

BRAIN INTERNATIONAL SCHOOL

Biology Assignment

Class: IX

July'24

Chapter-5: The Fundamental Unit Of Life .

1. Write two statements to show that lysosomes are aptly called the suicide bags of the cell ?
2. Classify the organisms on the basis of the number of cells. Give two examples each.
3. Describe the structure of mitochondria with special emphasis on its membrane covering.
What are the functions of these membranes?
4. Give differences between mitosis and meiosis .
5. Read the case and answer the questions that follow :

The nucleus contains chromosomes which are visible as rod shaped structures only when the cell is about to divide .Chromosomes contain information for inheritance of features from parent to next generation in the form of DNA molecules. Chromosomes are composed of DNA and protein .DNA molecules contain the information necessary for constructing and organizing cells. Functional segments of DNA are called genes. In a cell which is not dividing, this DNA is present as part of chromatin material. Chromatin material is visible as entangled mass of thread like structures .Whenever the cell is about to divide ,the chromatin material gets organized into chromosomes. In low organisms like prokaryotes, the nuclear region is undefined call nucleoid .

- (i) What is the role of DNA ? What are functional segments of DNA. In non -dividing cell, how does DNA can be seen?
- (ii) What role is played by the nucleus ? Justify.
- (iii) What are visible as rod -shaped structures when the cell is about to divide? What are they composed of ?