

Roll No. ....

Total Pages : 2

BT-1/D-23

41043

## BIOLOGY

Paper-BS-141A

Time Allowed : 3 Hours]

[Maximum Marks : 75

**Note** : Attempt five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

### UNIT-I

1. (a) Enlist the characteristics features of living organism. 5
- (b) Draw a well labelled structure of Mitochondria. 5
- (c) Differentiate between Plant cell and Animal cell. 5
2. Why classification of Living organisms is important. Classify living organism based upon mode of Ammonia secretion and Energy and Carbon utilization. 15

### UNIT-II

3. Define the Carbohydrates and Protein. Give two example of each. Discuss in detail functions of proteins and carbohydrates. 15
4. (a) Enlist the General characteristics of enzymes. 7

- (b) Discuss in brief about different parameters that affect enzyme activity. 8

### UNIT-III

5. Differentiate between stages of Mitosis and Meiosis. Also enlist significance of both these process in Cell physiology. 15
6. (a) Write down the Mendel's Law of inheritance. Also appreciate the significance of these laws in understanding of genetics. 10
- (b) Write down a short note on Diabetes type1 and Type 2. 5

### UNIT-IV

7. (a) Why ATP is considered as energy currency of Cell. 5
- (b) Write down the first five reactions of Glycolysis along with names of Enzymes which catalyze these reactions. ~~Write down short note on~~ 10
8. (a) Discuss in detail roles of Biology in agriculture, medicine and forensic science. 10
- (b) Write down a short note on Biosensors and their uses. 5