

[23/A-17]

SEAT No. _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY

Vallabh Vidyanagar

T. Y. B.Sc. (V Semester) Examination

WEDNESDAY, APRIL 10, 2019 Time: 10:00 a.m. to 1:00 p.m.

US05CMIC04(MICROBIOLOGY) IMMUNOLOGY

10/04/2019, Wednesday

Maximum Marks: 70

Q.1. Each question below gives a multiple choice of answers. Choose the most [10] appropriate one.

- 1 An antigen presentation mechanism is performed by _____.
(a) Dendritic Cells (b) Erythrocytes
(c) Basophils (d) Thrombocytes
- 2 In a classical complement pathway _____ is considered as C3 Convertase.
(a) C3bBb (b) C5b678
(c) C4b2a (d) C1qrs
- 3 Kallikrein cleaves the peptide to release _____.
(a) Bradykinin (b) Selectin
(c) Histamine (d) Lectins
- 4 In T-dependent antigen triggering _____ is required for the activation of B- cells
(a) TH (b) CTL
(c) APC (d) Monocyte
- 5 _____ Chain of class I MHC molecules is divided into three functional domains.
(a) Delta (b) Beta
(c) Alpha (d) B2 microglobulin
- 6 In antibody structures variation in heavy chains are called as _____.
(a) Allotype (b) Isotype
(c) Idiotype (d) None of these
- 7 _____ cells are responsible for the immune system rapid secondary response to the same antigen
(a) Plasma (b) Memory
(c) Phagocytic (d) APC
- 8 Single diffusion in one dimension precipitation reaction is explained by _____ test.
(a) Oakley- Fulthroe (b) Ouchterlony
(c) Oudin (d) RID
- 9 Lens antigens of the eye are _____ antigen.
(a) Cross reacting (b) Neo antigens
(c) Sequestered (d) Heterophile
- 10 Auto antibodies directed against platelets occur in _____.
(a) Autoimmune thrombocytopenia (b) Autoimmune Leucopenia
(c) Hashimoto's Disease (d) Pernicious Anaemia

(1)

(P.T.O.)

Q. 2 Short Questions (Attempt any TEN)

[20]

- 1 Differentiate between Acute inflammation and Chronic Inflammation.
- 2 Explain the term Cytokine give one example.
- 3 Define Complement and enlist the various pathways for its activation.
- 4 Differentiate between Humoral and Cell Mediated Immunity
- 5 Mention about the signals required for B- Cell activation
- 6 What is MHC and what is its significance.
- 7 What is the difference between Primary and Secondary Antibody response?
- 8 What are Monoclonal antibodies and why are they important.
- 9 What is the difference between precipitation and agglutination reaction.
- 10 What are tumor antigens? Enlist its properties.
- 11 How are autoimmune disease classified and give an example of each category.
- 12 How is RF detected for the diagnosis of Rheumatoid Arthritis?

Q. 3 [A] Explain Acute phase proteins

[05]

[B] Write a note on cytokines

[05]

OR

Q.3 [A] Describe the secondary lymphoid organs involved in immunity

[06]

[B] Explain Alternate complement Pathway

[04]

Q. 4 What is B-cell? Explain the process of activation of B-cell by T-dependent antigens **[10]**

OR

Q.4. [A] What is antigen and what are its properties?

[04]

[B] Write a note on MHC molecules

[06]

Q. 5 With the help of neat labeled diagram Explain the basic structure of Immunoglobulin and write a note on IgG **[10]**

OR

Q.5. [A] Explain what are antigen –antibody reactions and explain the general features of Ag-Ab reactions **[06]**

[B] Write a note on Lattice hypothesis

[04]

Q. 6 What is hypersensitivity and explain Anaphylaxis in detail. **[10]**

OR

Q.6. Write a detailed note on transplantation Immunology **[10]**

— X —
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