

35121

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

THIRD SEMESTER

Genetics and Genomics

Paper I — STRUCTURAL GENOMICS

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. Tandomly repeated sequences.
2. Telomers.
3. SCAR.
4. LOD Score.
5. UCSC.
6. Protein data bank.
7. Promoter.
8. Homology modelling.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Write a comparative account on genomic organisation of viruses, prokaryotes and eukaryotes.

Or

10. Explain different types of mapping techniques used in prokaryotes.

11. Write an account dominant DNA markers and their applications.

Or

12. Explain QTLs and their applications.

13. Explain whole genome sequencing and its application.

Or

14. Write about different sequence databases and their uses.

15. Write in detail about different predictive methods using genome sequence.

Or

16. Write in detail about protein structure prediction tools with special emphasis on protein structure evaluation and comparison.

