A

(20622)

M.Sc. - II Sem.

(Printed Pages 3)

Roll No. .....

NP-3337

M.Sc. (Biotechnology) Examination, June-2022

RECOMBINANT DNA TECHNOLOGY AND GENETIC ENGINEERING

(H-204)

[M.Sc.(Biotech.)]

Time : Three Hours] *[Maximum Marks : 50*

Note : Attempt **all** the Sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all the **five** questions. Each question carries 2 marks. Very Short answer is required not exceeding 50-75 words.

P.T.O.

1. Define genetic engineering.
2. What is the scope of genetic engineering.
3. Define Primers.
4. Explain modifying enzymes.
5. What is electronic PCR (e-PCR).

Section-B

(Short Answer Type Questions)

Note : Attempt any **two** questions out of the following three questions. Each question carries 5 marks. Short answer is required not exceeding 200 words.

6. Explain the recombinant DNA technology in Eukaryotes.
7. Discuss in detail about genomic library.
8. Discuss in detail the method of gene isolation.

Section-C

(Long Answer Type Questions)

Note : Attempt any **three** questions out of the following five questions. Each question carries 10 marks. Answer is required in detail.

9. Explain different kinds of Vectors.

10. Describe in detail the Sanger's dideoxy method of gene sequencing.

11. Write detail notes on the following:
    (a) Chromosome jumping
    (b) Yeast artificial chromosome (YAC)

12. Write down the different schemes and uses of PCR.

13. Discuss in detail the method of Southern blotting technique.