No. of Printed Pages: 03 Roll No.

D-62

B. Tech. EXAMINATION, May 2018

(Fourth Semester)

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

(BT)

BT204B

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. All questions carry equal marks.

(2-35/11) M-D-62

P.T.O.

Unit I

- Differentiate between Primary and Secondary lymphoid organs. Discuss the different types of cells of the immune system along with their roles.
- 2. Write short notes on the following: $5\times3=15$
 - (a) Immunity and its types
 - (b) Various types of immune responses
 - (c) Haematopoiesis.

Unit II

3. Describe the basic structure of Ig molecule. Discuss various classes of immunoglobulins.

15

- **4.** Write short notes on any *three* of the following:
 - (a) T-Cell activation and its differentiation

2

- (b) Haptens and Antigenic determinants
- (c) Hybridoma Technology
- (d) Major histocompatibility complex.

Unit III

- 5. Write detailed notes on the following: 15
 - (a) Complement System
 - (b) Cytokines-Properties and their role in immune regulation.
- 6. Differentiate between ELISA, RIA and Florescent Ab method. Discuss the principle, advantages and types of ELISA.15

Unit IV

- 7. Describe various types of Vaccines and their development.15
- **8.** Write detailed notes on any *two* of the following:
 - (a) Types of Hypersenstivity
 - (b) Secondary immune deficiencies
 - (c) Role of MHC and TCR in autoimmunity.

 $7.5 \times 2 = 15$

M-D-62

(2-35/12) M-D-62

3

70