

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.