



RN-003-1015009

Seat No. _____

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

February - 2019

MB - 501 : Immunology & Medical Microbiology

Faculty Code : 003

Subject Code : 1015009

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

[Total Marks : 70

- Instructions :**
1. All questions are compulsory.
 2. Draw figure wherever necessary.

- 1 (A) Answer the following questions : 4
- (1) Give full form of CALT
 - (2) What is White Pulp?
 - (3) What are Agranulocytes ?
 - (4) What is innate immunity?
- (B) Answer in brief : (Any 1 out of 2) 2
- (1) Give two functions of Lymph node.
 - (2) Give two functions of Thymus.
- (C) Answer in detail : (Any 1 out of 2) 3
- (1) Characteristics of Immune system.
 - (2) Discuss Herd Immunity
- (D) Short note on : (Any 1 of 2) 5
- (1) Discuss in detail Natural and Acquired Immunity.
 - (2) Discuss in detail about structure, functions and properties of immune cells.
- 2 (A) Answer the following questions : 4
- (1) What are Plasma cells ?
 - (2) What is Tumor necrosis factor ?
 - (3) How interferon play role in immune response ?
 - (4) What is leukocyte extravasation ?

- (B) Answer in brief : (Any 1 out of 2) 2
- (1) How memory cells are generated ?
 - (2) What are Co-stimulatory signals ?
- (C) Answer in detail : (Any 1 out of 2) 3
- (1) Discuss briefly Structure and properties of Class I and II MHC.
 - (2) Write about killing mechanism by CTLs.
- (D) Short note on : (Any 1 of 2) 5
- (1) Discuss in detail Complement activation.
 - (2) Discuss in detail about Antigen processing and presentation.
- 3** (A) Answer the following questions : 4
- (1) What are Adjuvants ?
 - (2) What is the effect of papain on Antibody structure ?
 - (3) What is Antigenicity ?
 - (4) What is Polyclonal Antibody ?
- (B) Answer in brief : (Any 1 out of 2) 2
- (1) Give biological activities of IgD and IgE.
 - (2) Differentiate Epitope and Haptens giving two differences.
- (C) Answer in detail : (Any 1 out of 2) 3
- (1) Which are the Factors that influence Immunogenicity ?
 - (2) What is Clonal selection theory ?
- (D) Short note on : (Any 1 of 2) 5
- (1) Discuss in detail Antibody Diversity.
 - (2) Discuss Monoclonal Antibody in detail.
- 4** (A) Answer the following questions : 4
- (1) What are immunosuppressants ?
 - (2) What is immune surveillance ?
 - (3) What is inflammatory bowel disease ?
 - (4) What is Wiscott-Aldrich syndrome ?

- (B) Answer in brief : (Any 1 out of 2) 2
- (1) What is Graft Versus Host rejection ?
 - (2) Give two remedies to stop graft rejection.
- (C) Answer in detail : (Any 1 out of 2) 3
- (1) Explain tumor antigens in detail?
 - (2) What are the reasons for auto immune disease ?
- (D) Short note on : (Any 1 of 2) 5
- (1) Write in detail about Hypersensitivity.
 - (2) Elaborate what are Immunodeficiency diseases ?
- 5 (A) Answer the following questions : 4
- (1) What is pathogenicity ?
 - (2) What is pseudo membranous colitis ?
 - (3) *S. mutans* is responsible for which disease ?
 - (4) What is the full form of H and N in H 1 N 1 Virus ?
- (B) Answer in brief : (Any 1 out of 2) 2
- (1) What is the role of plasmid in Infection ?
 - (2) How endotoxins help bacteria to invade host cell ?
- (C) Answer in detail : (Any 1 out of 2) 3
- (1) Write about mechanism of Exotoxins.
 - (2) Discuss role of Enzymes in infection.
- (D) Short note on : (Any 1 of 2) 5
- (1) Write in detail about Normal Flora of Gastrointestinal tract of Human Host.
 - (2) Discuss various types of Natural Resistance.
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