

35014

M.Sc. DEGREE EXAMINATION, NOVEMBER 2016.

THIRD SEMESTER

Botany

Paper IV – MOLECULAR BIOLOGY OF PLANTS

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Polymerases
2. Fidelity of replication
3. RNA transport
4. RNA splicing
5. Prokaryotic ribosomes
6. Protein folding
7. mi RNA
8. DNA methylation.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Write a note on chemistry and molecular structure of RNA.

Or

10. Discuss the DNA damage and repair mechanism.
11. Describe the synthesis of RNA in eukaryotes.

Or

12. Explain the post transcriptional modifications of RNA.

13. Bring out the salient features of genetic code.

Or

14. Give a brief account on protein synthesis.

15. Explain the regulation of gene expression in prokaryotes.

Or

16. Mention the role of transcriptional factors in controlling gene expression.

