

Homework

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Class : IX - D'

Sub. : Biology

Homework : Exercise Q-1 to 8, Diagrams.

The Fundamental Unit of Life

Date _____

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Exercises

- 1) Make a comparison & write down ways in which plant cells are different from animal cells.

Plant cell

Animal cell

- | | |
|---|--|
| > Plant cells have cell wall | > Animal cells do not have cell wall. |
| > They do not have centrioles | > Centriole is present in them |
| > vacuole is large & present in centre of the cell. | > vacuole is small. |
| > They contain chloroplast | > They don't have chloroplast |
| > Nucleus is present in the side of the plant cell. | > Nucleus is present in the centre of the animal cell. |

- 2) How is a prokaryotic cell different from Eukaryotic cell?

A prokaryotic cell is different from Eukaryotic cell because :-

- > Prokaryotic cell is generally small in size (0.1-10 μm) where as Eukaryotic cell is generally large in size (5-100 μm)

- > Nuclear region is poorly defined in a Prokaryotic cell where Nuclear region is well defined and surrounded by a Nuclear membrane in a Eukaryotic cell.
- > Prokaryotic cell has a single chromosome whereas Eukaryotic cell has more than one chromosome.
- > Membrane-bound cell organelles are present in Eukaryotic cells whereas it is absent in Prokaryotic cells.

Q7) What would happen if the plasma membrane ruptures or breaks down?

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?

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

5) Which organelle is known as the powerhouse of the cell? Why?

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

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

Lipids & proteins are synthesized in Endoplasmic Reticulum [ER]

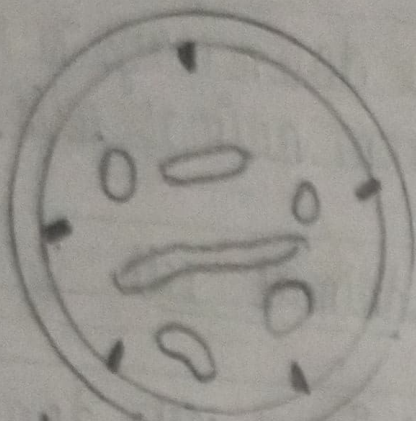
7) How does Amoeba obtain its food?

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

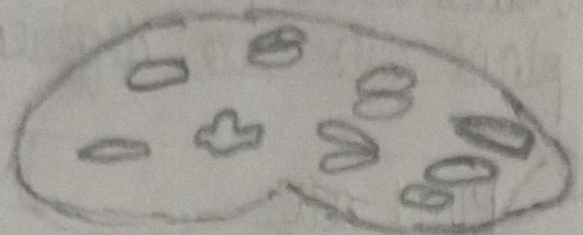
8) What is osmosis?

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.

Plastids



chromoplast



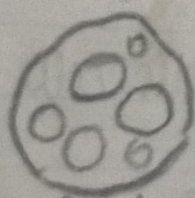
chloroplast



leucoplast



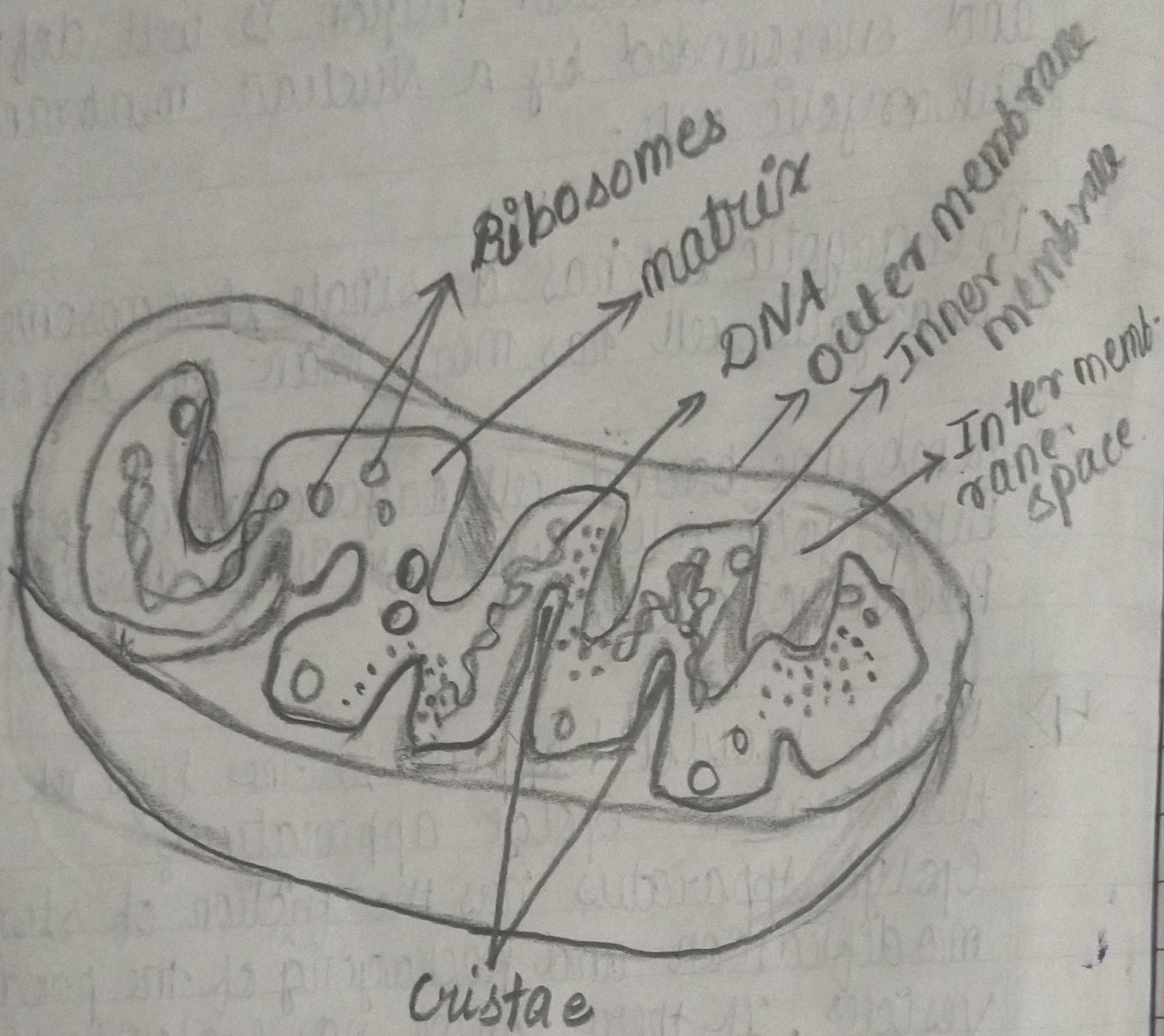
Amyloplast



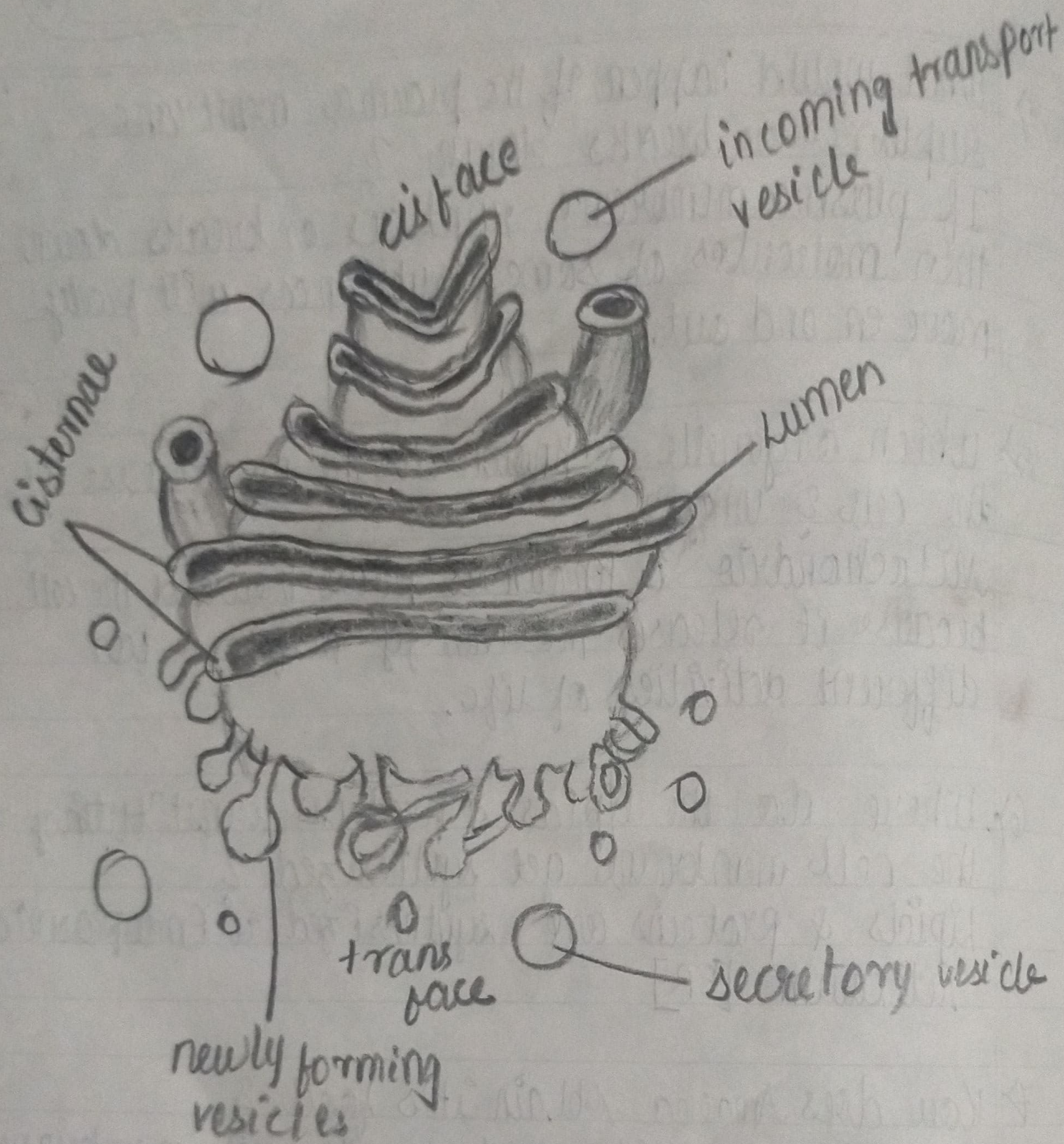
Elaioplast



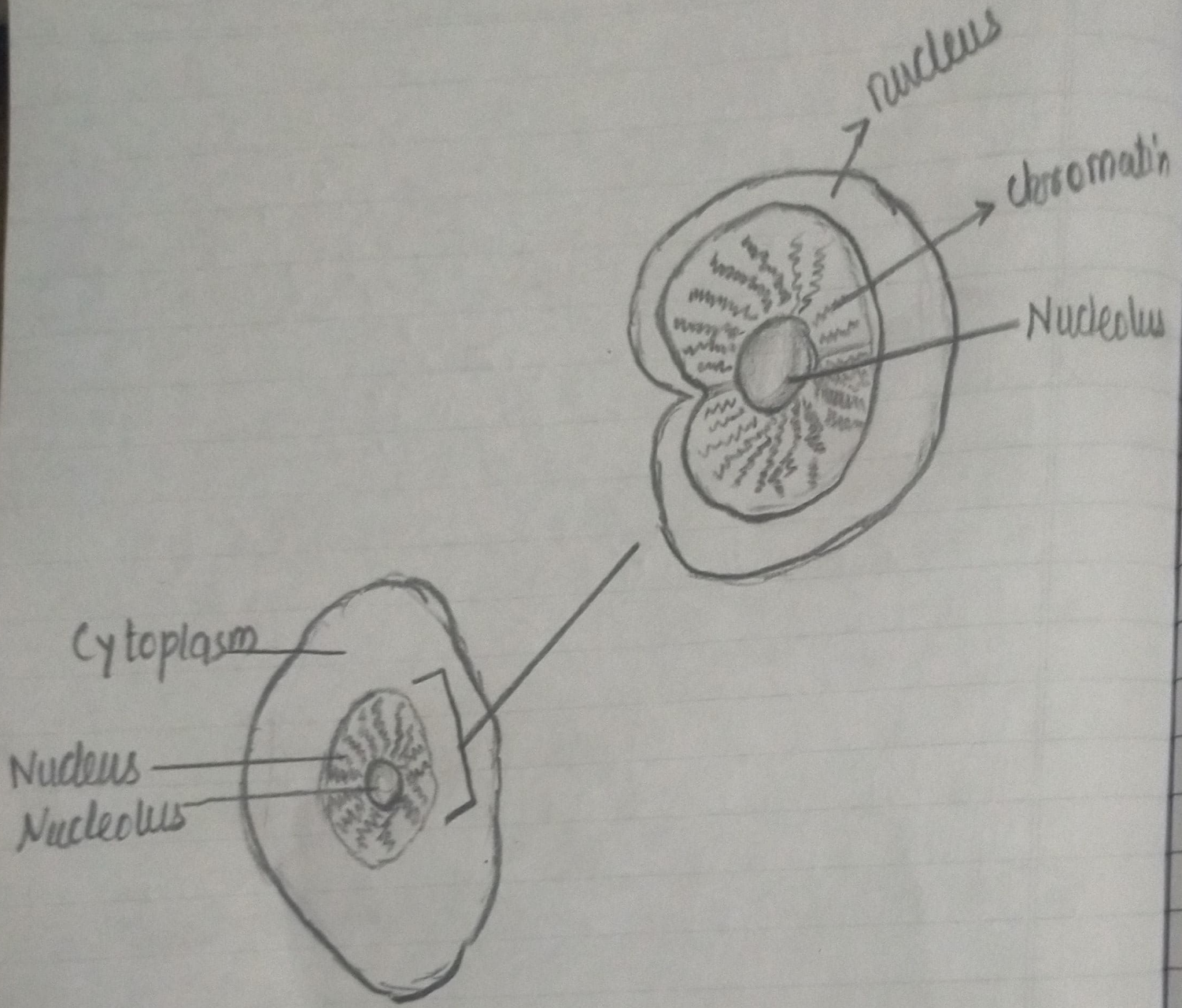
Proteinoplast



Mitochondria



Golgi Bodies



Nucleus Diagram