

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.Sc. (Hons.) Biotechnology 3rd Semester

(2122)

IMMUNOLOGY-I

Paper : BIOT-303-T

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt five questions in all, including Question No. 1 which is compulsory and select one question each from Units I-IV. All parts of a question should be done in continuation.

1. (a) Histamines
(b) Mast cells
(c) Dendritic cells
(d) Heptans
(e) Lysozyme in tears
(f) Immunogenicity
(g) Haplotype
(h) Passive immunity
(i) TCR CD3 complex
(j) Peptide binding pocket of MHC I 10×1.5

UNIT—I

2. (a) Discuss the salient features of Acquired Immune system. 6
(b) Write a note on the clonal nature of immune response. 7
3. (a) Discuss the process of Hematopoiesis and differentiation. 7
(b) Write a note on the role of Neutrophils in Inflammation. 6

UNIT—II

4. (a) Discuss the role of the systemic function of immune system. 6
(b) Explain the organization and functions of lymph node with a well labeled diagram. 7
5. (a) Discuss five features of B cell epitopes. 6
(b) Write a role on the pattern recognition receptors. 7

UNIT—III

6. Explain the generation of antibody diversity. 13
7. (a) Write a note on the antigenic determinants on Immunoglobulin. 7
(b) Discuss the process of B cell activation. 6

UNIT—IV

8. (a) Describe the regulation of MHC expression and disease susceptibility. 7
(b) Discuss the process of Thymic selection of T cell repertoire. 6
9. (a) Explain the role of Peripheral $\gamma\delta$ T cells in immune system. 6
(b) Elaborate on the process of T cell activation and differentiation. 7