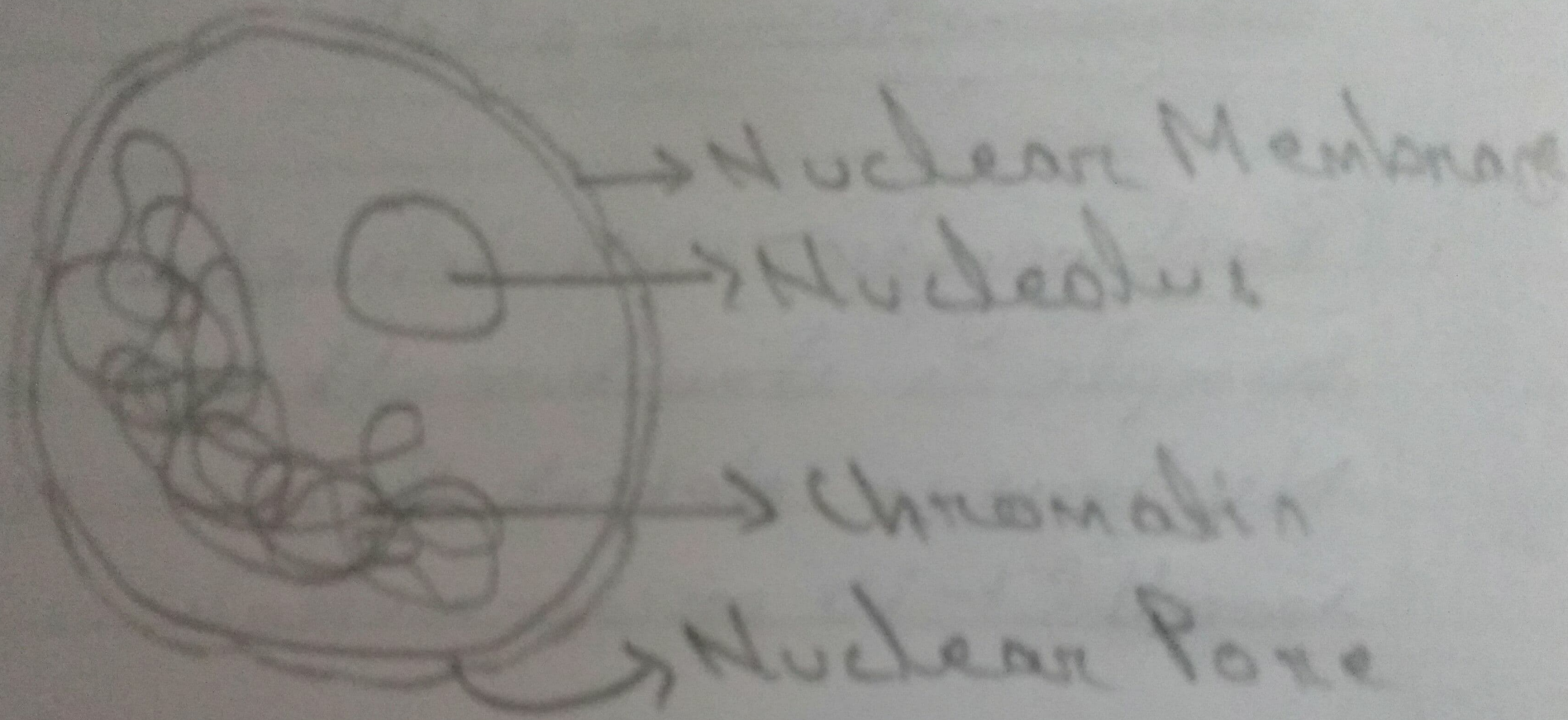
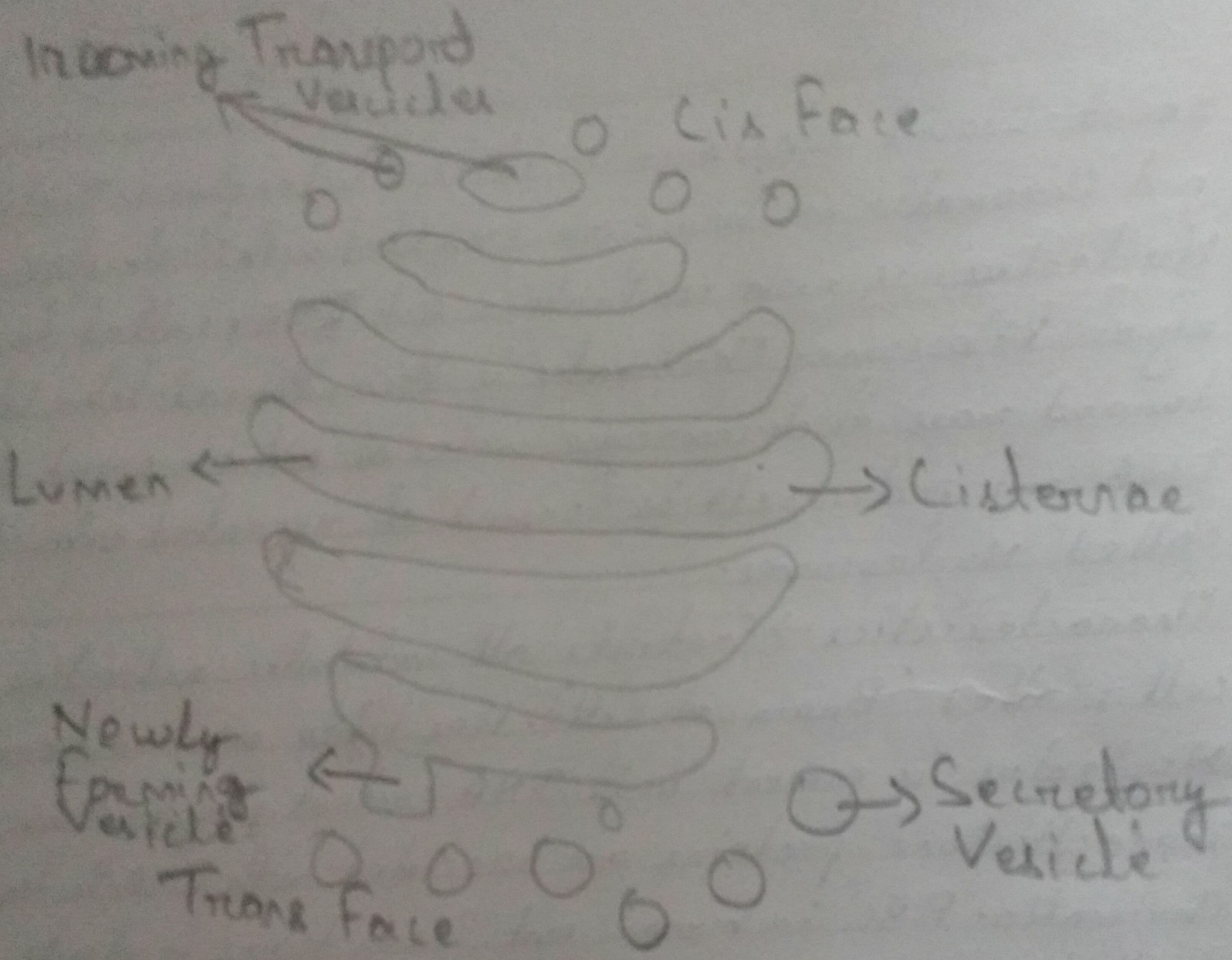
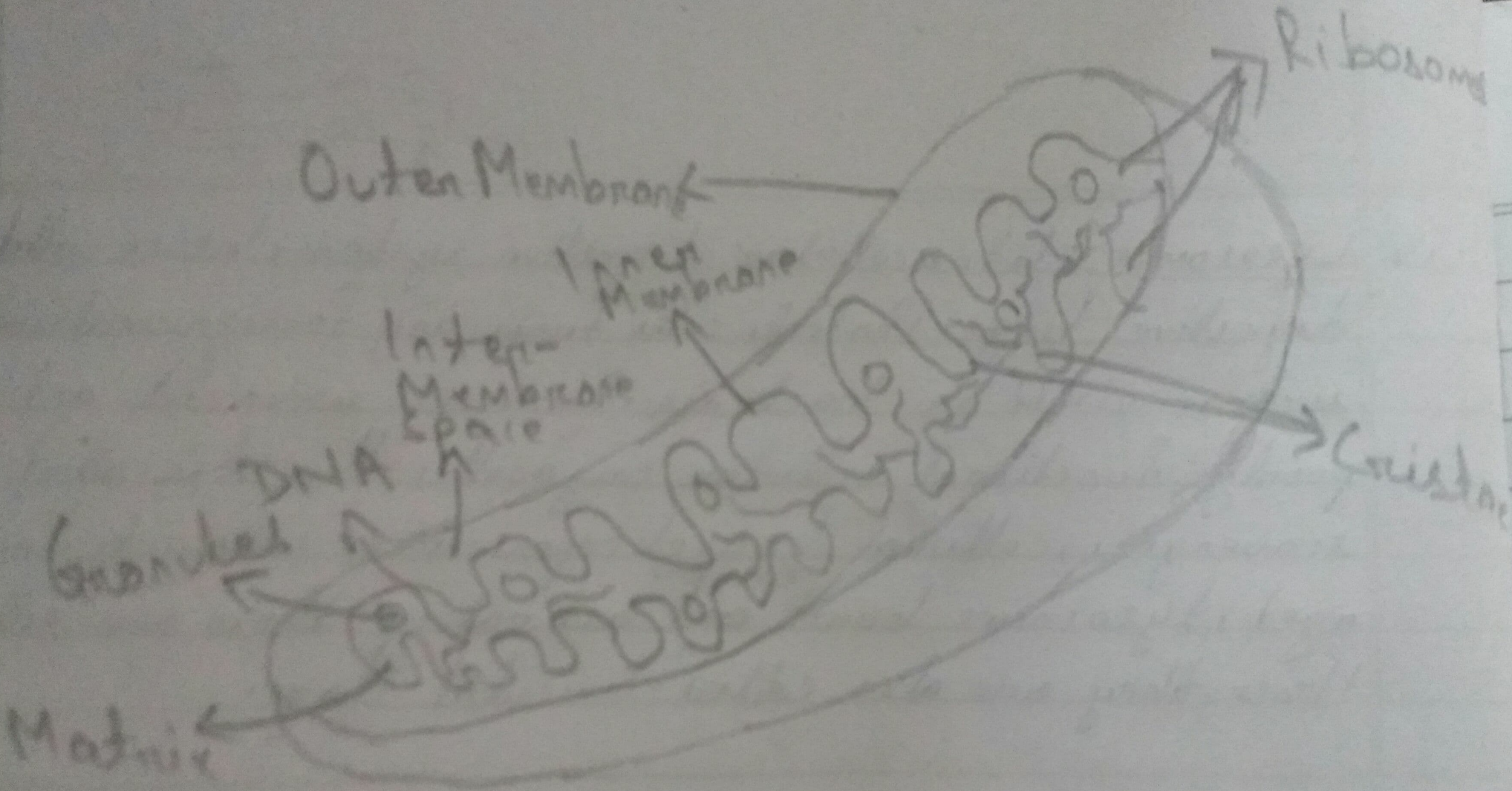


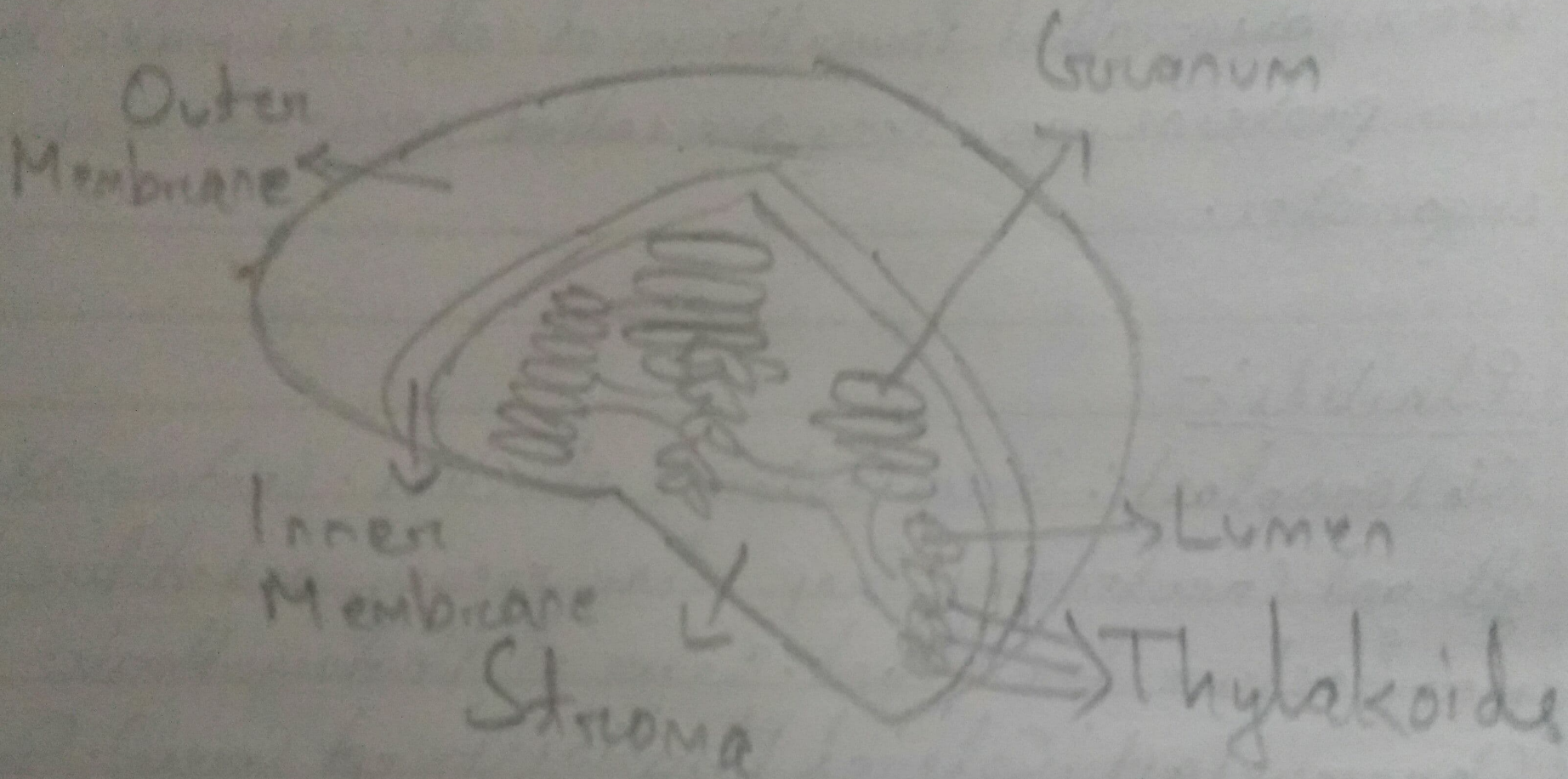
NUCLEUS



GOLGI APPARATUS



MITOCHONDRIA



CHLOROPLAST

Q/ANS

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

Ans

	PLANT CELLS	ANIMAL CELLS
i	Have Cell Wall.	Don't have Cell Wall.
ii	Contain Chloroplast.	Don't contain Chloroplast.
iii	Don't have Centriole.	Have Centriole.
iv	Vacuole is large and present in center of cell.	Vacuole is small.
v	Nucleus is present in the side of a plant cell.	Nucleus is present in the center of Animal Cell.

2 How is a Prokaryotic cell different from a Eukaryotic Cell?

Ans Prokaryotic cell is generally smaller in size (1-10 μm), nuclear region is poorly defined, the cell organelles aren't membrane-bound and has a single chromosome. Eukaryotic cell is generally larger in size (5-100 μm), nuclear region is well defined with nuclear membrane. Membrane-bound cell organelles are present and has more than one chromosome.

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

Ans If Plasma Membrane ruptures or breaks down, then molecules of some substances will freely move in and out.

4 What would happen to the life of a cell if there was no Golgi Apparatus?

Ans Golgi Apparatus has the function of storage, modification and packaging of the products in vesicles. If there were no Golgi bodies, packaging and dispatching of materials synthesized by the cell will be stocked.

5 Which Organelle is known as the powerhouse of the cell? Why?

Ans Mitochondria is known as powerhouse of the cell because it releases the energy required for different activities of life.

6 Where do the lipids and proteins constituting the cell membrane get synthesized?

Ans Lipids and Proteins are synthesized in Endoplasmic Reticulum.

7 How does Amoeba obtain its food?

Ans Amoeba takes its food by cell membrane which forms the food vacuole.

8 What is Osmosis?

Ans Osmosis is the process of movement of water molecule from a region of higher water concentration through a semi-permeable membrane to a region of lower water concentration.

9 i ~~Explain why water gathers in the hollowed portion of B and carry out the following osmosis experiment~~ ≥ C:

Ans Water gathers in B and C because in both the situations there is difference in the concentration of water in the trough and water in the cup of potato. Hence Osmosis takes place as the potato cells act as a Semi-Permeable Membrane.

ii Why is Potato A necessary for this experiment?

Ans Potato A is necessary for this experiment for comparison, it acts as a control.

iii Explain why water doesn't gather in the hollowed out portions of A and D.

Ans Water doesn't gather in the hollowed out portions of

A and D. As cup of A doesn't have change in the concentration for water to flow. For osmosis to occur the concentration should be higher than the other. In cup D, cells are dead and hence, the semi-permeable membrane doesn't exists for the flow of water and no osmosis takes place.

10 Which type of cell division is required for growth and repair of body and which type is involved in formation of gametes?

Ans Mitosis is the type of cell division that is required for growth and repair of body.