

15102

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

FIRST SEMESTER

Zoology

Paper II — GENETICS AND EVOLUTION

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. Mendelian Laws of inheritance
2. Gene mapping
3. Sperm Banks
4. Human genome project
5. Models of speciation
6. Neo-Darwinism
7. Micro and Macro evolution
8. Phylogenetic gradualism

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Write an essay on Mutations. Add a note on the effect of mutations on progeny.

Or

10. Write briefly about Blood groups and their distribution. Add a note on the Bombay type blood group.

11. Write briefly about pedigree analysis with suitable examples.

Or

12. Write about the patterns of sex linked inheritance with suitable examples.

13. Write briefly about the theories of organic evolution with suitable examples.

Or

14. Describe the role of isolating mechanisms in the evolution.

15. Describe the importance of Gene evolution and Amino acid sequence in evolution.

Or

16. Write briefly about the destabilizing forces of evolution.

