



Code No. : 9571

FACULTY OF SCIENCE
M.Sc. IV Semester Examination, May/June 2012
MICROBIOLOGY
Paper – II : Microbial Biotechnology

Time : 3 Hours]

[Max. Marks : 80

Note : 1) Answer *all* questions.

2) Section **A** questions carry 4 marks and Section **B** questions carry 12 marks.

SECTION – A

(8×4=32 Marks)

Short answer type :

- | | |
|-------------------------------|------------------------|
| 1. Mashing | 5. Lipases |
| 2. Uses of industrial alcohol | 6. Vaccine production |
| 3. Cyano cobalamin | 7. Tetracycline |
| 4. Recovery of citric acid | 8. Penicillin recovery |

SECTION – B

(4×12=48 Marks)

Essay type :

9. a) Explain the principles of wine making.
OR
b) What are hops ? Describe their role in beer manufacture.
10. a) Describe clearly the mechanism of high citric acid accumulation by higher strains.
OR
b) Explain the production of glutamic acid by fermentations.
11. a) Describe the commercial production of oxytetracycline by fermentation.
OR
b) What are semisynthetic penicillins ? Explain how they are manufactured ?
12. a) What are proteases ? Describe their production by fermentation with a note on their applications.
OR
b) Explain important steps involved in steroid biotransformations.