

45023

M.Sc. DEGREE EXAMINATION, APRIL 2018.

Biochemistry

FOURTH SEMESTER

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 Answer carries 3 Marks.

Each questions should not exceed 1 page.

1. Write short note on "encapsulation"
2. Applications of lactase in food industry.
3. Mention various unit operations used in the recovery and purification of a fermented product?
4. Write short note on "Saccharification?"
5. Role of HAT medium in hybridoma technology.
6. Subunit Vaccines.
7. Cybrids.
8. Write short note on somaclonal variation.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each Answer carries 15 Marks

Each Question should not exceed 6 pages.

9. Define immobilized enzymes. What are the merits of enzyme immobilization by entrapment and crosslinking? Describe any one method widely used thr entrapment of enzymes?

Or

10. Explain the different types of proteases with their application in food and industry?

11. Describe the manufacturing process of Red wine along with flow chart?

Or

12. Describe the fermentation media, components, preparation and sterilization process?

13. Explain the potential use of live viral and bacterial vectors for vaccine development?

Or

14. What are monoclonal antibodies? Describe the methods of screening and purification in detail with application?

15. Explain somatic hybridization in crop plants. Give three examples each of inter specific and inter generic hybrids.

Or

16. Define transgenic animal and explain the various methods for the development of transgenic animals.

