

SCHOOL OF CHEMICAL AND LIFE SCIENCE
B.Sc.-M.Sc. INTEGRATED PROGRAMME
SEMESTER II EXAMINATION, AUGUST 2022
PAPER CODE: BBT-CC05 TH
PAPER TITLE: IMMUNOLOGY

Time: 3 Hours

Maximum Marks: 75

Write your examination number on the top. Attempt all questions. All parts of a question must be attempted in continuation. Start the answer to the next question on a new page. Cite examples and draw labeled diagrams wherever necessary.

Question 1. Mark the most suitable answer of multiple choice and true-false questions. [1x15=15]

- I. Which one is a component of secondary lymphoid organs
 - a. Bone marrow
 - b. Thymus
 - c. Germinal center
 - d. None of the above
- II. The dendritic cells (APCs) cannot be derived from
 - a. Hematopoietic stem cells
 - b. Lymphoid progenitor cells
 - c. Myeloid progenitor cells
 - d. None of the above is correct
- III. Paratopes are
 - a. Antigenic determinants binding site on antibody
 - b. Antigenic determinant on antibody
 - c. Antigenic determinant on variable region of antibody
 - d. Antigenic determinant on Fc region of antibody
- IV. Which antibody is present on B cells when they migrate from bone marrow.
 - a. IgG
 - b. IgM
 - c. IgE
 - d. IgA
- V. What is MHC restriction
 - a. The CD4⁺ cells will recognize antigen on MHC-I
 - b. The CD4⁺ cells will recognize antigen on MHC-II
 - c. The CD8⁺ cells will recognize antigen on MHC-I
 - d. Option A is incorrect
- VI. CLIP protein is associated with
 - a. MHC-I presentation
 - b. MHC-II presentation
 - c. Both MHC-I and MHC-II presentation
 - d. None of the above
- VII. Atopy is an example of
 - a. Type I hypersensitivity
 - b. Type II hypersensitivity
 - c. Type III hypersensitivity
 - d. Type IV hypersensitivity
- VIII. Which statement is wrong about MHC-I molecules
 - a. MHC-I Molecules specifically bind to a specific antigen
 - b. MHC-I presents antibody to CD8⁺ T cells
 - c. KAR is activated because of substantial expression of MHC-I
 - d. MHC-I and antigen complex can be recognized by TCR of CD8⁺ T cells
- IX. Which antibody can cross the placenta
 - a. IgD
 - b. IgG
 - c. IgE
 - d. IgM

