



RX-003-1016037

Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

March - 2019

BC - 602 : Biochemistry

(Immunology)

Faculty Code : 003

Subject Code : 1016037

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

[Total Marks : 70

- 1 (A) Answer the following questions very briefly or in a one word or in a line : 4
- (1) Immunity is the ability of the body to- defend itself against which kinds of antigens? (Self / non self)
 - (2) Write the full form of BCR.
 - (3) Write the full form of MHC.
 - (4) Write the characteristics of adaptive immunity
- (B) Answer the following question in brief : (Any One) 2
- (1) Write the function of Calnexin molecule
 - (2) Write the main component of anatomical barrier
- (C) Answer the following question in detail : (Any One) 3
- (1) With the help of diagram explain Clonal selection
 - (2) Draw the diagram showing the activation of T_H cell.
- (D) Answer the following question : (Any One) 5
- (1) Explain the structure of MHC class II and its interaction with the antigenic peptide.
 - (2) Explain inflammatory response with suitable diagram.

- 2 (A) Answer the following questions very briefly or in a one word or in a line : 4
- (1) Which type of organ will be more effective in removal of blood born antigens?
 - (2) Clonal expansion of B lymphocytes leads to the production of which molecules?
 - (3) Which types of light chains are present in the immunoglobulin structure?
 - (4) Define the term: Class Switching
- (B) Answer the following question in brief : (Any One) 2
- (1) Define: Immunogenicity
 - (2) Write the examples of generative lymphoid organs.
- (C) Answer the following question in detail : (Any One) 3
- (1) Draw a well labelled diagram of spleen.
 - (2) Write about the different classes of antibodies and explain any one in brief.
- (D) Answer the following question : (Any One) 5
- (1) Explain the basic structure of immunoglobulin with labelled diagram.
 - (2) Write a note on Thymus with appropriate illustration.
- 3 (A) Answer the following questions very briefly or in a one word or in a line : 4
- (1) Write the complex which can function as CS convertase
 - (2) Write the difference between immunogenicity and antigenicity.
 - (3) Write at least one principal function of complement system.
 - (4) Which type of immunoglobulin has secretory component?

- (B) Answer the following question in brief : (Any One) 2
- (1) Define: Precipitation reaction
 - (2) Write the full form of ADCC and its function.
- (C) Answer the following question in detail : (Any One) 3
- (1) Explain Ouchterlony method with diagram
 - (2) Briefly write the role of class switching in the immune response.
- (D) Answer the following question : (Any One) 5
- (1) Write a note on Activation of complement system by Alternate pathway.
 - (2) Explain different functions of complement system to support immune system.
- 4 (A) Answer the following questions very briefly or in a one word or in a line : 4
- (1) Define Autoimmunity.
 - (2) Hemolytic disease of newborn is the example of which type of hypersensitivity?
 - (3) Define : Degranulation of mast cell
 - (4) Define tumor antigens.
- (B) Answer the following question in brief : (Any One) 2
- (1) Write names of cells which can kill the tumor cells effectively.
 - (2) Define the role of T_{DTH} in hypersensitivity.
- (C) Answer the following question in detail : (Any One) 3
- (1) What is Autoimmunity? Write the differences between systemic and organ specific autoimmune diseases.
 - (2) Write a note on Hashimoto's Thyroiditis

- (D) Answer the following question : (Any One) 5
- (1) Write a note on Type II hypersensitive reactions with at least one disorder associated with it.
 - (2) Write any two clinical conditions associated with Type I hypersensitive reactions.
- 5 (A) Answer the following questions very briefly or in a one word or in a line : 4
- (1) Write the full form of TAP.
 - (2) The process of weakning of antigen for vaccine preparation is called _____.
 - (3) Write the full form of HIV
 - (4) What do you understand by the term anchor residue?
- (B) Answer the following question in brief : (Any One) 2
- (1) Write the full form of HAART
 - (2) Differentiate between HIV positive and AIDS.
- (C) Answer the following question in detail : (Any One) 3
- (1) Draw the diagram showing the maturation of MHC Class I molecule
 - (2) Write a note on Attenuated vaccine.
- (D) Answer the following question : (Any One) 5
- (1) Explain endocytic pathway of antigen processing and presentation using the labelled diagram.
 - (2) Explain multivalent subunit vaccine with the help of neat labelled diagram.
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