



RX-003-001631

Seat No. _____

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

March - 2019

Microbiology : Paper - 601

(Immunology & Clinical Microbiology)

(Old Course)

Faculty Code : 003

Subject Code : 001631

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

[Total Marks : 70

- Instructions :** (1) All Questions are compulsory.
(2) Draw Diagram wherever necessary.
(3) Figure at the right indicate total marks of the Question.

1 Answer the following : 20

- (1) What is Acquired immunity?
- (2) _____ is the part of an antigen that is recognized by the immune system, specifically by antibodies, B cells, or T cells.
- (3) What do you mean by Adjuvant ?
- (4) Enlist primary organs of immune system.
- (5) Give Examples of Antigen Presenting Cells.
- (6) _____ is a type of immunoglobulin that is secreted in milk and is also the most prevalent Immunoglobulin in secretions. (e.g. tears, saliva and mucous).
- (7) What do you mean by monoclonal antibody?
- (8) Write the types of heavy chains in the structure of Immunoglobulins.
- (9) Define Allergy.
- (10) _____ is the system of immune responses of an organism against its own healthy cells and tissues.

- (11) What do you mean by TSTA and TATA?
- (12) Enlist four Primary Immunodeficiency Diseases.
- (13) What do you mean by infection?
- (14) _____ is the causative agent of Malaria.
- (15) What do you mean by subunit vaccine?
- (16) Give full form of BCG and MMR.
- (17) What is serology?
- (18) _____ is the process by which blood changes from a liquid to a gel, forming a blood clot.
- (19) Write two applications of Western Blot.
- (20) Define Precipitation.

2 (a) Answer the following : (any **three**) **6**

- (1) Define carrier & hapten.
- (2) What is MHC?
- (3) Draw a labeled structure of an immunoglobulin.
- (4) Differentiate Plasma and Serum.
- (5) Enlist methods of Specimen Collection.
- (6) What is hematopoiesis?

(b) Answer the following : (any **three**) **9**

- (1) Discuss Immunogenicity versus Antigenicity.
- (2) What is blood? Give components of blood.
- (3) Write in brief about immunoelectrophoresis.
- (4) Host Versus Graft Rejection.
- (5) Discuss possible reasons for onset of autoimmune diseases.
- (6) Give an account on SMAA & ISCOM.

(c) Answer the following : (any **two**) **10**

- (1) Discuss in detail types of Immunity
- (2) Classes of Immunoglobulins.
- (3) Type I hypersensitivity.
- (4) Mycobacterium.
- (5) Blood coagulation

3 (a) Answer the following : (any **three**) **6**

- (1) Enlist Differences between primary & secondary immune response.
- (2) Define antigen.
- (3) SCID
- (4) Give two examples of Type II hypersensitivity.
- (5) Define sporadic diseases.
- (6) Define agglutination.

(b) Answer the following : (any **three**) **9**

- (1) Discuss Antigen processing & presentation.
- (2) Explain Antibody diversity.
- (3) Discuss Rapid Methods of Identification of microbes from clinical specimen.
- (4) Differences between immediate & delayed hypersensitivity.
- (5) Normal Flora of Oral Cavity
- (6) Radioimmunoassay.

(c) Answer the following : (any **two**)

10

- (1) Discuss Cells of immune system
 - (2) Monoclonal Antibodies
 - (3) Primary immunodeficiency diseases
 - (4) Vaccines
 - (5) ELISA
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