

No. of Printed Pages : 03

Roll No.

D-62

B. Tech. EXAMINATION, May 2017

(Fourth Semester)

(B. Scheme) (Main & Re-appear)

(BT)

BT-204-B

IMMUNOLOGY

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. Discuss in detail different types of cells in our body that are involved in adaptive immune response. **15**

(2-29) M-D-62

P.T.O.

2. Write short notes on the following :

- (i) Structure and functioning of lymph nodes
- (ii) Hematopoiesis
- (iii) Differentiate between innate and acquired immunity.

Unit II

- 3. (a) Write about different classes of antibodies and discuss their functions. **8**
(b) Discuss the production of monoclonal antibodies by hybridoma technology in detail. **7**
- 4. (a) Discuss in detail the reasons for generation of Ab diversity. **5**
(b) How B-cell activation and differentiation takes place ? **5**
(c) What is Major Histocompatibility Complex ? Briefly describe different MHC molecules. **5**

M-D-62

2

Unit III

- 5. (a) Write in detail about different ELISA assays and how do they differ from radioimmunoassay. **10**
(b) Write a note on immunoelectrophoresis. **5**
- 6. (a) Draw the alternate pathway of complement system. **7**
(b) What are Cytokines ? Name a few cytokines with their properties and functions. **8**

Unit IV

- 7. (a) Discuss in detail Class I Hypersensitivity. **10**
(b) What are the causes of autoimmunity ? **5**
- 8. (a) Differentiate between live attenuated and killed vaccines. **4**
(b) What are the conjugate vaccines and what are their advantages ? **4**
(c) Discuss immune response to infectious viral diseases. **7**

(2-29) M-D-62

3

60