APRIL 2018 **1709327/UBYA62A**

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

Each question carries 2 marks.

1. What is a recombinant DNA?
2. Define Vectors.
3. What is cDNA?
4. Define electroporation.
5. Name some plant hormones.
6. What is a binary vector?
7. What is a transgenic mice?
8. Mention the types of PCR.
9. Define stem cell.
10. What is activated sludge process? ‘
11. Mention the types of vaccines.
12. What is biogas?

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

13. Give an account on the various types of restriction endonucleases.

14. Explain the structure and salient features of pBR322.

15. Describe the methodology involved in conjugation.

16. Discuss on the screening of recombinants by colony hybridization.

17. Briefly discuss on the Herbicide resistance.

18. Write short notes on southern blotting technique.

19. Discuss the industrial production of streptomycin.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

Each question carries 10 marks.

20. Describe in detail on role of enzymes used in the recombinant DNA technology.

21. Explain Gene transfer methods.

22. Give an account on : (a) Ti plasmid (b) Protoplast fusion.

23. Explain the principle, methodology and applications of ELISA.

24. Discuss the production of monoclonal antibodies.

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