

45024

M.Sc. DEGREE EXAMINATION, APRIL 2015.

FOURTH SEMESTER

Biochemistry

Paper IV — APPLIED BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

SECTION A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 2 pages.

1. Continuous fermentation method.
2. Fermentor.
3. Biosensor.
4. Applications of glucose isomerase.
5. Attenuated vaccine.
6. Protoplast fusion.
7. Micropropagation.
8. Somaclonal variations.

SECTION B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Discuss about industrial scale production of Vitamin B12.

Or

10. Write briefly about different methods preservation and maintenance of microorganisms.
11. Elaborate on immobilization of enzymes and their applications.

Or

12. Give a detailed account on clinical applications of enzymes.

13. Explain in detail on the production of hybridomas and their selection using selective media.

Or

14. Write a brief account on different methods for the design of vaccine.

15. Briefly discuss about different methods of gene transfer.

Or

16. Discuss about production of transgenic plants and animals and their applications.

