

(041440202)

M.Sc. DEGREE EXAMINATION, APRIL 2018

FOURTH SEMESTER

Branch – Botany

Paper II — PLANT GENETIC ENGINEERING AND GENOMICS

Time : 3 Hours

Max. Marks : 70

PART – A

Answer any FOUR questions.

Each question carries 5 marks.

(Marks : 4×5 marks = 20 marks)

1. Plasmids
2. Restriction Endonucleases
3. Ti Plasmid
4. Floral pigments
5. Biodegradable plastics
6. Transposans
7. 2D-Electrophoresis
8. Mass spectrophotometry.

PART – B

Answer ONE question from each Unit.

(Marks : 4×12.5 marks = 50 marks)

UNIT – I

9. Give an account on Southern and Northern blotting techniques.

Or

10. Explain about the isolation and chemical synthesis of DNA.

UNIT – II

11. What is gene transfer? Explain about the physical methods of gene transfer.

Or

12. Give an account on strategies for the optimization of gene expression.

[P.T.O]

UNIT - III

13. Give a detailed account on nif gene regulation.

Or

14. Discuss the role of genetic engineering in the field of medicine.

UNIT - IV

15. Give an account on PCR variation and significance.

Or

16. Discuss in detail about DNA micro arrays and their importance.
