

Roll No. ....

Total Pages : 2

**BT-2/M-20**

**32040**

**BIOLOGY**

Paper : ES-141A

Time : Three Hours]

[Maximum Marks : 75

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

### **UNIT-I**

1. (a) Differentiate between Prokaryotic and Eukaryotic cell with the help of diagram.  
(b) Write the characteristic features of living organisms. (10,5)
2. (a) Classify the organisms on the basis of energy and carbon utilization.  
(b) Draw the diagram of Nucleus and Endoplasmic reticulum and write their functions. (5,10)

### **UNIT-II**

3. (a) Explain different structures and form of DNA how it differs from RNA.  
(b) Differentiate between primary & secondary proteins. (10,5)
4. Write notes on:
  - (a) Classification of enzymes.
  - (b) Effect of pH and temperature on enzyme activity. (15)

### **UNIT-III**

5. Explain different stages of meiosis and its significance. (15)
6. Explain Mendels Law of inheritance. (15)

### **UNIT-IV**

7. Explain the role of biology in agriculture and medicine. (15)
8. Write notes on :
  - (a) Biosensors.
  - (b) BioMEMS. (15)

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