

(041420302)

M.Sc. DEGREE EXAMINATION, APRIL 2018

SECOND SEMESTER

Branch - Botany

Paper III — MOLECULAR BIOLOGY OF PLANTS

Time : 3 Hours

Max. Marks : 70

PART - A

Answer any FOUR questions.

Each question carries 5 marks.

(Marks : 4 × 5 marks = 20 marks)

1. Structure of DNA.
2. Enzymes involved in Eukaryotic replication.
3. Structural genes.
4. Promoters.
5. tRNA.
6. Plant transcriptional factors.
7. DNA Methylation.
8. Attenuation.

PART - B

Answer ONE question from each Unit.

(Marks : 4 × 12.5 marks = 50 marks)

UNIT - I

9. Give an account of DNA damage and repair mechanism.

Or

10. Explain about the DNA replication in prokaryotes.

UNIT - II

11. Explain about the fine structure of prokaryotic and Eukaryotic genes.

Or

12. Give an account on genome organization in chloroplast.

[P.T.O]

UNIT - III

13. Define Transcription. Explain the mechanism involved in Eukaryotic transcription.

Or

14. Explain about the post Translational modifications and protein folding.

UNIT - IV

15. Explain the organization and regulation of Lac operon.

Or

16. Write an account on gene silencing and its significance with suitable examples.
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