45122

M.Sc. DEGREE EXAMINATION, APRIL 2015.

FOURTH SEMESTER

Genetics and Genomics

Paper II — EPIGENOMICS

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. Sumoylation
2. Histone code
3. Transvection
4. Heterochromatin spreading
5. Rett syndrome
6. Chromatin remodeling
7. High resolution meting analysis
8. Southern bolt hybridization

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each question should not exceed 6 pages.

9. Discuss about the epigenetic regulation by nc RNA.

Or

10. Write an account on Dc novo methylation.
11. Explain the role of mi RNA epigenetics in cancer management.

Or

12. Discuss the causes and the consequences of DNA hypomethylation in cancer.

13. Mention the critical importance of epigenetics in Autoimmunity.

Or

14. Write an account on Alpha-thalassemia mental retardation syndrome.

15. Give an account on Non-methylation specific PCR based methods.

Or

16. Write an account on methylated CpG island amplication coupled microarray.
