

Biology - FSC Part 1 Biology English Medium Chapter 4 Preparation

Q1. How smooth endoplasmic reticulum is different from rough endoplasmic reticulum?

Ans 1: SER: SER has Ribosomes on its surface and its surface is rough. It is involved in protein synthesis.

Ans 2: RER: RER has no ribosomes its surface is smooth and it is involved in metabolism of lipids.

Q2. Define cell. Who discovered cell?

Ans 1: The cell can be defined as the structural and functional unit of life. It is the smallest unit that can carry out all activities of life. Robert Hooke discovered the cell for the first time.

Q3. What are intermediate filaments?

Ans 1: They have diameters in between those of microtubules and microfilaments. They play an important role in maintenance of cell shape.

Q4. Give a chemical composition of plasma membrane.

Ans 1: Cell membrane is chemically composed of proteins (60%-80%) and lipids. A small quantity of carbohydrates is also present.

Q5. Give three functions of smooth endoplasmic reticulum.

Ans 1: 1. It helps in metabolism of a number of different types of molecules, particularly lipids.
2. It also helps to detoxify harmful drugs.
3. It also plays an important role in transport of material from one part of the cell to another.

Q6. What is plasma membrane? Give its chemical composition.

Ans 1: Plasma membrane is the outermost boundary of the cell. However, in most plant cells, it is covered by a cell wall. Cell membrane is chemically composed of lipids and proteins; 60-80% are proteins, while 20-40% are lipids.

Q7. What is the function of parenchyma and xylem cells?

Ans 1: Function of parenchyma is to store food and function of xylem cells is to transport water and minerals to the plant body.

Q8. Give chemical composition of primary and secondary cell wall.

Ans 1: Primary cell wall basically composed of cellulose and some deposition of lignin and hemicellulose. Secondary wall is composed of inorganic salts, silica, waxes, cutin lignin etc.

Q9. Give salient features of cell theory.

Ans 1: 1. Cell is structural and functional unit of living organism.
2. All organisms are composed of cells and cell products, some of them are unicellular and some are multicellular.
3. New cells arise from pre-existing cells.

Q10. Describe two regions of nucleus.

Ans 1: Nucleolus is composed of two regions:
1. The peripheral granular area composed of precursors of ribosomal subunits and central fibrillar region consisting of a large molecular weight RNA and rDNA.
