



MCA-003-1132002 Seat No. _____

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

April / May - 2018

BT - 207 : Immunology

Faculty Code : 003

Subject Code : 1132002

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1** Answer the following : (Any **Seven** out of Ten, each of **14** 02 marks)
- (1) What is phagocytosis?
 - (2) What is an antigen presenting cell?
 - (3) What is idiotype antibody?
 - (4) Define the term "agglutination".
 - (5) Enlist family of cytokines.
 - (6) What are T-cell receptors?
 - (7) What is HLA ?
 - (8) What is MHC?
 - (9) What are interleukins?
 - (10) What is self tolerance ?
- 2** Answer the following : (Any **Two** out of Three, each of **14** 07 marks)
- (a) Explain thymus as a primary immune organ.
 - (b) Discuss various components of mucosal immunity.
 - (c) What is cell mediated immunity? Explain.
- 3** Answer the following : (Each of 07 marks) **14**
- (a) Describe the structure of an antibody.
 - (b) Write a short note on principle and application of precipitation and agglutination.

OR

- 3** Answer the following : (Each of 07 marks) **14**
- (a) Write a short note on T-cells mediated Immunity.
 - (b) What are chemokines? Discuss different families of chemokines.
- 4** Answer the following : (Each of 07 marks) **14**
- (a) Discuss in detail the transplantation immunology.
 - (b) What are major histocompatibility complexes? Explain its biological and evolutionary significance.
- 5** Answer the following : (Any **Two** out of four, each of 07 marks) **14**
- (a) Write note on congenital immunodeficiency.
 - (b) Write a note on production of monoclonal antibody.
 - (c) Discuss mechanism of autoimmunity.
 - (d) What are vaccines? Discuss DNA vaccines.
-