Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(BT) (2011 to 2017) (Sem.–3)

RECOMBINANT BIOTECHNOLOGY

Subject Code : MSBT-205

M.Code : 15020

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write brief note on the following :

(a) DNA ligases

(b) Plasmids

(c) Liposomes

(d) Non-radioactive labelling

(e) Colony hybridization

(f) Genomic DNA libraries

(g) Maxam-Gilbert DNA sequencing

(h) Applications of PCR

(i) Ex-vivo gene therapy

(j) Ribozyme technology

SECTION-B

2. Describe the importance of Genetic engineering. What are various requirements for the construction of recombinant DNA?

3. Explain theory, methodology and applications of DNA fingerprinting.

4. Differentiate between Southern and Northern Blotting.

5. Give methods of preparation of cDNA libraries.

6. Discuss the advantages and limitations of using transgenic animals.

SECTION-C

7. Draw well illustrated diagrams of :

   (a) Phagemids

   (b) Shuttle vectors.

8. Explain theory, methods and applications of DNA sequencing.

9. Discuss the current status of rDNA products in India. Describe briefly the requirements of biosafety measures and regulations for rDNA work.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.