

Chapter – 5 The Fundamental Unit of Life

Multiple Choice Questions

- Q1. Which of the following can be made into crystal?
- (a) A bacterium
- (b) An Amoeba
- (c) A virus
- (d) A sperm

Answer: Option c)

Virus is changed into crystals by the process of crystallization which change various components into solid crystal particles.

Q2. A cell will swell up if

(a) the concentration of water molecules in the cell is higher than the concentration of water molecules in surrounding medium

(b) the concentration of water molecules in surrounding 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 does not matter.

Answer: Option b) the concentration of water molecules in surrounding medium is higher than water molecules concentration in the cell

When a cell is placed in a solution of higher concentration of water molecules than water molecules in the cell called hypotonic solution, the cell absorbs water by the process of osmosis called endosmosis and swells up.

Q3. Chromosomes are made up of

- (a) DNA
- (b) protein
- (c) DNA and protein



(d) RNA.

Answer: Option c)

Chromosomes are thin, thread like structures in the nucleus which is made up of DNA (Deoxyribonucleic acid) and proteins. DNA stores information for cell to function, grow and reproduce.

Q4. Which of these options are not functions of ribosomes?

- (i) It helps in manufacture of protein molecules.
- (ii) It helps in manufacture of enzymes.
- (iii) It helps in manufacture of hormones.
- (iv) It helps in manufacture of starch molecules.
- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (iii) and (iv)
- (d) (iv) and (i)
- Answer: Option c)
- (iii) It helps in manufacture of hormones.
- (iv) It helps in manufacture of starch molecules.

Ribosomes are the Ribonucleoprotein (RNA + protein) units which helps in protein synthesis and in the formation of new cell membranes called membrane biogenesis or function as enzymes and hormones.

Q5. Which of these is not related to endoplasmic reticulum?

- (a) It behaves as transport channel for proteins between nucleus and cytoplasm.
- (b) It transports 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: Option c) It can be the site of energy generation



Endoplasmic reticulum (ER) transport proteins in the cytoplasm and the nucleus and helps in biochemical activities of the cell.

Q6. Following are a few definitions of osmosis. Read carefully and select the correct definition.

(a) Movement of water molecules from a region of higher concentration to a region of lower concentration through a semi- permeable membrane.

(b) Movement of solvent molecules from its higher concentration to lower concentration.

(c) Movement of solvent molecules from higher concentration to lower concentration of solution through a permeable membrane.

(d) Movement of solute molecules from lower concentration to higher concentration of solution through a semi-permeable membrane.

Answer: Option a)

Movement of water molecules from a region of higher concentration to a region of lower concentration through a semi- permeable membrane.

Movement of water molecules through semi permeable membrane beside concentration gradient called osmosis which is the passage of water from high water concentration through semi-permeable membrane to a region of low water concentration.

Q7. Plasmolysis in a plant cell is defined as

- (a) breakdown (lysis) of plasma membrane in hypotonic medium
- (b) shrinkage of cytoplasm in hypertonic medium
- (c) shrinkage of nucleoplasm
- (d) none of them

Answer: Option b)

shrinkage of cytoplasm in hypertonic medium

When a cell is in a hypertonic solution i.e., a solution whose concentration of water molecules outside is less than the concentration of water molecules inside the cell, the cell losses water by exosmosis and cause shrinkage of cell cytoplast which is called plasmolysis.

Q8. Which of the following are covered by a single membrane?

- (a) Mitochondria
- (b) Vacuole
- (c) Lysosome
- (d) Plastid

Answer: Option c)

Lysosome is a tiny spherical sac-like structure distributed in the cytoplasm, is surrounded by a double membrane and contains powerful enzymes which help in digesting and breaking down all organic material.

Q9. Find out the false sentences.

(a) Golgi apparatus is involved with the formation of lysosomes.

(b) Nucleus, mitochondria and plastid have DNA; hence they are able to make 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 called as protoplasm.

Answer: Option d)

Protoplasm is physical basis of life which consists of nucleus, cell membrane and cytoplasm. So, it is a part of protoplasm in the cell.

Q10. Find out the correct sentence.

(a) Enzymes packed in lysosomes are made through RER (rough endoplasmic reticulum).

(b) Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively.

(c) Endoplasmic reticulum is related with the destruction of plasma membrane.

(d) Nucleoid is present inside the nucleoplasm of eukaryotic nucleus.

Answer: Option b)

Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively

RER and SER prepare protein and lipid respectively. Endoplasmic reticulum (ER) forms of plasma membrane and organelles.



Q11. Which cell organelle plays a crucial role in detoxifying many poisons and drugs in a cell?

- (a) Golgi apparatus
- (b) Lysosomes
- (c) Smooth endoplasmic reticulum
- (d) Vacuoles

Answer: Option c)

Smooth endoplasmic reticulum (SER) detoxifies poisonous substances in a cell like aspirin, insecticides, petroleum products, pollutants etc.

Q12. The proteins and lipids, essential for building the cell membrane, are manufactured by

- (a) rough endoplasmic reticulum
- (b) Golgi apparatus
- (c) plasma membrane
- (d) mitochondria.

Answer: Option a)

The proteins and lipids, build the cell membrane and are made by rough endoplasmic reticulum (RER) and smooth endoplasmic reticulum (SER) respectively. The lipid molecules are made by smooth ER whereas protein molecules of cell membrane are made by rough ER.

Q13. The undefined nuclear region of prokaryotes are also known as

- (a) nucleus
- (b) nucleolus
- (c) nucleic acid
- (d) nucleoid.

Answer: Option d)



Nucleoid is a nuclear material of prokaryotes e.g., bacteria in which nuclear membrane is absent.

- Q14. The cell organelle involved in forming complex sugars from simple sugars are
- (a) endoplasmic reticulum
- (b) ribosomes
- (c) plastids
- (d) Golgi apparatus.
- Answer: Option d)
- Golgi apparatus
- Q15. Which out of the following is not a function of vacuole?
- (a) Storage
- (b) Providing turgidity and rigidity to the cell
- (c) Waste excretion
- (d) Locomotion

Answer: Option d)

Vacuoles store food, water and other substances and gives turgidity and rigidity to the plant cell. In unicellular organisms like Amoeba, the food vacuole is with food items, and helps in ejecting excess water and wastes called osmoregulation.

Q16. Amoeba acquires its food through a process, termed

- (a) exocytosis
- (b) endocytosis
- (c) plasmolysis
- (d) exocytosis and endocytosis both.

Answer: Option b)

endocytosis



It helps in absorption of food by the plasma membrane. It is phagocytosis i.e., intake solid material or pinocytosis i.e., intake of liquid material.

Q17. Cell wall of which one of these is not made up of cellulose?

- (a) Bacteria
- (b) Hydrilla
- (c) Mango tree
- (d) Cactus
- Answer: Option a)

Bacteria

Cell wall of plants are of cellulose but of bacteria is of peptidoglycan.

Q18. Silver nitrate solution is used to study

- (a) endoplasmic reticulum
- (b) Golgi apparatus
- (c) nucleus
- (d) mitochondria.
- Answer: Option b)

Golgi apparatus

Camillo Golgi (1898) discovered Golgi apparatus on observing the nerve cells of bam owl. Silver nitrate solution is used to stain Golgi apparatus.

Q19. Organelle other than nucleus, containing DNA is

- (a) endoplasmic reticulum
- (b) Golgi apparatus
- (c) mitochondria
- (d) lysosome.

Answer: Option c)



Nucleus, mitochondria have DNA and synthesis their own protein so called semiautonomous organelles.

- Q20. Kitchen of the cell is
- (a) mitochondria
- (b) endoplasmic reticulum
- (c) chloroplast
- (d) Golgi apparatus.

Answer: Option c)

Chloroplasts are green-colored plastids pigment chlorophyll which absorbs solar energy to prepare food by photosynthesis and so are called 'kitchen of the cells'

Q21. Lipid molecules in the cell are synthesized by

- (a) smooth endoplasmic reticulum
- (b) rough endoplasmic reticulum
- (c) Golgi apparatus
- (d) plastids.
- Answer: Option a)

smooth endoplasmic reticulum

The proteins and lipids for building the cell membrane are prepared by rough endoplasmic reticulum (RER) and smooth endoplasmic reticulum (SER) respectively. The lipid molecules for cell membrane are formed and injected into membrane of smooth ER and the protein molecules are formed and injected into membrane of rough ER.

Q22. Cell arises from pre-existing cell was stated by

- (a) Haeckel
- (b) Virchow
- (c) Hooke
- (d) Schleiden.



Answer: Option b)

Rudolf Virchow (1855) suggested that all cells rise from pre-existing cells. His aphorism was 'Omnis cellula e cellula'.

- Q23. Cell theory was given by
- (a) Schleiden and Schwann
- (b) Virchow
- (c) Hooke
- (d) Haeckel.

Answer: Option a) Schleiden and Schwann

All the plants and animals are made up of cells which is the basic unit of life, formulated by two biologists, M.J. Schleiden (1838) and Theodore Schwann (1839)

Q24. The only cell organelle seen in prokaryotic cell is

- (a) mitochondria
- (b) ribosomes
- (c) plastids
- (d) lysosomes.

Answer: Option b)

A prokaryotic cell is the cell that do not have cell organelles like nucleus, mitochondria, plastids, ER, Golgi apparatus etc. Ribosomes do not have membrane so are present in prokaryotic cells. e.g., bacteria, cyanobacteria, etc.

Q25. Organelle without a cell membrane is

- (a) ribosome
- (b) Golgi apparatus
- (c) chloroplast
- (d) nucleus.
- Answer: Option a)



Ribosomes are ribonucleoprotein which do not have any membrane. Golgi apparatus, chloroplast and nucleus are double membrane cell organelles.

Q26. 1 µm is

- (a) 10⁻⁶ m
- (b) 10⁻⁹ m
- (c) 10^{-10} m
- (d) 10^{-3} m

Answer: Option a)

The micrometer is micron and its S.I derived of length equal to 10^{-6} of meter.

Q27. Lysosome arises from

- (a) endoplasmic reticulum,
- (b) Golgi apparatus
- (c) nucleus
- (d) mitochondria.
- Answer: Option b)

Golgi apparatus

Golgi apparatus helps in the formation of lysosomes. Endoplasmic reticulum provides enzymes to Golgi apparatus for the formation of lysosome

Q28. Living cells were discovered by

- (a) Robert Hooke
- (b) Purkinje
- (c) Leeuwenhoek
- (d) Robert Brown.

Answer: Option a)



Cells were observed by Robert Hooke (1665) in a cork slice (dead cells) by primitive microscope. Leeuwenhoek (1674), with advanced microscope, discovered the free-living cells in pond water. The nucleus of the cell is discovered Robert Brown (1831). Purkinje (1839) named protoplasm.

Q29. Select the odd one out.

(a) The movement of water across a semi- permeable membrane is affected by the number of substances dissolved in it.

(b) Membranes are made of organic molecules like proteins and lipids.

(c) Molecules soluble in organic solvents can easily pass through the membrane.

(d) Plasma membranes contain chitin sugar in plants.

Answer: Option d)

Plasma membranes contain chitin sugar in plants.

Plasma membrane is a living, thin, elastic, semi- permeable membrane which has lipids 20-79%, proteins 20-70%, carbohydrates 1-5% and water 20%. Without Chitin sugar.

Short Answer Type Questions

Q30. Why are lysosomes known as suicide-bags of a cell?

Answer:

Lysosomes are called 'suicide bags' of the cell because they have digestive enzymes to digest the cell. When the cell gets damaged in cellular metabolism, lysosomes burst and digestive enzymes digest the cell. This is a mechanism is self-defense of cell.

Q31. Do you agree that "a cell is a building unit of an organism"? If yes, explain why?

Answer:

Yes, a cell is a building unit of an organism. An organism consists of various organ systems like digestive system, reproductive system etc. The organ systems have organs which are made of tissues. A tissue is a group of cells. So, a cell is the basic building or structural unit of an organism. Thus:

 $\text{Cell} \rightarrow \text{Tissue} \rightarrow \text{Organ} \rightarrow \text{Organelle} \rightarrow \text{Organism System}$



Q32. Why does the skin of your finger shrink when you wash clothes for a long time?

Answer:

Soap solution is called hypertonic solution i.e., it has more concentration than the cells of skin. When a cell is dipped in a hypertonic solution, water come out the cell by exosmosis causing shrinkage of the cell. So, while washing clothes, exosmosis occurs in the skin cells, so there is shrinkage of skin cells of our fingers.

Q33. Why is endocytosis found in animals only?

Answer:

Endocytosis is absorption of material of cells by plasma membrane. It does not occur in plants due to the presence of cell wall. Turgor pressure in a plant cell is due to the entry of water into it.

Q34. A person takes concentrated solution of salt, after some time, he starts vomiting. What is the phenomenon responsible for such situation? Explain.

Answer:

The phenomenon is exosmosis.as salt solution is hypertonic to the cells. When a person drinks concentrated salt solution, water comes out of the cells of the alimentary canal like stomach, intestine etc. by exosmosis so there is a loss of water in the cells and dehydration, diarrhea and vomiting occur.

Q35. Name any cell organelle which is non membranous.

Answer:

Ribosomes are the non-membranous cell organelles.

Q36. 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?

Answer:

Absorption is the process when nutrients go into the alimentary canal i.e., small intestine into the blood and lymph. The mechanisms are the absorption of digested food nutrients by diffusion and transportation. Glucose is absorbed by transportation, amino acids are



absorbed by transportation and diffusion, fatty acids and glycerol are absorbed by diffusion. The absorption of water is by osmosis.

Q37. 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?

Answer:

The mechanism is exosmosis so, on adding salt while cooking, the medium hypertonic i.e., medium has lower water concentration than the cells of vegetables. When a cell is dipped in a hypertonic solution, water undergoes exosmosis causing shrinkage. So, vegetables release water on adding salt while cooking.

Q38. 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 answer.

(a) Both the cells will swell.

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

(c) a and b both are correct.

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

Answer:

Cells of onion peel have a cell wall but RBCs or red blood cells have no cell wall. When the cells of onion peel and RBCs are dipped in hypotonic solution, RBCs will swell up and burst due to endosmosis. Cell wall of onion peel exerts a wall pressure when the cells become turgid which stops entry of water into the cells and the cells do not burst.

Q39. Bacteria do not have chloroplast but some bacteria are photoautotrophic in nature and perform photosynthesis. Which part of bacterial cell performs this?

Answer:

In photosynthetic bacteria, pigments and enzymes are found in plasma membrane which spread into the cytoplasm

Q40. Match the following A and B

S/No.	Column A		Column 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

Answer:

S/No.	Column A	S/No.	Column B
a)	Smooth endoplasmic reticulum	iv)	Detoxification
b)	Lysosome	V)	Suicidal bag
c)	Nucleoid	iii)	Bacteria
d)	Food vacuoles	i)	Amoeba
e)	Chromatin material and nucleolus	ii)	Nucleus

Q41. Write the name of different plant parts in which chromoplast, chloroplast and leucoplast are present

Answer:

Chromoplasts are in flowers, fruits and colorful parts of the plant. Chloroplasts are in green colored parts e.g., leaves of the plant. Leucoplasts are in non-photosynthetic and storage organs of the plant e.g., seeds, fruits, tubers, roots etc.

Q42. Name the organelles which show the analogy written as under -

- (a) Transporting channels of the cell
- (b) Power house of the cell
- (c) Packaging and dispatching unit of the cell
- (d) Digestive bag of the cell



- (e) Storage sacs of the cell
- (f) Kitchen of the cell
- (g) Control room of the cell

Answer:

- (a) Endoplasmic reticulum
- (b) Mitochondria
- (c) Golgi apparatus
- (d) Lysosome
- (e) Vacuoles
- (f) Chloroplast
- (g) Nucleus

Q43. How is a bacterial cell different from an onion peel cell?

Answer:

A bacterial cell is a prokaryotic cell with nucleoid. All the membrane-bound cell organelles are absent in a bacterial cell.

An onion peel cell, a eukaryotic plant cell consist of nucleus and membrane-bound cell organelles like mitochondria, ER, etc.

Q44. How do substances like carbon dioxide (CO2) and water (H2O) move in and out of the cell?

Answer:

Carbon dioxide (CO_2) and water (H_2O) move by diffusion and osmosis from higher concentration to lower concentration. CO_2 is a cellular waste stored in high concentration inside the cell. In the cell the concentration of CO_2 is lower than inside the cell. Due to difference of concentration of CO_2 , it moves out of the cell from high concentration to low concentration by diffusion. Water moves in and out of the cell from higher concentration to lower concentration through a semi-permeable membrane by osmosis.

Q45. How does Amoeba obtain its food?

Answer:



Amoeba get its food from endocytosis which is a small region of the plasma membrane to ingest the food particle and forms an intracellular membrane vesicle. Endocytosis is phagocytosis or intake solid material or pinocytosis or intake liquid material.

Phagocytosis is a process of feeding in some protozoans e.g., Amoeba. In this, a part of plasma membrane turns inside out in the region of solid food particle and consumes it. The membrane enclosed vesicle called phagosome with food particle separates from the plasma membrane into the cytoplasm, where its substances are digested by lysosomal enzymes.

Q46. Name the two organelles in a plant cell that contain their own genetic material and ribosomes.

Answer:

Mitochondria and plastids are the two cell organelles in a plant cell that have their own genetic material (DNA) and ribosomes.

Q47. Why are lysosomes also known as "scavengers of the cells"?

Answer:

Lysosomes are called "scavengers of the cells" as they are waste disposal system of the cell which is due to the presence of digestive enzymes and breaks down all organic material. Lysosomes keeps the cell clean by digesting foreign material like bacteria, food particles and damaged cell organelles.

Q48. Which cell organelle controls most of the activities of the cell?

Answer:

Nucleus controls various activities of the cell like cellular metabolism, reproduction etc. due to the presence of DNA (deoxyribonucleic acid), which also helps in the synthesis of RNA, proteins and enzymes for various cellular activities.

Q49. Which kind of plastid is more common in?

- (a) roots of the plant
- (b) leaves of the plant
- (c) flowers and fruits.

Answer:



- (a) Leucoplasts are present in non-photosynthetic organs like roots of the plant.
- (b) Chloroplasts are present in green photosynthetic parts like leaves of the plant.
- (c) Chromoplasts are present in colorful like flowers and fruits of the plant.

Q50. Why do plant cells possess large sized vacuole?

Answer:

In plant cells, a large central vacuole is present and it does not store food material and waste products, but it contains cell sap which provides rigidity, support and water balance of the cell.

Q51. How are chromatin, chromatid and chromosomes related to each other?

Answer:

Chromatin is a diffuse network of fine filaments in nucleus. During cell division, chromatin material get condensed into rod-like structures called chromosomes. Chromosome has centromere with two arms chromatids.

Q52. 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 than the surrounding medium.

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

Answer:

(a) If cell have higher water concentration than the surrounding medium, loses water due to exosmosis. So, the cell shrinks.

(b) If a cell has low water concentration than the surrounding medium, gains water due to endosmosis and the cell swells.

(c) A cell with equal water concentration to surrounding medium is in original state due to movement of water in or out of the cell.

Long Answer Type Questions



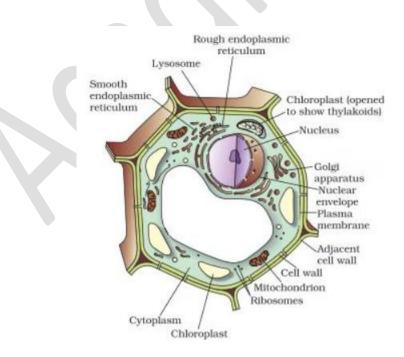
- Q53. Draw a plant cell and label the parts which
- (a) determines the function and development of the cell
- (b) packages materials coming from the endoplasmic reticulum

(c) provides resistance to microbes to withstand hypotonic external media without bursting

- (d) is site for many biochemical reactions necessary to sustain life.
- (e) is a fluid contained inside the nucleus.

Answer:

- (a) Nucleus: determines the function and development of the cell
- (b) Golgi apparatus: packages materials from the endoplasmic reticulum
- (c) Cell wall: provides resistance to microbes to bear hypotonic external media without bursting
- (d) Cytoplasm: is place for many biochemical reactions necessary to sustain life
- (e) Nucleoplasm: is a fluid contained inside the nucleus.





Q54. Illustrate only a plant cell as seen under electron microscope. How is it different from animal cell?

Answer:

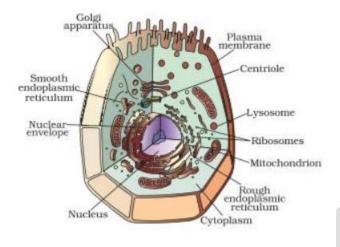
Differences between a plant cell and an animal cell are:

S/No.	Plant cell	Animal cell
1.	Cell wall is present.	Cell wall is absent.
2.	Central vacuole is present	Many small vacuoles are present
3.	Nucleus is peripheral in position.	Nucleus is centrally placed.
4.	Golgi apparatus is present in the form units called dictyosomes	Single Golgi apparatus is present near the nuclear envelope.
5.	Centrioles are absent	Centrioles are present
6.	Plastids are present	Plastids are absent.
7.	Mitochondria are less in number	Mitochondria are more in number.
8.	Lysosomes are rarely present	Typical lysosomes are present
9.	Food material is starch	Food material is glycogen

Q55. Draw a neat labelled diagram of an animal cell.

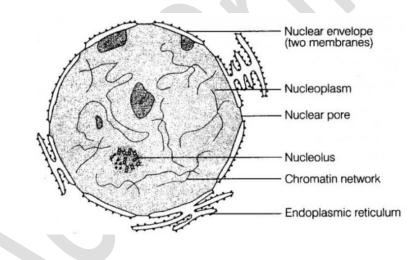
Answer:





Q56. Draw a well labelled diagram of a eukaryotic nucleus. How is it different from nucleoid?

Answer:



Difference between nucleus and nucleoid are:

S/No	Nucleus	Nucleoid
1.	It is large in size	It is small in size.
2.	It has double membrane	It has any membrane
3.	It contains nucleolus.	It does not contain nucleolus
4.	It contains DNA associated with histone proteins	It contains naked DNA i.e., without histone proteins
5.	It is present in eukaryotic cells	It is present in prokaryotic

		cells
6.	Plastids are present.	Plastids are absent

Q57. Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis?

Answer:

Differences between rough endoplasmic reticulum (RER) and smooth endoplasmic reticulum (SER) are as follows:

S/No.	RER	SER
1.	RER has ribosomes fixed to its surface	SER does not have ribosomes fixed to its surface
2.	RER helps in protein synthesis.	SER helps in lipids and fats synthesis.

Membrane biogenesis is formation of plasma membrane due to joint activity of some cell organelles.

The proteins and lipids used for building the cell membrane, are manufactured by rough endoplasmic reticulum (RER) and smooth endoplasmic reticulum (SER). The lipid molecules for cell membrane are prepared in membrane of smooth ER. The protein molecules of cell membrane are prepared in membrane of rough ER. In the process of glycosylation, sugars oligosaccharides, are added to molecules of proteins and lipids in Golgi apparatus. So, the formation of plasma membrane called membrane biogenesis consist of following organelles, forming endomembrane system:

Rough ER \rightarrow Smooth ER \rightarrow Golgi apparatus \rightarrow Secretory vesicle \rightarrow Plasma membrane.

Q58. In brief state what happens when

(a) dry apricots are left for some time 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) rheo leaves are boiled in water first and then a drop of sugar syrup is put on it?



(e) Golgi apparatus is removed from the cell?

Answer:

(a) When dry apricots are dipped in pure water, they swell due to endosmosis and in sugar solution, shrink due to exosmosis.

(b) When a red blood cell is dipped in concentrated saline solution, it loses water due to exosmosis and shrink.

(c) If plasma membrane breaks the protoplasmic materials like cells organelles come out of the cell and the cell dies. Plasma membrane is a semi - permeable membrane which transport substances in and out of cell.

(d) Cells of the leaves are killed on boiling, so there is no plasmolysis and effect of sugar syrup over the leaves.

(e) When Golgi apparatus is removed from the cell, there is no modification, sorting and packaging of materials from ER synthesized in the Golgi apparatus along with synthesis of complex sugars, formation of lysosomes, membrane biogenesis etc. will also not occur, causing non-functioning and death of the cell.

Q59. Draw a neat diagram of plant cell and label any three parts which differentiate it from animal cell.

Answer:

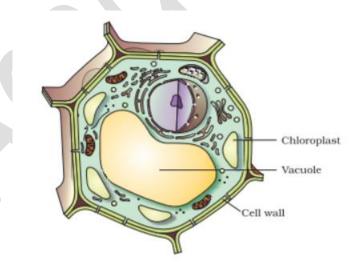


Diagram of a Plant cell