FUNDAMENTAL UNIT OF LIFE

A. Exercise

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

Answer:

Plant cells	Animal cells
i) Cell wall is present.	Cellwall is absent.
ii) Vacuoles occupy almost 90% volume of the cell.	Vacuoles are smaller in size.
iii) Plastids are present	Plastids are absent.
iv) Nucleus is in peri-phery region of the cell.	Nucleus is in the centre of the cell.
v) Plasmodesta is present.	Plasmodesta is absent.

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

Answer:-

	Prokaryotic cell.	Eukaryotic cell
i)	Smaller in size. (1-10 μm)	Larger in size. (10-100 μm)
ii)	Have an unorganised nucleus.	Have an organised nucleus.
iii)	Heridatory material freely flows in cytoplasm	Heridatory material is covered on the outside by nuclear envelope.
iv)	Cell wall is present	Cell wall is absent (except plant cells)
v)	Nucleolus is absent	Nucleolus is present

4. What would happen to the life of a cell if there was no golgi apparatus?

Answer:- Golgi bodies acts as way station for storing, processing & packaging of golgi bodies are absent the the cell can't process, store or dispatch its synthesised material.

5. Which organelle is known as Power house of the cell? Why?

Answer:- Mitochondria is known as power house of the cell. It has its own Ribosomes & DNA. So, it can synthesise its own protien & release ATP for the cell to carry out life activities.

6. Where do the lipids & proteins constituting the cell membrane gets synthesised?

Answer:- Lipids & proteins are synthesised in ER (Endoplasmic Reticulum).

7. How does Amoeba obtain its food?

Answer:- Amoeba takes its food by the help of the cell membrane which forms pseudopodia & then forms a food vacuole. This process is called Endocytosis.

8. What is Osmosis ?

Answer: The process of movement of liquid particles from area of high concentration ~~is called Osmosis~~ through a semi-permeable membrane is called Osmosis.

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2. Draw a neat & well labelled diagram of all the organelles given in the book.

i) Nucleus
ii) Mitochondria
iii) Chloroplast
iv) Golgi Body (Golgi Apparatus)

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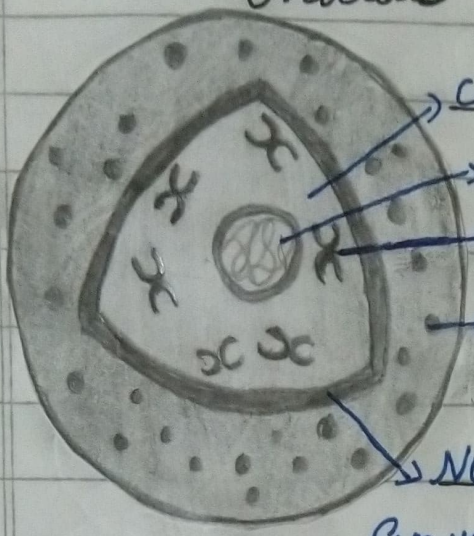
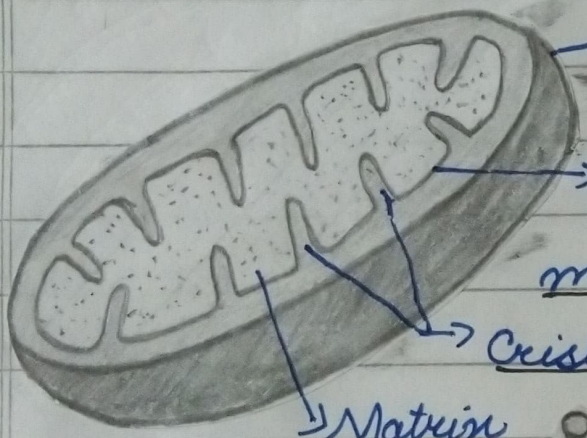
Nucleus



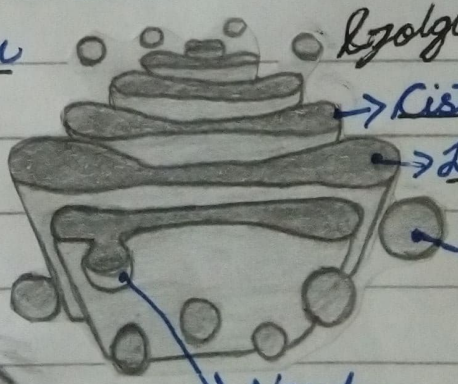
- Chromatin
- Nucleolus
- Chromosome
- Nuclear Pores
- Nuclear Envelope

Mitochondria



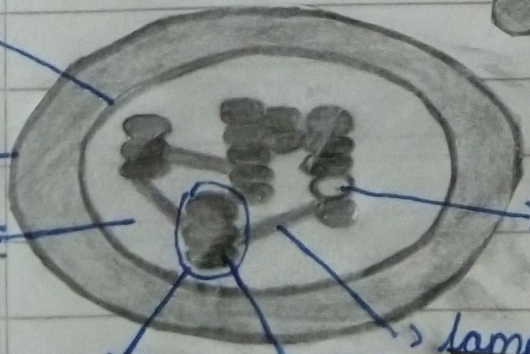
- Outer membrane
- Inner membrane
- Cristae
- Matrix

Golgi Body



- Cisternae
- Lumen
- Secretory vesicles
- Newly forming vesicles

Chloroplast



- Inner membrane
- Outer membrane
- Stroma
- Lumen
- Lamellae
- Granum
- Thylakoid