



NCC-003-013202 Seat No. _____

M. Sc. (Biotechnology) (Sem. II) (CBCS) Examination

April / May - 2017

BT - 208 : Immunology

(Old Course)

Faculty Code : 003

Subject Code : 013202

Time : Hours]

[Total Marks : 70

Instruction : All questions are compulsory and carry **equal** marks.

1 Answer any **seven** of the followings : **14**

- (a) Explain the terms : Complements and Interferon.
- (b) What is Phagocytises ?
- (c) Distinguish between antigens, haptens and immunogen.
- (d) How antigen-antibody interaction takes place ?
- (e) What are the biological functions of Ig molecule ?
- (f) What are polyclonal antibodies ?
- (g) Why T-cell cannot recognize antigen directly ?
- (h) Explain toleragm.
- (i) What is serum sickness ?
- (j) What is antigen processing ?

2 Answer any **two** of the following : **14**

- (a) Describe innate immunity.
- (b) Describe the three major events in the inflammatory response.
- (c) Enlist various Organs of the Immune System and describe them in brief.

- 3** Answer the following : **14**
- (a) Highlights the principle and application of Radio Immunoassay.
 - (b) Explain ELISA as an Immunologic technique.
- OR**
- 3** Write an essay on the following : **14**
- (a) Structure and functions of immunoglobulin.
 - (b) Write a note on Hematopoiesis.
- 4** Answer the followings : **14**
- (a) What are lymphocyte presentation and activation ?
 - (b) Discuss in detail various features of T-cell receptors.
- 5** Write notes on any **two** : **14**
- (a) Discuss in detail the structure and functions of various classes of MHC molecule.
 - (b) Discuss in detail the transplantation immunology.
 - (c) Write an essay on principle of immunization and various types of vaccines.
 - (d) Discuss in detail the mechanism of autoimmunity and various types of autoimmune diseases.
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