

M.Sc. DEGREE EXAMINATION, APRIL 2015.

SECOND SEMESTER

Zoology

Paper II — DEVELOPMENTAL BIOLOGY

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. Germ cell.
2. Germplasm.
3. Post fertilization events.
4. Spermatogenesis.
5. Neurulation.
6. Metamorphosis in amphibians.
7. Ovarian development.
8. Morphogenesis.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Describe the germ cell determination in nemátodes and insects.  
Or
10. Explain the germ cell migration in *Drosophila*.
11. Write an essay on oogenesis.  
Or
12. Give an account on the biochemistry of fertilization.

13. Explain the tetrapod limb development.

Or

14. Describe the types of cleavages with a neat labeled diagram.

15. Explain the secondary sex determination in mammals.

Or

16. Write an account on the proximate tissue interaction.

