Ques from Exercise

1. Make a comparision ~~in which~~ and write down ways in which plant cells are different from animals cells.

Ans⇒

Plant Cells		Animals Cells
present	Cell Wall	Absent
present	Chloroplast	Absent
Absent	Lysosome	Present
Present	Vacuole	Absent (very tiny if present)
Absent	Centrosome	Present
Pushed towards periphery	Nucleus	Centre.
Rectangular	Shape	Circular

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

	Prokaryotic Cell	Eukaryotic Cell
Nucleus	Absent	well defined Nucleus is present
Mesosome	Present	Absent
Plasmid	~~Absent~~ Present	Absent
Double & Single membrane bound cell organelles	Absent	Present
Ribosomes	70s type	80s type
	Eg: Bacteria	Eg: Protist, Plants, Animals, Fungi

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

If the plasma membrane ruptures or breaks down the cell will not be able to exchange material from its surrounding by diffusion or osmosis because it acts as a mechanical barrier. Thereafter, the protoplasmic material will be disappeared as it will not able to bear the external environment and hence, the cell will die.

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

If there will be no Golgi Apparatus, then there would be no lysosomes in a cell. Subsequently, the cell would not be able to digest or break down the materials left over from protein creation. Moreover, if Golgi body also makes vacuoles, without Golgi body, the vacuoles will also not be produced & the unwanted material will not be throw out of the cell; Endocytosis & Exocytosis will be affected. Also, Golgi Apparatus ships proteins, lipids and carbohydrates for the growth of plasma membrane, without it, the plasma membrane will not function properly. Thereafter hence, the cell

5. Which organelle is known as the powerhouse of the cell? why?

Mitochondria is known as the powerhouse of the cell. The energy required for various chemical activities needed for life is released by mitochondria in the form of ATP(Adenosine triphosphate) molecules. ATP is known as the energy currency of the cell. That is why, Mitochondria is known as the powerhouse of the cell.

6. Where do the lipids & proteins constituting the cell membrane get synthesized?
Lipids are synthesized at Smooth Endoplasmic Reticulum (SER).
Proteins are synthesized at Raegh Endoplasmic Reticulum (RER).

7. How does an Amoeba obtain its food?
Amoeba takes in food using temporary finger like projections called 'pseudopodia' of the cell surface, will fuse over the food particle forming a food vacuole. The remaining undigested material is moved to the surface of the cell and ~~throw~~ thrown out.
The complete phagocytosis process include intake, digestion, absorption, assimilation & egestion process.

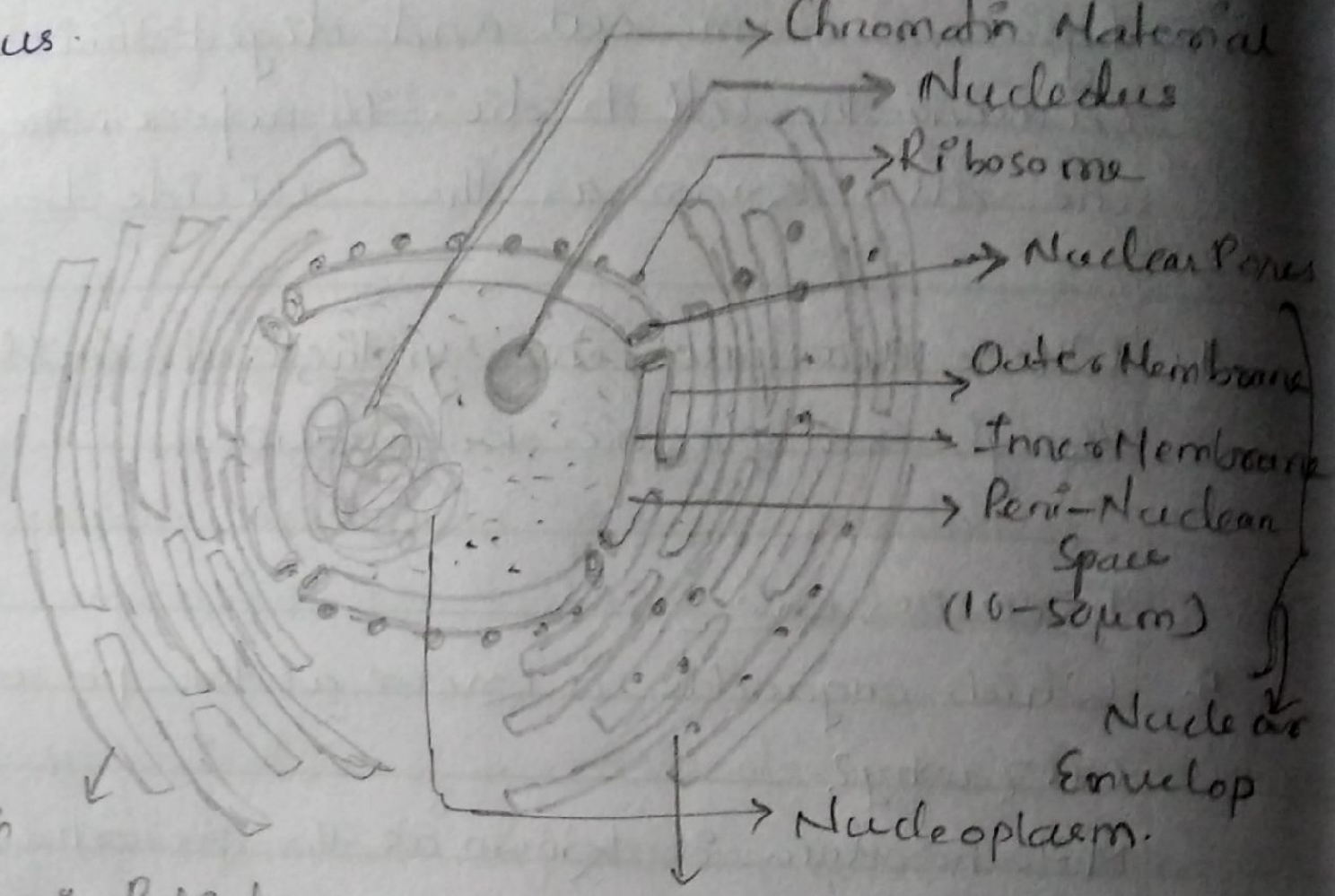
8. What is Osmosis?
Osmosis is the passage of water from ~~one~~ a region of high water concentration through

a selectively permeable membrane to a region of low water concentration till equilibrium is reached.

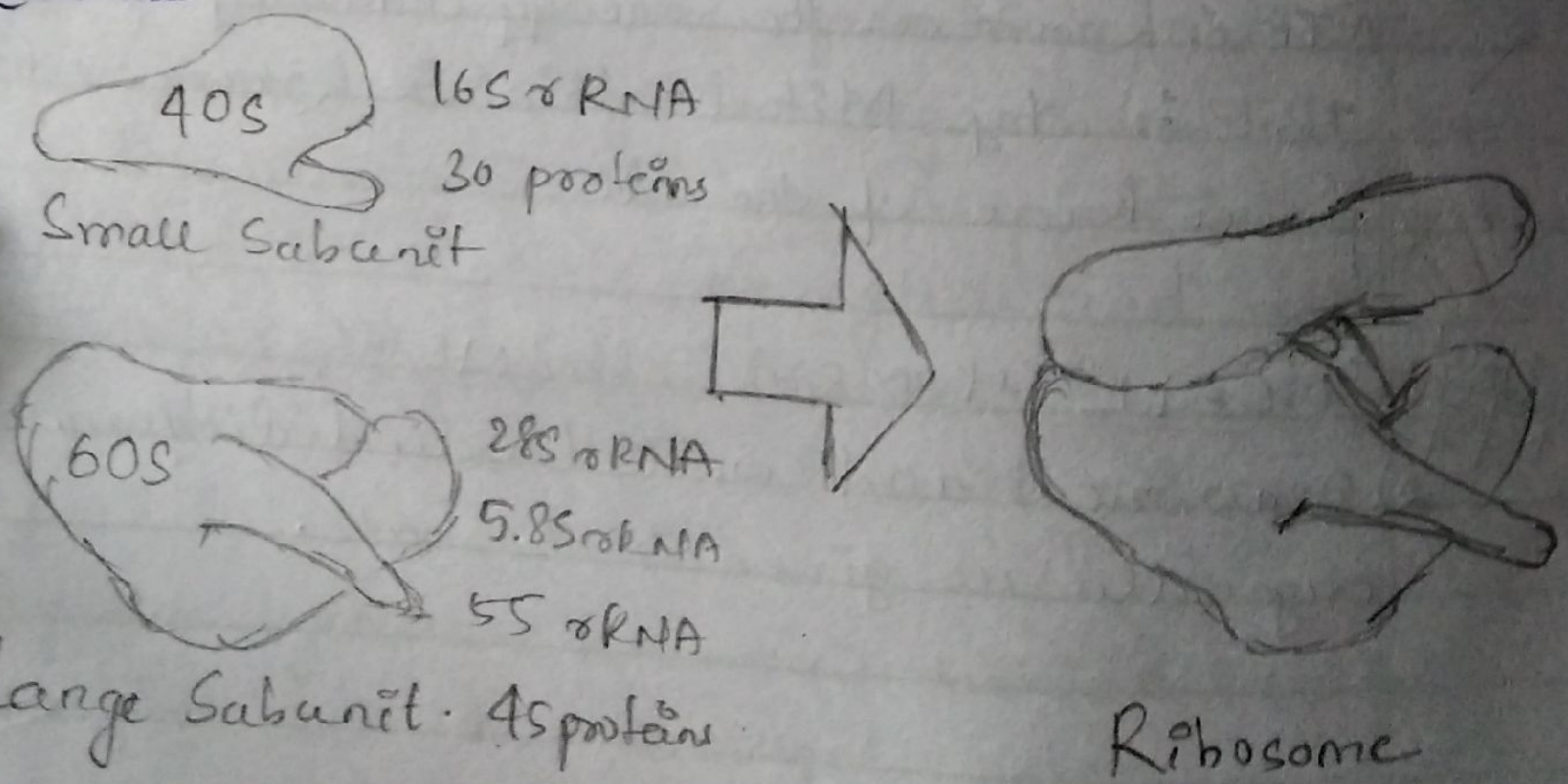
CELL HOME ASSIGNMENT

Draw neat and well labelled diagram of all the organelles as given in the book.

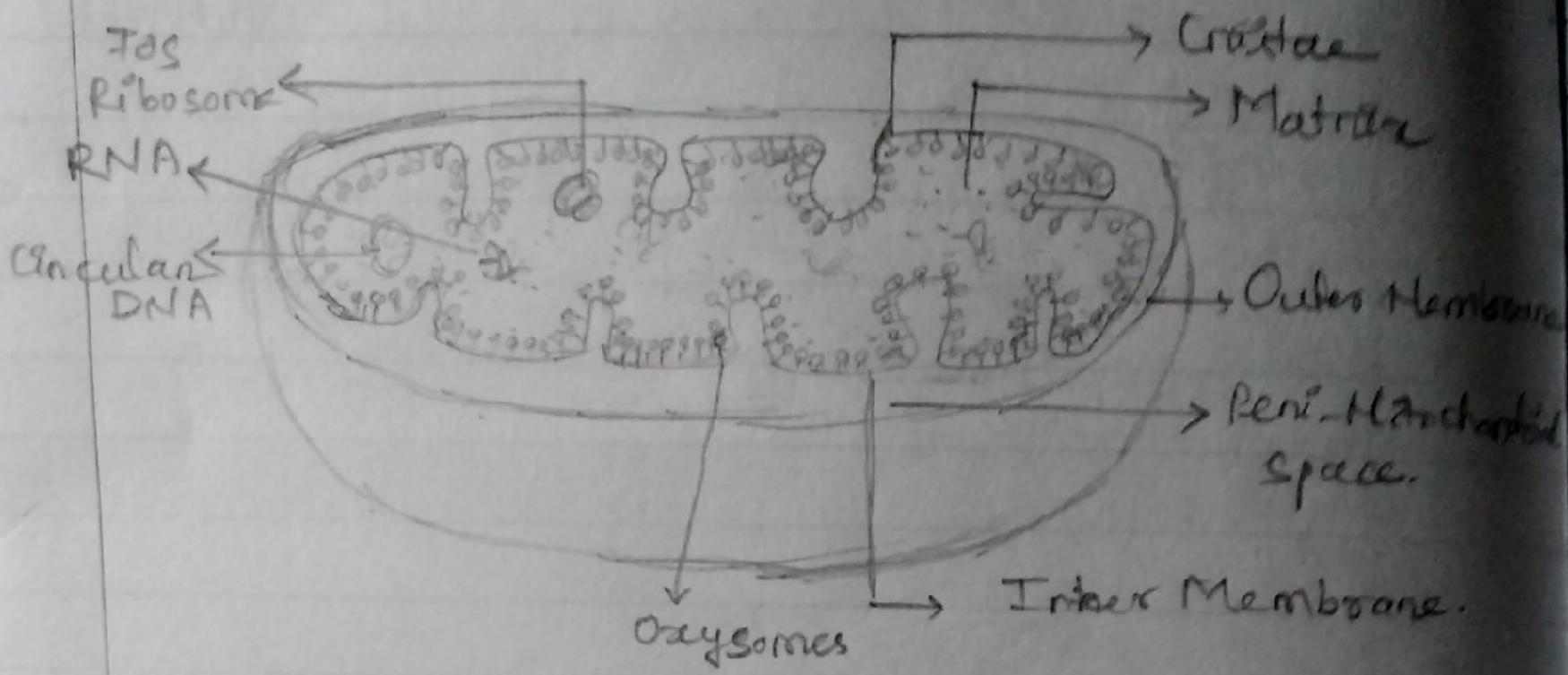
① Nucleus.



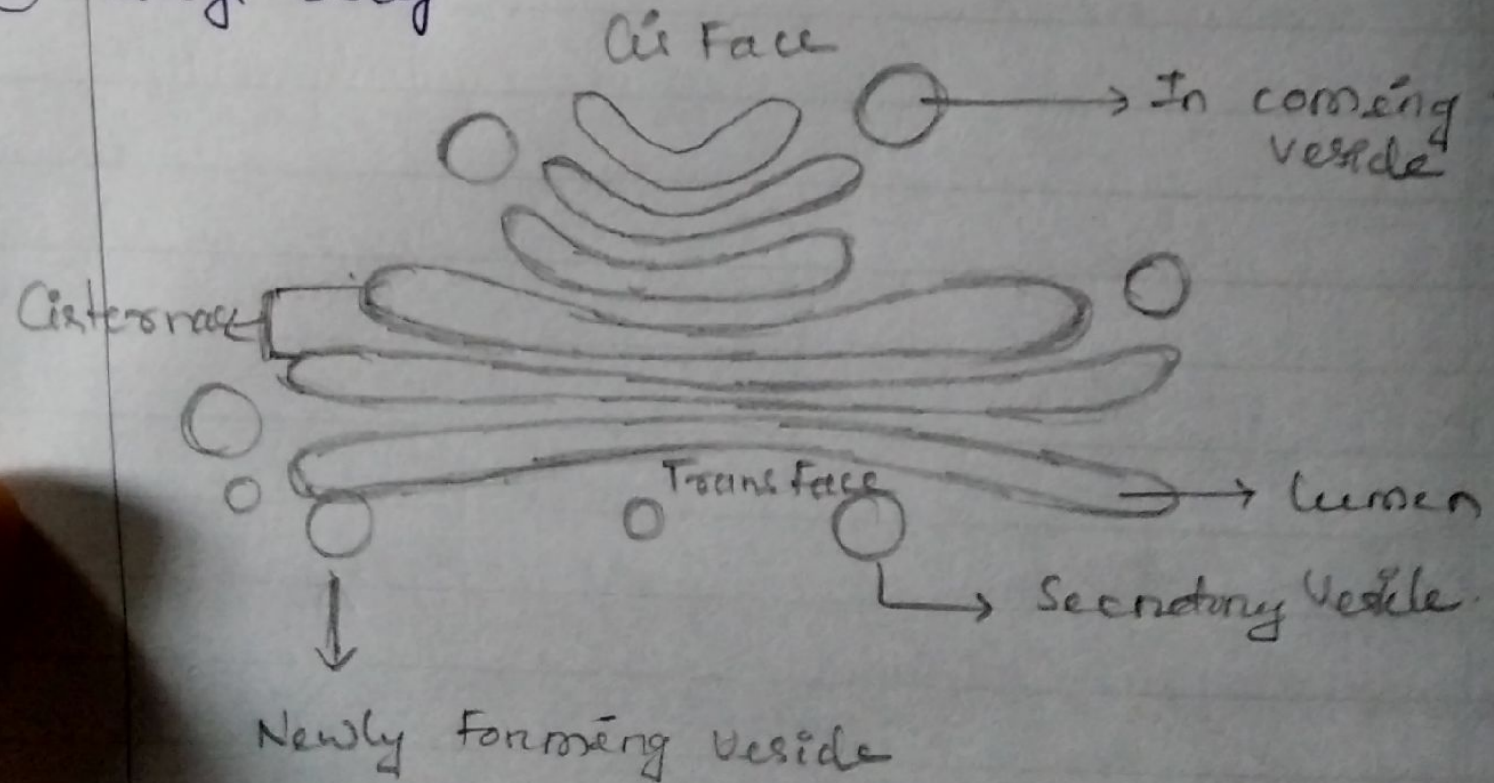
② Ribosome



③ Mitochondria

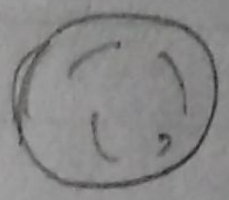


④ Golgi Body



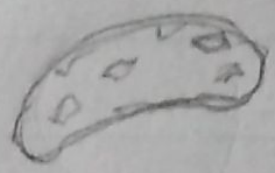
(5) Plastids

Etioplast



Proplastid

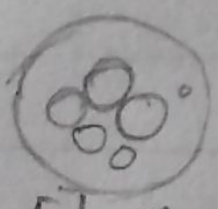
Chromoplast



Chloroplast

Leucoplast

Amyloplast



Elaioplast

Proteinoplast

Chloroplast