

Seat No. : _____

DA-113

December-2013

B.Sc. (Sem.-V)

MI-303 : Microbiology (Principles of Immunology)

Time : 3 Hours]

[Max. Marks : 70

Instructions : (1) Right side indicate marks.
(2) Draw figures wherever necessary.

1. Write as required on the following : (Any **two**) **14**
 - (a) Explain Acquired active immunity.
 - (b) A note on characteristics of Immune response.
 - (c) Discuss the structure and functions of one central lymphoid organ.
 - (d) Write note on the production and use of monoclonal antibodies.

2. Write short notes on the following : (Any **two**) **14**
 - (a) Properties of Antigen.
 - (b) Significance of precipitation reactions.
 - (c) Physicochemical structure of antibody monomer and its biological functions.
 - (d) Different methods of performing ELISA.

3. Explain the following : (Any **two**) **14**
 - (a) Type one hypersensitivity reactions.
 - (b) Acquired immuno deficiency.
 - (c) Concept of autoimmunity and causes for its development.
 - (d) Types of reactions occurring in transplantation immunity.

4. Write as required on the following : (Any **two**) **14**
 - (a) Enlist types of vaccines and discuss about any one.
 - (b) A note on blood constituents and concept of blood banking.
 - (c) Discuss the schedule of vaccination in children.
 - (d) Discuss the blood group antigens and their significance in blood transfusion.

5. Write briefly in **one** or **two** lines on the following : (Any **seven**)

14

- (a) Adjuvant
 - (b) Complement
 - (c) Passive immunity
 - (d) Species immunity
 - (e) Apoptosis
 - (f) Phagocytosis
 - (g) Innate immunity
 - (h) Write two functions of T cells
 - (i) Name two examples of skin test
 - (j) Write two examples of attenuated vaccines.
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