

2071

M.Sc. (Biotechnology) Second Semester
MBIO-202: Biology of Immune System

Time allowed: 3 Hours

Max. Marks: 80

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer briefly:-

- a) Secondary lymphoid organ
- b) Super antigens
- c) TCR CD3
- d) Helminthes
- e) T-dependent B cell antigens
- f) IFN γ
- g) Clonal expansion
- h) Mast cells

(8x2)

UNIT – I

- II. a) Write a note on the structure of the antibody molecule.
- b) Explain any two methods used to detect antigen-antibody interactions. (2x8)
- III. a) What are the attributes of acquired immunity?
- b) Discuss the different barriers of innate immunity. (2x8)

UNIT – II

- IV. a) Discuss the structure of MNC - I and explain the location of the antigen binding pocket.
- b) Write a note on macrophager and the process of phagocytosis. (2x8)
- V. a) Elaborate on the activation of T-lymphocytes.
- b) Discuss the role of cytotoxins in immune regulation. (2x8)

P.T.O.

(2)

UNIT – III

- VI. a) Discuss the mechanism of NK cell mediated lysis.
b) Explain the process of antibody dependent cell mediated cytotoxicity. (8,8)
- VII. a) Write a note on Type - I hypersensitivity.
b) Discuss any autoimmune disorders. (2x8)

UNIT – IV

- VIII. a) Write a note on tumor immunology.
b) How are monoclonal antibodies generated? (8,8)
- IX. a) What causes AIDS? How does AIDS lead to immunodeficiency?
b) Discuss the process of allograft rejection? (8,8)

x-x-x