

ST. MICHAEL'S SCHOOL, MURI

SYLLABUS CUM HOME ASSIGNMENT 2020-21 FOR CLASS - IX

Sub - BIOLOGY

SYLLABUS DETAILS:-

The Fundamental Unit of Life:-

Cell - Cell is the basic fundamental structural and functional unit of Living Organism.

Discovery of Cell :-

Robert Hooke (1665), examined a thin slice of cork under the primitive Microscope. He observed that cork consist of small box like structure resembling Honey Comb. He called these boxes cells. Cell is a Latin word for ' A Little Room '.

Basic Characteristics of Cell :-

- i) They have the ability to replicate independently.
- ii) They contain heredity information.
- iii) They can perform all the Life sustaining activities on their own.
- iv) They show similar Chemical composition and metabolic activities.

Cell Theory:-

Schleiden and Schwann in 1839 presented Cell Theory. The main points of cell theory are

- i) All plants and animals are composed of Cells.
- ii) Cells are basic unit of Life.
- iii) Cells are made up of preexisting Cell.

Shape of Cells:-

Some cells have fixed shape while some cells like WBC and Amoeba keep changing their shape.

Fixed shaped cells may be of various type like

- Elliptical - Fat Cell
- Spindle Shaped - Smooth Muscle Cell
- Elongated - Nerve Cell
- Discoid - RBC

Size of Cells:-

The size of cell varies significantly from the smallest cell of Mycoplasma to very large egg cells of the Ostrich. Longest cell in the human body are the Nerve Cell and smallest cell are RBC.

Types of Organism on the basis of number of Cells:-

- i) Unicellular Organisms - Organisms having single cell are called Unicellular organisms.
eg- Amoeba, Paramecium etc.
- ii) Multicellular Organism - Organism having many cells are called multicellular organism.
eg- Fungi, Humans, Plants etc.

HOME ASSIGNMENT :-

- 1. What is Cell ?**
- 2. Who discovered Free Living Cells ?**
- 3. Write basic characteristics of Cells ?**
- 4. Define Unicellular and Multicellular organism with example .**
- 5. Name the two cells which can change their shape.**
- 6. Name the longest and smallest cell in human body.**
- 7. Explain discovery of Cell.**
- 8. Name some fixed shape of cell with example.**
- 9. Write the main points of Cell Theory.**
- 10. Name the cells which have fixed shape.**