

B.Pharm. Semester—III (C.B.S.) Examination
PHARMACEUTICAL MICROBIOLOGY AND IMMUNOLOGY-I
Paper—5

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) Question No. 1 is compulsory.

- (2) Solve any **four** questions from the remaining.
- (3) Draw neat labelled diagrams wherever necessary.
- (4) Discuss the reaction, mechanism wherever necessary.
- (5) Use of electronic calculator is permitted.
- (6) Assume suitable data wherever necessary.

1. (a) Explain the Whittaker's five kindom concept.
(b) Write shape, size and arrangements of bacterial cell.
(c) Differentiate between the phase control and fluoresece microscope.
(d) Write the scope of microbiology in the field of pharmacy.
(e) Discuss the nutritional requirements of fungi.
(f) Write short note on fungal infection.
(g) Write short note on AIDS. 4×5=20
2. (a) Draw a nutshell of bacterial cell. 8
(b) Write the contribution of Alexander Fleming, Antony Van Leeuwenhoek, Louis Pasteur, Robert Koch and Paul Ehrlich in the field of microbiology. 7
3. (a) Describe the isolation and prevention of the pure culture. 10
(b) Explain the bacterial growth causes. 5
4. (a) Write in detail about the protein synthesis of bacteria. 10
(b) How will you measure the bacterial growth ? 5

5. Differentiate the following :
- (1) Prokaryotes and Eukaryotes
 - (2) Gram +ve bacteria and Gram –ve.
 - (3) Bacteria and virus. 15
6. (a) Explain the cultivation and multiplication of viruses. 10
- (b) Write about the replica plate technique. 5
7. Write etiology, pathophysiology, transmission, prevention, treatment of the following diseases (any **three**) :
- (1) Typhoid
 - (2) Malaria
 - (3) Cholera
 - (4) Influenza
 - (5) Leprosy
 - (6) Tuberculosis. 5×3=15