

M.Sc. (Part-II) Semester-III (CBCS) Examination
BIOCHEMISTRY
(Recombinant DNA Technology)
Paper-XII

Time : Three Hours]

[Maximum Marks : 80

Note :— All questions are compulsory and carry equal marks.

1. Describe in brief :
- (a) Plasmid. 5
 - (b) Vectors. 5
 - (c) Cosmid. 6

OR

- (p) RAPD. 5
 - (q) DNA Fingerprinting. 5
 - (r) Insertion of gene. 6
2. (a) Give advantages and disadvantages of cDNA library. 8
- (b) Describe the detection of clone by immunoassay. 8

OR

- (p) Describe application of microinjector. 8
 - (q) Explain about gene machines. 8
3. Describe applications of rDNA technology in agriculture. 16

OR

- Describe applications of rDNA technology in medicine. 16
4. Describe in detail post transcriptional regulation in prokaryotes. 16

OR

- Discuss operon hypothesis. Add a note on regulation of Lactose operon. 16
5. Write in short on the following :
- (a) Gene amplification. 5
 - (b) RNA editing. 5
 - (c) Basic promotor elements in transcriptional regulation. 6

OR

- (p) Regulation of plant gene. 5
- (q) RNA transport from nucleus to cytoplasm and its regulation. 5
- (r) Use of different translation initiation codons. 6

