? Write about their function.

Watch Video Solution

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

Watch Video Solution

371. Draw a well labelled diagram of typicla prokaryotic cell ?

Watch Video Solution

372. What does the term plasmolysed mean when used to describe a cell ?

Watch Video Solution

373. Describe with a diageam the fluid mosaic organisation of the plasma membrane.

Watch Video Solution

374. Draw a neat labelled diagram of an animal cell.

Watch Video Solution

375. Give an illustrated account of nucleus.

Watch Video Solution

376. Write short note on the following :

(a) Golgi apparatus (b) Mitochondria

Watch Video Solution

377. How does it cell shwo division of labour ? Is there any parallelism between working of the cell and ore society ?

Watch Video Solution

378. Khushi wanted to eat rice and kideny bean (rajmah). She requested her mother to cook the sme for lunch tomorrwo. At night her mother tol a cup of kidney bean and put them in a coiilainer leaving some water. She kept the container covered overnight. Next morning, she cooked rice and kidney beans for lunch. Khushi inquired her mother the following questions:

(i) Why did she soak didney beans in water

(ii) Name the scientific phenomenon involved

in above process.

(iii) Name alteast one more foood item that is cooked in this way.

Watch Video Solution

379. One day Muskan saw her mother making packle. Her mother cut of the corrots, turnips and cauliflowers into small pices, wahed them and put them in the sun for few hours. Therefore, she mixed common salt oil, paste of onion , ginger and garlic, gur, res chili,

turmeric powser acetic andic, etc., as per requirement with the cut vegetables and heated them. After cooling she put the contents in the air tight jar and kept it in the sun for many days.

(i) Why dis Muskan mother cut the vegetables into small pieces and put them in the sun for few hours ?

(ii) Why did she mix common salt in the cut vetgetables and lieated it ? Name the process involved.

(iii) Why did she mix acetic acid ?

Watch Video Solution

380. What is the basis of long lifr of pickles and jams ? What lesson one gets from this fact ?

Watch Video Solution

381. Arvind sometimes go for late evening walk with his father who has a background of biology. While walking in the colony park, he observed many plants having colour flowers.

He also saw few plants having white flowers. Most of these flowers emit pleasant fragrance (=aroma). out of curiousty, Arvind asked his futher the following questions:

(i) Why do plants have variously coloured folowers ? GIve two reasons.

(ii) Why do certain flowers emit fragrance ? How does fragrance of flowers sperad in the environment ?

(iii) Which scientific phenomenon is involved when (a) fragrance spreads in the house at the time of coking of food in the kitchen, (b)

exchange of gases occurs acorss the respiratory surface.

Watch Video Solution

382. What are the functionsof plasma membrane ? How is the plams membrane able to perform diverse functions. Give an example of diversity in functioning in any segment of human society.

Watch Video Solution

383. (i) A fruit is green when unripe but become beautifully coloured when ripe. How does this change occur ?

(ii) What is the importance of this change ?

(iii) What is mutualism involved ?

(iv) Give an example of such a mutualism in human society.

Watch Video Solution

Questions Bassed On Ncert Question Bank Examplar Problems In Science

1. Deaw a plant cell and label the parts which

(a) Determine function and development of the cell.

(b) Provides resistane to microbes and to withstnd hypotonic external medium without injury.

(c) Packages materials coming from the endoplasmic reticulum.

(d) Is a fluid contained inside the nucleus.

(e) Is site for many biochemical reaction necessary to sustain life.

View Text Solution