

Exam. Code : 107403

Subject Code : 1841

B.Sc. Biotechnology 3rd Semester

BASIC CONCEPTS IN IMMUNOLOGY

Paper—BT-5

Time Allowed—3 Hours] [Maximum Marks—40

Note :—Section A (1×8 marks) is compulsory.
Section B (5 × 4 marks) : Attempt any **FIVE** questions. The answer should not exceed 2 pages. Section C (6 × 2 marks) : Attempt any **TWO** questions. The answer should not exceed 5 pages.

SECTION—A

(Compulsory)

Write a brief account of the following :—

- I. (a) Define primary immune response.
- (b) Antigenicity.
- (c) Monocytes.
- (d) MALT.
- (e) High affinity antibodies.
- (f) Complement activators.
- (g) Domain.
- (h) Hinge region.

SECTION—B

Attempt **FIVE** questions :—

- II. Describe how body is protected from infections immediately after birth without immunization.
- III. How body differentiates between self and non self antigens ?
Can we prove it ?
- IV. Describe the structure and functions of Thymus and GALT lymphoid organs.
- V. Explain the heterogeneity of lymphoid cells.
- VI. What type of interactions occur between antigen and antibodies ?
- VII. Give the major features of an immunoglobulin. Also differentiate between IgG and IgM.
- VIII. What are the major features of MHC Class I antigens ?
- IX. Give the functions of Class II MHC.

SECTION—C

Attempt **TWO** questions :—

- X. Differentiate between primary and secondary immune responses.
- XI. Write down the structural features and functions of lymph nodes and Thymus.
- XII. Describe the cell lysis phenomenon by complement activation.
- XIII. Give in detail the structure of TCR and write the accessory molecules required for its activation.