

35014

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

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. Fidelity.
2. Structure of nucleic acids.
3. RNA capping.
4. Polyadenylation of RNA.
5. Protein folding.
6. Ribosomes.
7. DNA methylation.
8. Trp-operon.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Mention the molecular structure of nucleic acids.

Or

10. Write a note on DNA damage and repair mechanisms .
11. Give an account on structure and functions of different types of RNA.

Or

12. Enumerate the RNA splicing mechanism.

13. Discuss the protein synthesis in Eukaryotes.

Or

14. What is the role of different types of RNA and t-RNA synthetase in translocation and proof reading.

15. Explain the control of gene expression at transcriptional level.

Or

16. Describe the role of mi RNA and small RNA's in gene silencing.

