

45023

M.Sc. DEGREE EXAMINATION, MARCH/APRIL 2019.

FOURTH SEMESTER

Biochemistry

Paper III — 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. Glucose isomerase.
2. Biosensors.
3. Antibiotics.
4. Single cell protein.
5. HAT medium.
6. Foot and mouth disease.
7. Gene transfer.
8. Protoplast fusion.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Explain the procedure involved in the immobilization of enzymes and discuss their industrial applications.

Or

10. Discuss the medical and biosensor applications of immobilized enzymes:

11. How to isolate and preserve the industrial important microorganisms?

Or

12. How to construct fermentor and explain the principle and types of fermentors?

13. Describe how Hybridoma technology is useful to produce monoclonal antibodies?

Or

14. What is Vaccine and explain the various types of Vaccines?

15. How to produce transgenic animals and explain their applications?

Or

16. What is gene transfer and discuss the various methods of gene transfer?

