

NCERT solution of questions from
Inside Text [Lesson-5]

Page No- 57/ Q No- 1 : The cell was discovered by Robert Hook in the year - 1665 while observing the thin slice of the cork by a microscope designed by himself.

Page No- 59/ Q No- 2 : Cell is said to be the structural and functional unit of life. In the year (1838-39) Schleiden & Schwann proposed cell theory which states that the body of all plants & Animals are composed of a basic unit of life, the cell. Hence it is called structural unit of life. And all the functions carried out by an organism can be found to run at cellular level also. Hence, the cells are declared as functional unit of life.

Page No- 61/ Q No- 1 : CO_2 is a gas and its bidirectional ~~transfer~~ transport across the plasma membrane in a cell takes place by the process of diffusion. But water is a liquid and universal solvent. It moves across the plasma membrane by Exo & Endosmosis. So osmosis is the process by which water transport takes place.

Page No- 61/ Q No- 2 : Plasma membrane is said to be selectively permeable membrane because it allows only some selected

substances or molecules to pass through it. But some other substances or molecules are restricted to pass through it. Hence plasma membrane is said as-

'Selectively Permeable membrane'

Page No-65/BNo-1 : The two organelles that contain its own DNA are the - Mitochondria and the Chloroplast. Virtually DNA itself is considered as the genetic material.

Page No-65/BNo-2 : If the organisation of the cell is destroyed due to any physical or chemical influence, the cell won't perform its assigned function. The lysosome of the cell would digest the components of the cell.

Page No-65/BNo-3 : Lysosomes are known as the suicide bag of the cell as it contains strong hydrolytic enzymes which can digest the cellular debris, worn out cell organelles and even the whole cell if it is badly injured. Hence named as 'Suicide bag'.

Page No-65/BNo-4 : Inside the cell lot of granular structures freely suspended in the cytoplasm or adhered to the endoplasmic reticulum can be seen which are known as 'ribosomes'. This is the organelle responsible to synthesize protein inside the cell.