

Time : 3 Hours

Max. Marks: 75

(No additional sheet will be supplied)

PART – A (5x3 = 15 Marks)

Answer any FIVE Questions

Each question carries Three (3) Marks

Each answer should not exceed one (1) page

1. Organelle genomes
2. Arabidopsis genome project
3. Applications of molecular markers
4. Physical mapping
5. Applications of cDNA chips
6. Antisense RNA
7. Concept of metagenomics
8. EcoTILLING

PART- B (4 X 15 = 60 marks)

Answer ALL Questions.

Each question Carries 15 marks

Each answer should not exceed 6 pages.

9. Write in detail about various sequencing methods and give their applications.

(OR)

10. Give a detailed note on EST library preparation and its applications.

11. Discuss about different kinds of PCR based molecular markers.

(OR)

12. What are physical and genetic maps? Explain their advantages and disadvantages.

13. Explain the construction of DNA microarrays and their application in the field of genomics.

(OR)

14. Describe in detail about Real time PCR and give its applications.

15. Discuss TILLING and its applications.

(OR)

16. What is RNAi? Discuss in detail about the role of RNAi in gene silencing.

