

Roll No.

Total Pages : 3

BT-I/D-19

31003

INTRODUCTION TO BIOTECH

Paper-BT-101E

Opt. (ii)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt *five* questions in total, selecting at least *one* question from each unit.

UNIT-I

1. Describe the structure of prokaryotic and eukaryotic cell with the help of a well labelled diagram. Also write the differences. (20)
2. (a) Differentiate between : (2x5)
 - (i) RNA and DNA.
 - (ii) Starch and Glycogen.
 - (iii) Ribose and Deoxyribose sugar.
 - (iv) Animal and Plant Cell.
 - (v) Fat soluble and water soluble vitamins.
- (b) Write important functions of carbohydrates, proteins and vitamins. (10)

31003/1,000/KD/1065

[P.T.O.
18/12

UNIT-II

3. (a) Explain the process of photosynthesis. (10)
- (b) Write a brief note on nitrogen fixation. (10)
4. (a) Write the structure and function of excretory system with the help of a well labelled diagram. (10)
- (b) Describe the significance of microbes for mankind. Also explain the harmful effects of microbes by giving some examples. (10)

UNIT-III

5. (a) Describe different stages of mitosis with the help of labelled diagram. (10)
- (b) State Mendel's Laws of inheritance. (10)
6. (a) What is rDNA Technology? Describe the tools used in recombinant DNA Technology. (10)
- (b) Define the following terms : (2x5)
 - (i) Bioinformatics.
 - (ii) Replication.
 - (iii) Transcription.
 - (iv) Genomics.
 - (v) Mutation.

31003/1,000/KD/1065

2

UNIT-IV

7. Write the applications of biotechnology in the field of agriculture, environment and medicine. (20)
8. Explain the following : (4×5)
- (a) Plasmids.
 - (b) BT Cotton.
 - (c) Vectors.
 - (d) Ethics involved with biotechnology.
 - (e) Restriction Enzymes.
-

<http://www.kuonline.in>
Whatsapp @ 9300930012
Send your old paper & get 10/-
अपने पुराने पेपर्स भेजे और 10 रुपये पायें,
Paytm or Google Pay से