

Roll No. ....

Total Pages : 02

BT-2/M-23

42040

BIOLOGY

BS-141A

Time : Three 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. Describe the ultrastructure of a typical eukaryotic cell indicating all the cell organelles with the help of a well-labelled diagram. 15
2. Write short notes on the following : 15
  - (i) Differentiate between unicellular and multicellular organisms.
  - (ii) Chloroplast and its functions.

### Unit II

3. Discuss the general characteristics, nomenclature pattern and classification of enzymes in details with the help of suitable examples. 15

4. Write short notes on the following : 15
- (i) Functions and classification of carbohydrates
  - (ii) Effect of temperature on enzyme activity.

### Unit III

5. Differentiate between mitotic and meiotic cell division with the help of well-labelled diagrams and highlight their significance. 15
6. Write short notes on the following : 15
- (i) Genetics of blood group
  - (ii) Fungi as agents of plant and human diseases.

### Unit IV

7. Discuss the various applications of biology in forensic sciences and agriculture with the help of suitable examples. 15
8. Write short notes on the following : 15
- (i) Light and dark reactions of photosynthesis
  - (ii) Sterilization and its significance in microbiology laboratory.