

Seat No. : _____

MM-102

May-2018

B.Sc., Sem.-IV

CC-205 : Biotechnology
(Immunology)

Time : 3 Hours]

[Max. Marks : 70

1. Answer any **two** of the following : 14
 - (A) Describe the precipitation reaction of Antigen-antibody.
 - (B) Explain the general structure of immunoglobulin with suitable diagram.
 - (C) Define Adjuvants and explain its types.
 - (D) Discuss the mechanism of action of Super antigens with suitable diagram.

2. Answer any **two** of the following : 14
 - (A) Discuss the role of APCs in the immune system.
 - (B) Explain Primary and Secondary immune response.
 - (C) Describe thymus as an organ of central role in immune system.
 - (D) 'Spleen is the important organ of the Lymphatic system'. Explain.

3. Answer any **two** of the following : 14
 - (A) Discuss the types of graft with examples.
 - (B) Explain how organ transplantation and immunosuppression are interlinked.
 - (C) Describe the Anticancer role of CMIR.
 - (D) Discuss the steps involved in HLA Typing and give its applications.

4. Answer any **two** of the following : 14
 - (A) Define Hypersensitivity. Explain Anaphylactic Hypersensitivity.
 - (B) Enlist the type of Autoimmune disorders and explain any one in detail.
 - (C) Discuss Acquired type of Immunodeficiency giving the example of AIDS.
 - (D) Explain the sequence of events in Erythroblastosis fetalis and means for its prevention.

5. Answer in brief :

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- (1) Define Haptens.
 - (2) What are Antigenic determinants ?
 - (3) What is MLR ?
 - (4) State the early symptoms of RA.
 - (5) Name two Immunosuppressants.
 - (6) Give the cause of Myasthenia Gravis.
 - (7) Define MHC molecules.
 - (8) What is serum sickness ?
 - (9) Define Abzymes.
 - (10) What is the purpose of Complement fixation test ?
 - (11) Draw the labelled diagram of bone marrow.
 - (12) Give the location of Peyer's patches in the body.
 - (13) Give the example of naturally acquired passive immunity.
 - (14) Differentiate between Monoclonal and Polyclonal antibodies.
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