



GAZ-457

Seat No. _____

B. Sc. (Sem. VI) Examination

March / April – 2017

Microbiology : Paper - MI-601

(Immunology) (Core Course)

Time : 3 Hours]

[Marks : 70

- 1 (a) Answer any two of the following in not more than 5/6 lines : 4
- (i) Define : Antigen.
 - (ii) Explain the term : Cell mediated response.
 - (iii) Define : Immunoglobulin
 - (iv) explain the term : Humoral Immunity
- (b) Discuss any two of the following : 14
- (i) Discuss and differentiate Primary and Secondary immune response with illustrations.
 - (ii) Discuss various types of immunity.
 - (iii) Discuss cells and organs of the immune system.
- 2 (a) Answer any two of the following in not more than 5/6 lines : 4
- (i) Define Hapten.
 - (ii) Draw a labelled structure of immunoglobulin
 - (iii) Explain the term : Polyclonal Antibody
 - (iv) What are Cell Associated Differentiation Antigens ?

- (b) Discuss any two of the following : 14
- (i) Discuss the physical structure, function and distribution of IgA, IgD and IgM.
 - (ii) Write a detailed note on ABO and Rh antigen.
 - (iii) Discuss Monoclonal Antibody production and application.
- 3 (a) Answer any two of the following in not more than 5/6 lines : 3
- (i) Define : Titer
 - (ii) Give full form of ELISA and RIA.
 - (iii) What are Precipitins ?
- (b) Discuss any two of the following : 14
- (i) Agglutination Reactions.
 - (ii) Immuno electrophoresis.
 - (iii) Neutralization Reactions
 - (iv) Complement Fixation test.
- 4 (a) Answer any two of the following in not more than 5/6 lines : 3
- (i) Define the term : Hypersensitivity.
 - (ii) Explain the term : Sensitization
 - (iii) Define the term : Immunodeficiency
- (b) Write a short note on any two of the following : 14
- (i) Discuss type I hypersensitivity.
 - (ii) What is a graft ? Write a short note on mechanism of graft rejection.
 - (iii) Discuss congenital immunodeficiencies.
 - (iv) Discuss Auto-immune disorders.
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