

45101

M.Sc. DEGREE EXAMINATION, MARCH/APRIL 2020.

FOURTH SEMESTER

Zoology

Paper I — ANIMAL BIOTECHNOLOGY

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. Kinases.
2. SV40.
3. Muscular dystrophy.
4. Cystic fibrosis.
5. Gene editing.
6. CRISPR.
7. Hypophysation.
8. Trademark.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each questions carries 15 marks.

Each answer should not exceed 6 pages.

9. What is cloning? Describe the selection strategies of recombinants.

Or

10. What is the role of plasmids and cosmids in cloning vectors used in gene cloning?

11. How the biotechnology is useful in production of vaccines. Explain the process in detail.

Or

12. - What is hybridoma technology? How can you produce monoclonal antibodies using this technology?

13. How the *in vitro* fertilization helps for live stock improvement? Explain with examples.

Or

14. What is gene editing? Explain gene silencing technology.

15. Write an essay on marine bio resources and its applications in pharmaceuticals.

Or

16. Describe pearl culture technology and its importance to Indian economy.

