



Second Semester B. Sc. Examination

BIOCHEMISTRY

Paper - II

(Microbiology and Immunology)

Time : Three Hours]

[Max. Marks : 50

N. B : (1) All questions are compulsory.
(2) All questions carry equal marks.

1. Explain Nutritional classification of Bacteria.

OR

Explain any two methods of obtaining pure culture of Bacteria. 10

2. Write short notes on :—

(a) Use of temperature in microbial control.
(b) Mechanism of cell injury.

OR

(a) Use of chemotherapeutic agents in microbial control.
(b) Standardization of disinfectant. 10

3. Explain the structure of IgG in detail.

10

OR

Explain organ and cells of Immune system with their functions. 10

4. Write in brief :—

(a) Clonal selection theory.

5

(b) Applications of monoclonal Antibodies.

5

OR

(c) Describe hybridoma technology.

5

(d) Describe the alternative complement pathway.

5

5. Solve any Ten of the following :—

(i) Name any one Antibiotic.

1

(ii) Define phenol coefficient.

1

(iii) Define sterilization.

1

(iv) What are auxotrophs ?

1

(v) Name any two phototrophs.

1

(vi) Name any two chemotrophs.

1

(vii) Define Haptens.

1

(viii) Which non-covalent interactions are involved in antigen antibody binding ?

1

(ix) What is 'J' chain ?

1

(x) Which cells are involved in Humoral immunity ?

1

(xi) Write long from of HAT medium.

1

(xii) Write the long from of MAC used in complement system.

1