



BIOLOGY

BOOKS - MBD BIOLOGY (ODIA ENGLISH)

THE CELL

Question Bank

1. Which one of the following is not a constituent of cell membrane?

- A. Glycolipids
- B. Proline
- C. Phospholipids
- D. Cholestrol

Answer: B

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2. The mineral present in cell wall is:

B. Ca

C. K

D. Mg

Answer: B

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3. Fluid mosaic model was proposed by:

A. Singer and nicolson

B. Davidson and Danielli

C. Robertson

D. Watson and crick

Answer: A



4. Most of the cell membranes are principally

composed of :

A. Protein

B. Lipid

C. protein and lipid

D. Cellulose

Answer: C



5. Most abundant lipid in cell membrane is:

A. Phospholipid

B. Starch

C. Oil

D. Sulpholipid

Answer: A

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6. In which method of transport in plasma membrane does not require carrier molecule?

A. Active transport

B. Facilitated diffusion

C. simple diffusion

D. Na K pump

Answer: C

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7. Which statement is incorrect for ion channels?

A. They are proteins

B. Movement through them is simple

diffusion

C. Movement through them is from high to

low concentration

D. All ions pass through the same type of

channel

Answer: D

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8. In Na^+ 'K^+`pump of active transport there

is:

A. Efflux of Na^+ and influx of K+

B. Influx of Na^+ and efflux of K^+

C. Only efflux of Na^+

D. Influx and efflux of Na^+ only

Answer: A

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9. Simultaneous movement of two molecules across a membrane in the same direction is known as:

A. Antiport

B. Symport

C. Uniport

D. None of these

Answer: B

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10. Active transport is transport :

A. Require special membrane proteins

B. Highly selective

C. Requires ATP energy

D. All of the above

Answer: D

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11. Na^+/K^+ pump in a cell is a example of:

A. Osmosis

B. Diffusion

- C. Passive transport
- D. Active transport

Answer: D



12. Structural lipids of cell membrane are:

- A. Simple lipid
- B. Chromolipids
- C. Steroid

D. Phospholipids

Answer: D

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13. Which of the following components helps in builiding up of plasma membrane?

A. Protein, Vitamin, Lipid

B. Lipid, Mineral, protein

C. Protein , Lipid, Carbohydrate

D. Protein, lipid

Answer: C

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14. Sphaerosomes contain:

A. Cellulose reserve

B. Protein reserve

C. Lipid reserve

D. Both protein and lipid





15. Polymorphic cell organelle is:

A. Glyoxysome

- B. Lysosome
- C. Golgi complex
- D. Peroxisome

Answer: A



16. Which type of membrane is most abundant

within a cell?

A. ER membrane

B. Nuclear membrane

C. Golgi membrane

D. Plasma membrane

Answer: C





- 17. Plasmodesmata is:
 - A. Locomotory structure
 - B. Membrane connecting the nucleus with

plasmalemma

- C. Connections between adjacent cells
- D. Lignified cemented layers between cells

Answer: C

18. Middle lamella is composed mainly of:

A. Muramic acid

B. Calcium pectate

C. phosphoglycerides

D. Hemicellulose

Answer: B

19. Cytoskeleton is made up of:

A. Callose deposits

B. Cellulosic microfibrils

C. Proteinaceous filaments

D. Calcium carbonate granules

Answer: C

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20. Resin and turpentine are products of:

A. Teak

B. Oak

C. Eucalyptus

D. Pine

Answer: D

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21. Tonoplast is the membrane covering of:

A. Mitochondria

B. Vacuole

C. Chloroplast

D. Ribosome

Answer: B

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22. Chromosome is made up of:

A. DNA+ Pectin

B. RNA+DNA

C. DNA+Histone

D. Only histone

Answer: C



23. A typical nucleosome contains:

A. 100 bp of DNA Helix

B. 200 bp of DNA Helix

C. 300 bp of DNA Helix

D. 400 bp of DNA Helix

Answer: B

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24. Which of these is wrongly matched?

A. Chloroplast-Chlorophyll

B. Elaioplasts-starch

C. Chromoplasts-carotenoids

D. Amyloplasts-carbohydrates





25.70S Ribosomes is seen in:

- A. Bacterial cell
- B. Mitochondria
- C. Both(a)and(b)
- D. ER





26. Mitochondria are semi autonomous as they posses:

A. DNA

B. DNA+RNA

C. DNA+RNA+Ribosomes

D. Protein

Answer: C





27. The number of microtubles in a flagellum including those sharing three protofilaments with each other is:

A. 11

B. 20

C. 22

D. 10

Answer: B





28. The cytoplasm of adjacent plant cells is connected to each other by:

A. Plasmalemma

B. Desmosome

C. Plasmodesmata

D. Plasmotubule

Answer: C

29. Which one of the following is not considered as a part of the endomembrane system?

A. Golgi complex

B. Peroxisome

C. ER

D. Lysosome

Answer: B





30. Protein synthesis inside a cell takes place in:

A. Chloroplast

B. Mitochondria

C. Chromoplast

D. Ribosome

Answer: D

31. What are the structures called that given an appearance as "beads-on-string" in the chromosomes when viewed under electron microscope?

A. Genes

B. Nucleotides

C. Nucleosomes

D. Base pairs

Answer: C



32. Example of water soluble plant pigment is:

A. Chlorophyll-a

B. Chlorophyll-b

C. Anthocynin

D. Xanthophyll

Answer: C

33. Middle lamella is composed mainly of:

A. Calcium carbonate

B. Cellulose

C. Calcium pectate

D. Lignin

Answer: C

34. Important sites for the formation of glycoproteins and glycolipids is:

A. Vacuole

B. Golgi apparatus

C. Plastid

D. Lysosome

Answer: B

35. Which one of the following is not a cell inclusion?

A. Crystal

B. Vacuole

C. Starch

D. Fat droplets

Answer: B

36. Prokaryotic genetic system contain:

A. DNA and Histone

B. DNA without Histone

C. Histone but no DNA

D. Neither Dna nor Histone

Answer: B

37. Protein packaging cell organelle is:

A. Golgi body

B. ER

C. Lysosome

D. Ribosome

Answer: A

38. Nucleolus takes part in synthesis of :

A. mRNA

B. tRNA

C. rRNA

D. Protein

Answer: C



39. Enzymes associated with conversion of

fats and carbohydrates are located in:

A. Lysosome

B. Liposome

C. Peroxisome

D. Glyoxysome

Answer: D

40. The potential of plant cell to develop into

a full plant is:

A. Omnipotency

B. Totipotency

C. pleuripotency

D. None of the above

Answer: B

41. Membraneless cell organelle is,

A. Nucleus

B. Lysosome

C. Peroxisome

D. Ribosome

Answer: D

42. Microtubules takes part in:

- A. Muscle contraction
- **B. Secretion**
- C. Cell division
- D. Cell wall architecture

Answer: C



43. Mitochondria are semi autonomous as

they posses:

A. DNA

B. DNA and RNA

C. DNA, RNA and ribosomes

D. Proteins

Answer: C

44. Which is not a part of cell membrane?

A. Protein

B. Lipid

C. Carbohydrate

D. nucleic acid

Answer: D



45. Middle lamella is composed mainly of:

A. Ca carbonate

B. Ca pectate

C. Cellulose

D. Hemicellulose

Answer: B

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46. Microtubules takes part in:

A. Muscle contraction

B. Cell division

C. DNA replication

D. All of these

Answer: B

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47. SER is mainly found in cells actively engaged in:

A. Protein synthesis

B. DNA synthesis

C. Lipid synthesis

D. Secretion

Answer: C

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48. Mitochondria, ribosome and lysosome respectively, are covered by :

A. Double ,single and no membrane

B. NO single and double membranes

C. single, double and no membrane

D. Double no and single membrane

Answer: D

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49. Centre of phosphorylation is:

A. peroxisome

B. Ribosome

C. Oxysome

D. Centrosome

Answer: C



50. Which is adjacent to plasma membrane?

A. Middle lamella

B. Tonoplast

C. Primary wall

D. Secondary wall

Answer: D

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51. Phenomenon of differential staining of chromatin.

A. Heteropycnosis

B. Heterochromatin

C. Heterochromatinization

D. Eucromatin

Answer: A

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52. In chloroplasts chlorophyll is located at:

- A. Outer membrane
- B. Inner membrane
- C. Stroma
- D. Grana





53. An exception to cell theory is:

A. Virus

- B. Bacteria
- C. Mycoplasma
- D. All of these





- 54. Nucleolar organiser is:
 - A. Nucleolus
 - B. Nucleosome
 - C. Primary constriction
 - D. Secondary constriction

Answer: D

55. Smallest unit of cell wall is:

A. Microtubule

B. Fibril

C. Microfibril

D. Micelle

Answer: B

56. The red colour of beet root is due to:

A. Chloroplast

B. Chromoplast

C. Leucoplast

D. Betalain

Answer: B



57. Cell drinking is:

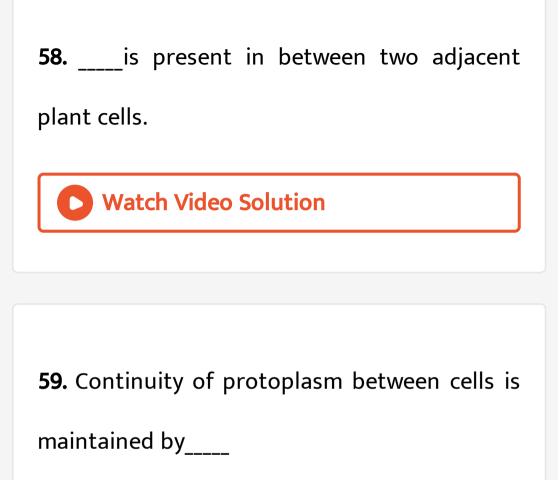
A. Exocytosis

B. Endocytosis

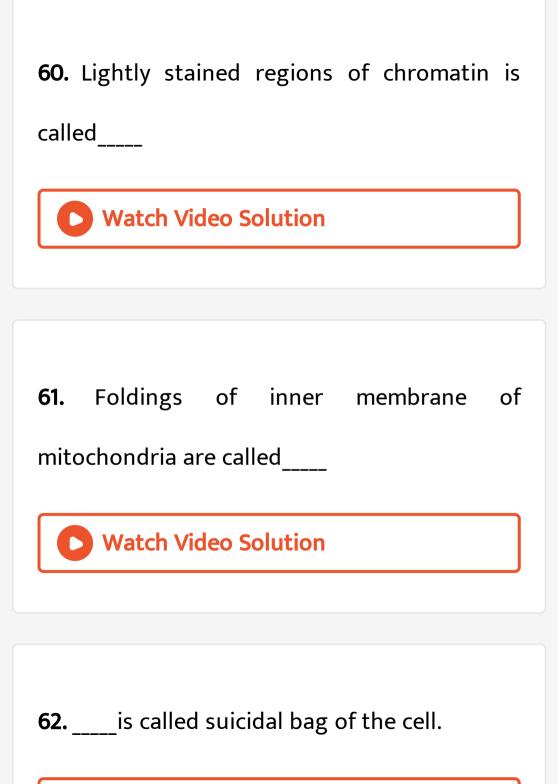
C. Phagocytosis

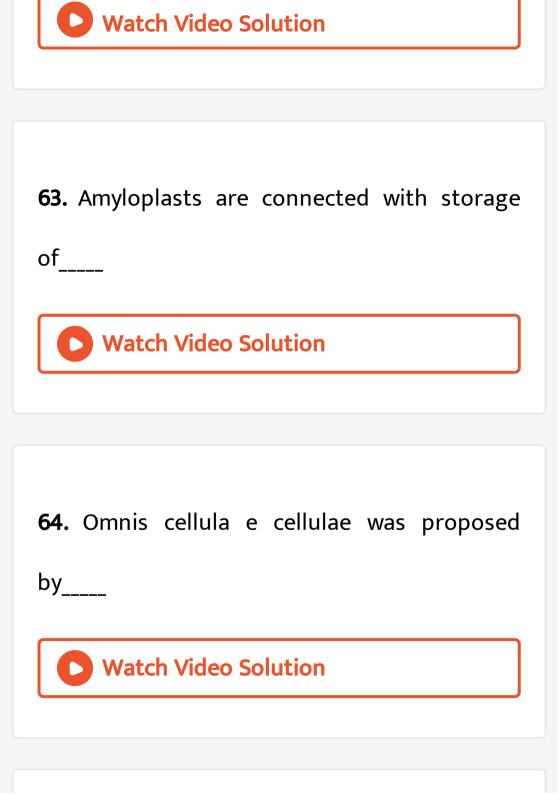
D. Pinocytosis

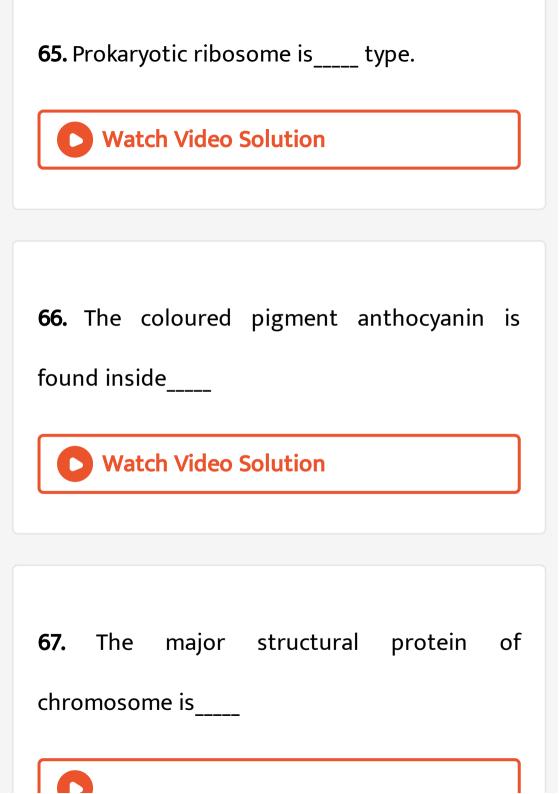
Answer: D

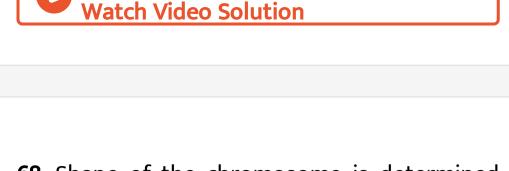












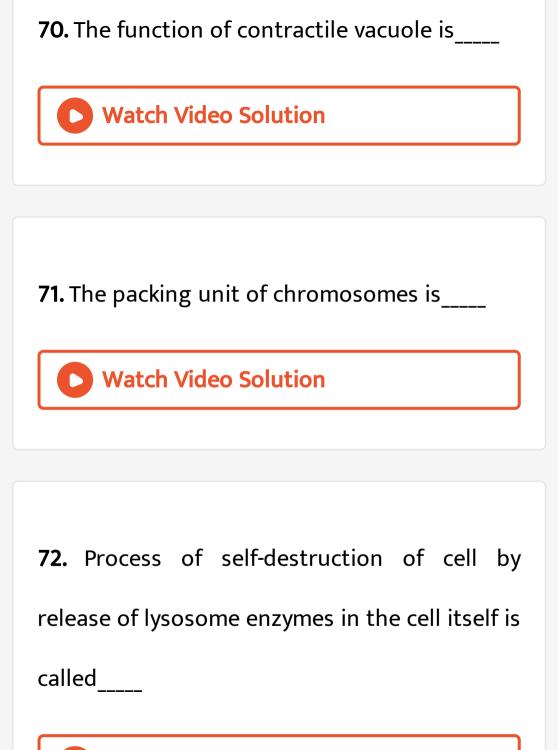
68. Shape of the chromosome is determined

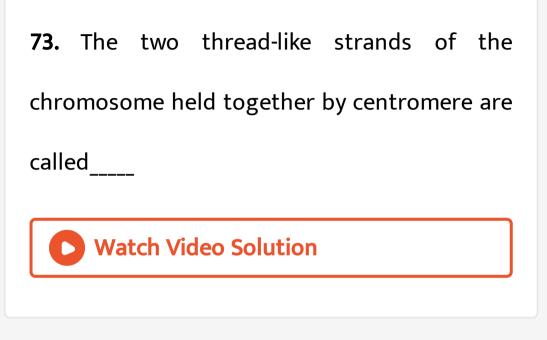
by the position of____

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69. Diffusion and osmosis are included

under____transport.



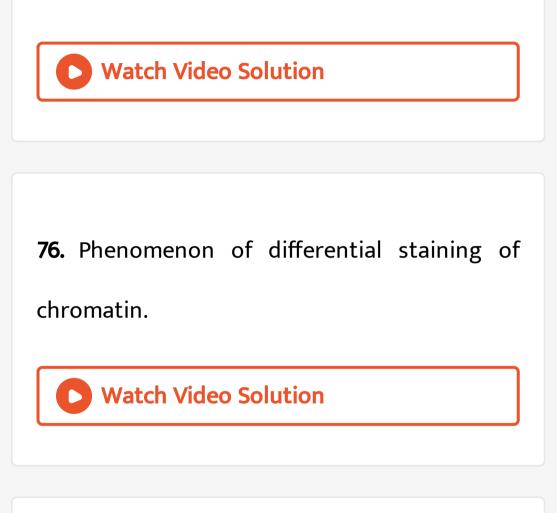


74. _____is the technique of seperation of sub-

cellular particles.

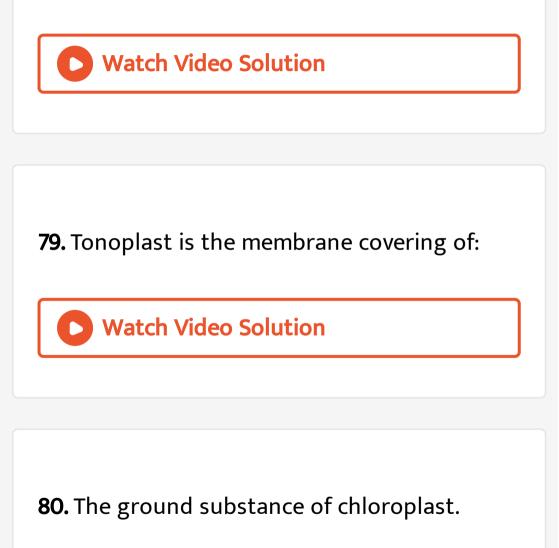


75. Stack of vesicles inside the chloroplast.



77. Darkly stained region of chromatin.

78. Homogenous clear region of protoplasm.



81. Single membraned vesicular cell organelles

with different enzymes.

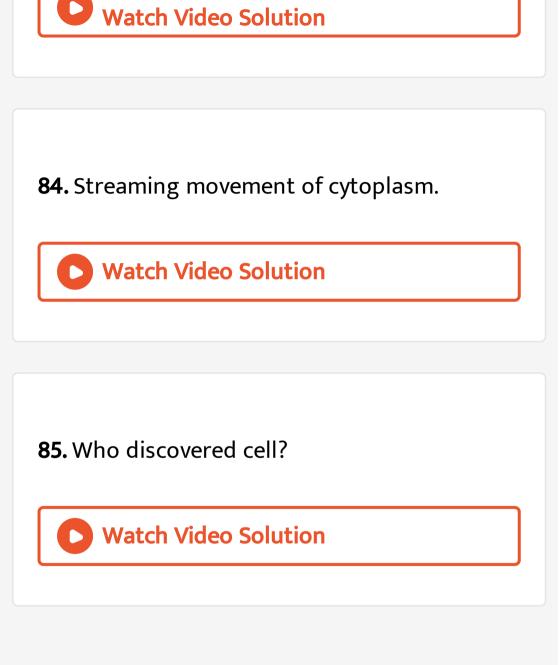


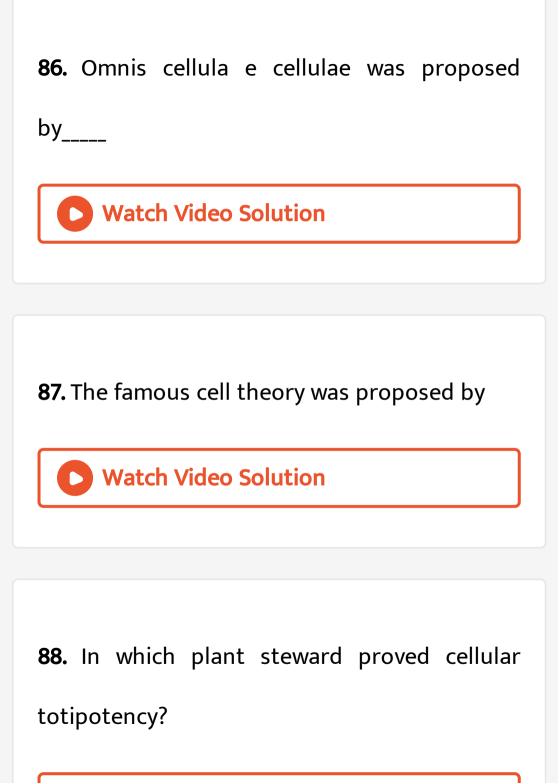
82. Starch-storing plastid is called as.

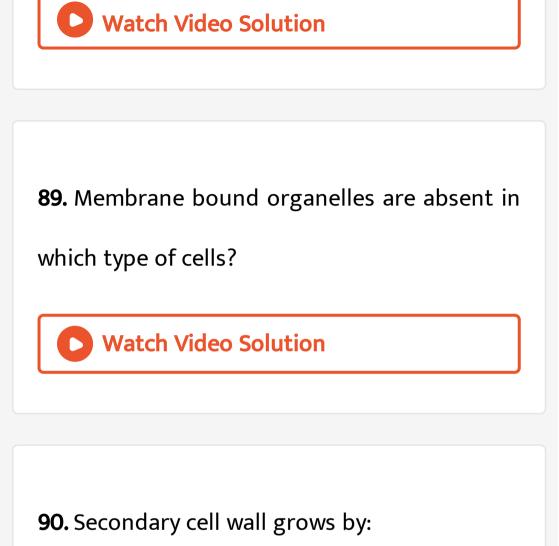
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83. Osmotic inflow of water inside the cell.







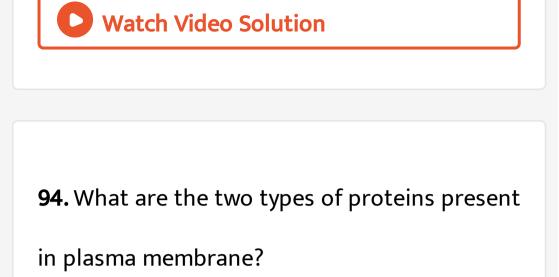




92. Sandwich model of plasma membrane was proposed by.



93. Fluid mosaic model was proposed by:



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95. Which compounds are responsible for cell

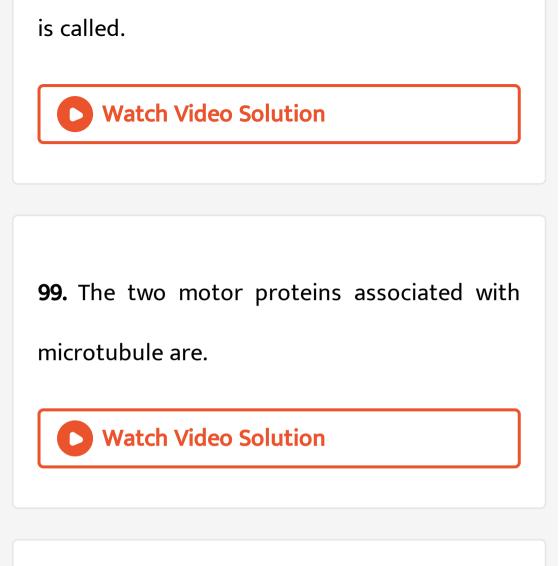
recognition?

96. What are the three types of transport of

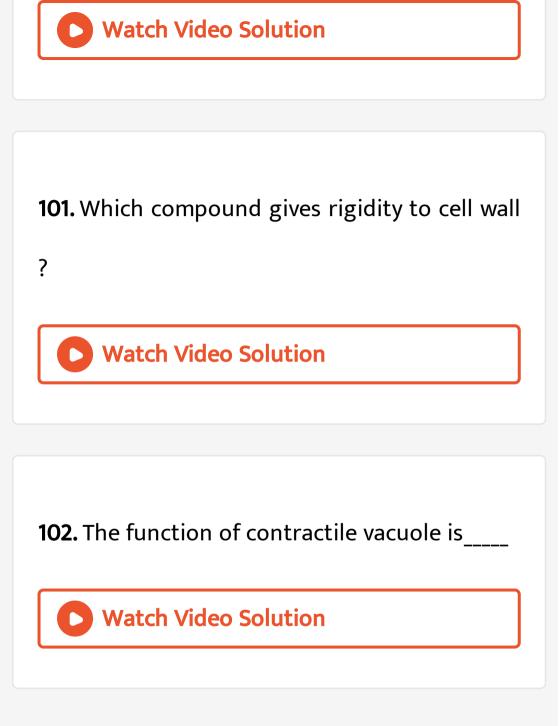
molecules through plasma membrane?

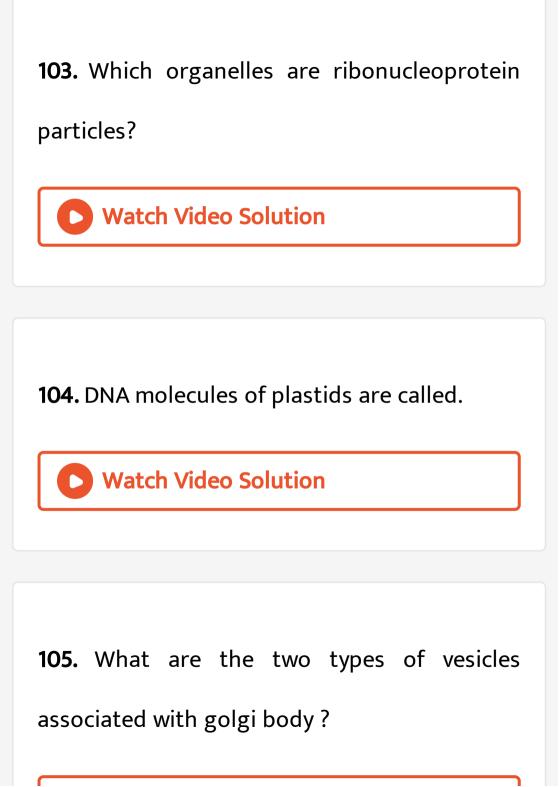
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97. What is phagocytosis ?	
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98. The highly structured three-dimensional network of protein fibrils in cytoplasmic matrix



100. Membranes of ER and other cell organelles interconnected to form a system known as .







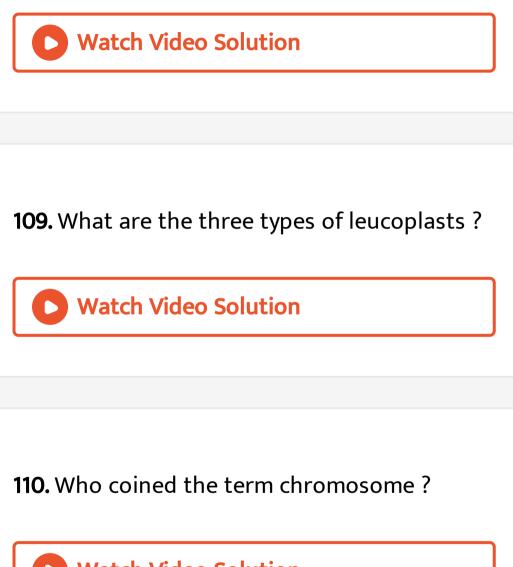
106. Which protein is present on coated vesicles ?

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107. What types of enzymes are present in

lysosomes?

108. Name two semi-autonomous organelles



111. What is absent in prokaryotic chromosome





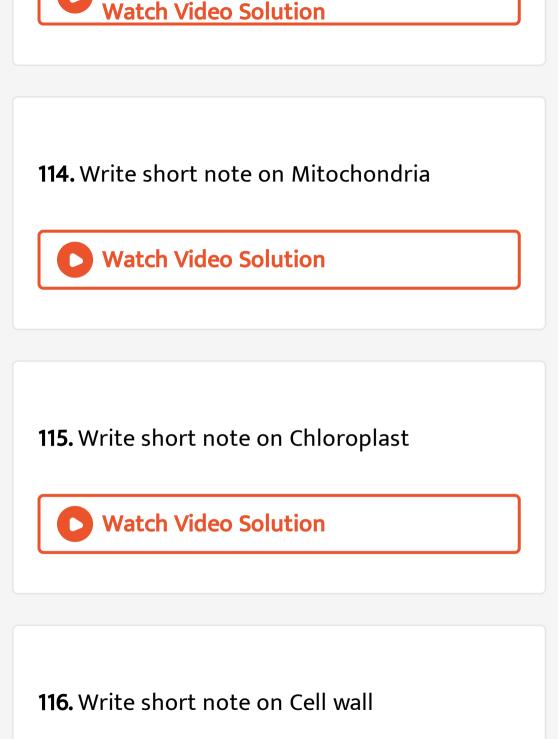
112. What is the fundamental packing unit of

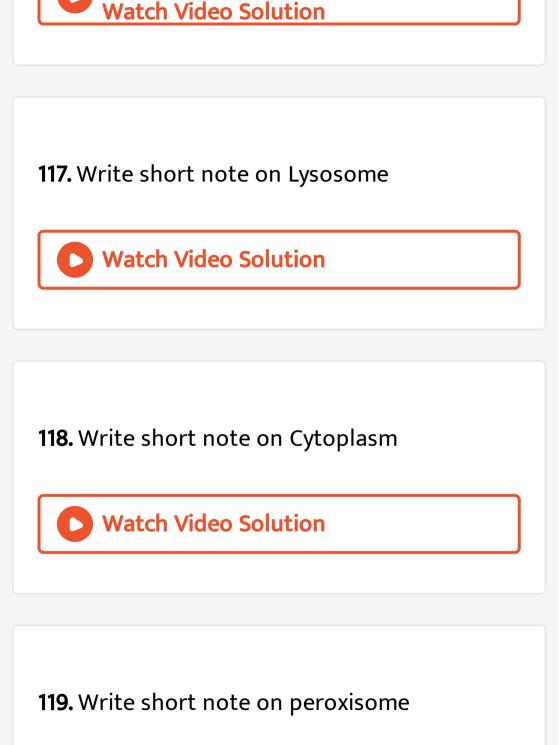
DNA?

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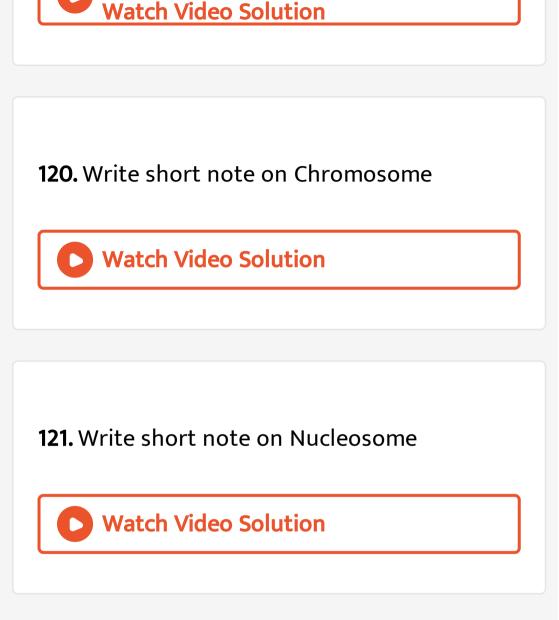
113. Write short note on Ribosome

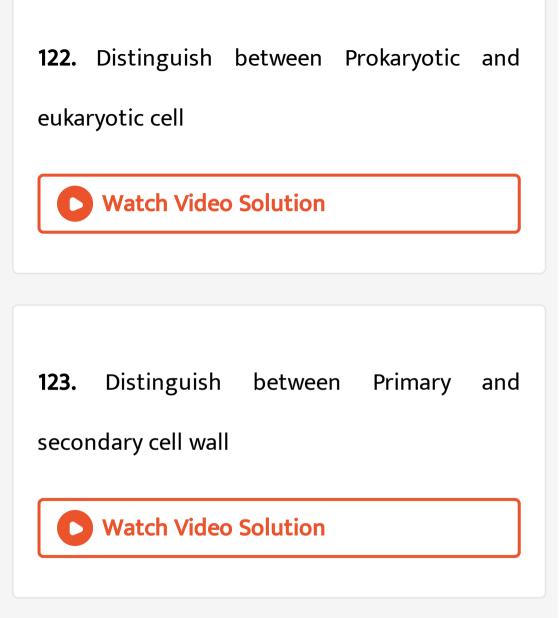












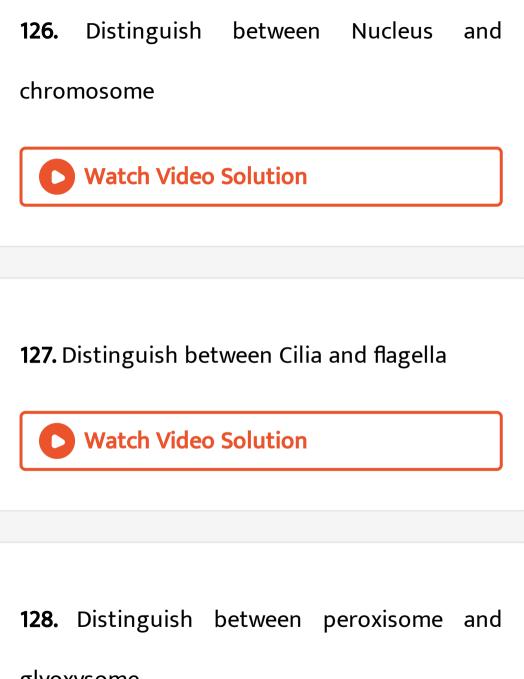
124. Distinguish between Plasma membrane

and nuclear membrane

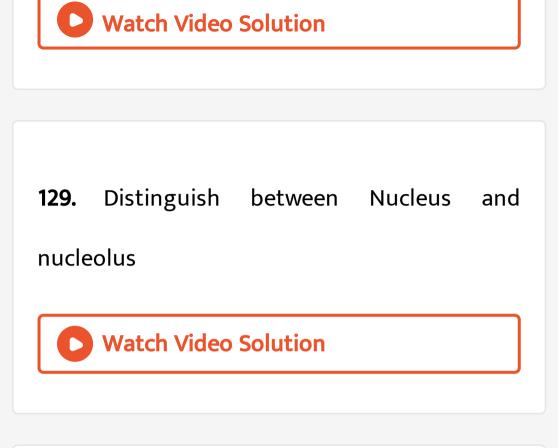
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125. Distinguish between Smooth and rough

endoplasmic reticulum



glyoxysome



130. Distinguish between Heterochromatin

and euchromatin

131. Distinguish between Chromosome and

chromatid



132. Give an account of ultra-structure of a

typical plant cell.

133. Draw a neat labelled diagram Of a typical plant cell and mention the differences between prokaryotic and eukaryotic cells.



134. Give an account of typical animal cell.



135. WRITE NOTES ON:(a) fluid mosaic model(b)

Chromosomes