

Roll No. ....

**Total No. of Pages : 2**

**BT-2/JX**

8260

## Introduction to Biotechnology (w.e.f. 2009-10)

**Paper : BT-101 E**

Time : Three Hours]

[Maximum Marks : 100]

**Note :-** Attempt **FIVE** questions in total, selecting at least **ONE** question from each Unit.

## UNIT-I

1. Discuss the structure and functions of the followings :
  - (a) Nucleus 10
  - (b) Ribosomes. 10
2. (a) Write down the differences between different forms of DNA. 10
- (b) What are enzymes ? How they are classified ? 10

## UNIT-II

3. (a) Discuss the process and significance of mitosis. 10  
(b) Describe the process of transcription in brief. 10
4. (a) Describe the measures for the control of bacterial and fungal contamination. 10  
(b) Discuss the advantages and disadvantages of micro-organisms. 10

### UNIT-III

5. (a) What are plasmids ? Give examples of different types of plasmids alongwith their significance. 10
- (b) What are Restriction Endonucleases ? Explain their significance. 10

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6. What do you mean by Genetically Modified Organisms ? Describe any two methods for the production of transgenic organisms alongwith examples. 20

### UNIT-IV

7. Discuss the role of Biotechnology in Agriculture, Industry and Forensic Science. 20
8. Write notes on the following :
- (i) Nanotechnology 10
  - (ii) Ethical issues relating to biotechnology. 10