

PHARMACEUTICAL MICROBIOLOGY AND IMMUNOLOGY-I

Paper-5

Time : Three Hours]

[Maximum Marks : 80

N.B. :- (1) Q. No. 1 is compulsory.

(2) Attempt any **four** questions out of remaining.

(3) All questions carry marks as indicated.

(4) Draw neat labeled diagram wherever necessary.

1. Answer the following (any **five**) :

(a) Draw a well labelled diagram of bacterial cell and bacteriophage.

(b) Discuss fluorescence microscope.

(c) Write about various types of culture media.

(d) Write about flagella and its functions.

(e) Explain methods of bacterial isolation.

(f) Give a note on replica plate technique.

(g) Discuss about shapes and arrangements of bacteria.

5×4=20

2. (a) Write in brief about scope and application of microbiology.

8

(b) Explain the bacterial growth curve.

7

3. Explain the structure of virus. Discuss in detail the various methods of cultivation of virus.

15

4. Write etiology, pathophysiology, transmission and prevention and treatment of following diseases (any 3) :

(a) Typhoid

(b) Malaria

(c) Aids

(d) Tuberculosis.

5. Discuss in detail about bacterial recombination.

15

6. Discuss in detail methods of the measurement of bacterial growth.

15

7. Write short notes (any 2) :

(a) Reproduction in fungi.

(b) Mutation and its types.

(c) Compound microscope.

7.5×2=15