

No. of Printed Pages : 03

Roll No.

32289

B. Sc. EXAMINATION, 2025

(Fourth Semester)

BIOTECHNOLOGY

Paper–VIII

Recombinant DNA Technology

Time : 3 Hours]

[Maximum Marks : 40

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory.

1. Attempt all the questions : **8**

(a) Isoschizomers

- (b) Enlist the properties of an ideal vector.
- (c) Alkaline Phosphatase and Kinases
- (d) Promoter
- (e) Transformation
- (f) cDNA Library
- (g) Western Blotting
- (h) GMOs.

- 6. What is DNA sequencing ? Explain various types of sequencing methods in detail. 8
- 7. What are molecular markers ? Explain in detail about various types of molecular markers along with applications. 8



Unit I

- 2. Elaborate the key steps involved in gene cloning in detail. 8
- 3. Describe about the properties and applications of any four cloning vectors. 8
- 4. Discuss about different types of restriction enzymes with suitable examples. 8

Unit II

- 5. Write the principle and basic applications of PCR along with its various types. 8