

## Biology - FSC Part 1 Biology English Medium Chapter 4 Preparation

Q1. What is "Omnis Cella a Cellula" who proposed it?

**Ans 1:** It is a German term which means "New cells are formed from pre-existing living cells" Rudolf Virchow proposed it.

Q2. What is meant by resolution of microscope?

**Ans 1:** The minimum distance at which two objects can be seen as separate objects is called resolution.

Q3. What are intermediate filaments?

**Ans 1:** They have diameters in b/w those of microtubules and microfilaments, They play an important role in maintenance of cell shape.

Q4. What are centromeres and their role?

**Ans 1:** Centromere is the place on the chromosome where the spindle fibres are attached during cell division.

Q5. Give important functions of cytoplasm.

**Ans 1:**

1. It is center of great metabolic activities like protein synthesis and glycolysis.
2. It acts as a strong house of chemicals.
3. Several cell organelles are present in the cytoplasm.

Q6. 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.

Q7. Give the name of Robert Hooke's publication on cell discovery.

**Ans 1:** Micrographia.

Q8. Give the significance of vacuoles in plant cells.

**Ans 1:** Significance of vacuoles in plant cells is that they provide turgor pressure which maintains cell shape and gives support to plant parts.

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Q9. Define fluid mosaic model of cell membrane.

**Ans 1:** The modern technology has revealed that lipid bilayer is not sandwiched between two proteins layers. Instead proteins are embedded in the liquid bilayer in a mosaic manner. According to this model, cell membrane also contains charged pores through which movement of materials takes place both by active and passive transport.

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Q10. What is nucleolus? Give its function.

**Ans 1:** It is a darkly stained body within the nucleus and is without any membranous boundary to separate it from the rest of the nuclear material.  
The ribosomal RNA is synthesized and stored in the n.

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