

FACULTY OF SCIENCE
M. Sc. IV – Semester Examination, May / June 2016

Subject : Microbiology

Paper – II : Microbial Biotechnology

Time : 3 Hours

Max. Marks: 80

Note : Answer all questions from Part–A and Part–B. Each question carries 4 marks in Part–A and 12 marks in Part – B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

- 1 Inoculum preparation
- 2 Fruit selection for wine
- 3 Structure of vitamin B₁₂
- 4 Industrially important microorganisms
- 5 Mode of action of tetracyclines
- 6 Structure of Penicillins
- 7 Amylase
- 8 Immobilized bacteria

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

- 9 (a) Explain the process of fermentative production of industrial alcohol?
OR
(b) Write an essay on principles of wine making.
- 10 (a) Describe the fermentative production of citric acid.
OR
(b) Explain fermentative production of glutamic acid.
- 11 (a) Explain the commercial production and uses of benzyl penicillin.
OR
(b) Discuss the various aspects involved in fermentative production of tetracycline.
- 12 (a) What are analysis? Describe the production and applications of amylases.
OR
(b) What are the microbial products? We obtained from genetically modified organisms? Explain how insulin is produced.
