

NOVEMBER 2017

1709212/PBYM31A

Time : Three hours

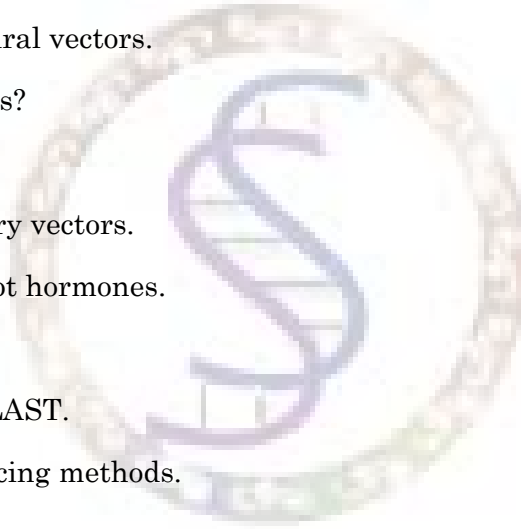
Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

Each question carries 1 marks.

1. What are molecular scissors?
2. Define isoschizomers.
3. Write the structure of pBR322.
4. Expand RAPD.
5. Give two example for viral vectors.
6. What are reporter genes?
7. Define Patent.
8. Give examples for binary vectors.
9. Name the root and shoot hormones.
10. What is Humulin?
11. Expand FASTA and BLAST.
12. Name the DNA sequencing methods.



SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

13. Explain about homopolymer tailing.
14. Write briefly on the role of Phasmids.
15. Describe about chromosomal walking.
16. What is primary culture? Outline the composition of serum and serum free media.
17. Comment on the process involved in delay of fruit ripening.
18. Briefly discuss about protoplast fusion.
19. Define a genome. Explain about the various types of gene map.

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

Each question carries 10 marks.

20. What is a recombinant DNA? Explain any two methods involved in selection and screening of recombinants.
21. Give a detailed account on construction of cDNA library.

22. Describe about the structure and functions of Adenoviruses.
23. Elaborately discuss on the gene transfer in plants using *Agrobacterium tumifaciens*.
24. Give an account on the production of insulin by rDNA technology.
25. Explain the principle methodology and applications of 2D gel electrophoresis.

