

Faculty of Pharmacy

B.Pharm. Third Semester (C.B.S.) Examination

PHARMACEUTICAL MICROBIOLOGY AND
IMMUNOLOGY—I

Paper—V

Time : Three Hours]

[Full Marks : 80

N.B. :— (1) Question No. 1 is compulsory.

(2) Solve any **FOUR** questions from the remaining.

(3) Draw neat labeled diagram wherever necessary.

(4) Use of electronic calculator is permitted.

1. Answer the following (any **five**) : 4×5=20

(a) Give the contributions of Antony Van Leeuwenhoek.

(b) Discuss the economic importance of fungi.

(c) Comment on mutagenic agents.

(d) Explain the growth curve of bacteria.

(e) Write a note on plasmids.

- (f) Define different types of bacteria based on temperature requirements.
- (g) Comment on AIDS.
2. (a) Discuss the scope and applications of microbiology to pharmaceuticals. 8
- (b) Discuss the contributions of Louis Pasteur. 7
3. Give the classification of microscopes. Describe in detail types of electron microscopes-SEM and TEM. 15
4. (a) Explain the methods of measurement of bacterial growth. 8
- (b) Describe the different types of culture media. 7
5. (a) Explain recombination in bacteria by conjugation. 8
- (b) Explain the cell wall of bacteria. 7
6. (a) Describe the lysogenic cycle in bacteriophage. 8
- (b) Explain the structure of virus with a well labelled diagram. 7
7. Write short notes on any **three** : 3×5=15
- (a) Reproduction in fungi.
- (b) Etiology, patho physiology, transmission, prevention and treatment of *any one* disease :
- (i) Cholera
- (ii) Tuberculosis
- (iii) Typhoid.
- (c) Replica plate technique.
- (d) Nutritional requirements of bacteria.