

2

[58/A-15]

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SARDAR PATEL UNIVERSITY
5th SEMESTER - B.Sc. October - 2018.

USO5CMIC04
Immunology

Date : 29/10/2018
Time : 10:00 a.m. to 1:00 p.m.

Day: Monday.
Total marks :70

Q.1 Select the correct answer for each question from the options given below. 10

- 1 The cells which originates, differentiates and matures in bone marrow is
 (a) Neutrophiles. (b) Eosinophiles.
 (c) T-cell. (d) B-cell.
- 2 _____ cells secretes vasoactive mediators during allergic response.
 (a) Macrophages. (b) Neutrophiles.
 (c) Basophiles. (d) None of the these.
- 3 Which of the following is an example of cytokines?
 (a) Monokines. (b) Lymphokines.
 (c) Interleukins. (d) All of the above.
- 4 _____ antigens on the surface of cells of human tissue/organs that plays important role in graft rejection.
 (a) CD. (b) Blood group antigen.
 (c) MHC. (d) None of the these.
- 5 The antigenicity of molecules depends on _____
 (a) Size. (b) Chemical complexity.
 (c) Degree of foreignness. (d) All of the above.
- 6 A single immunoglobulin molecules contains _____
 (a) 1light chain, 1 heavy chain. (b) 2light chain, 2 heavy chain.
 (c) 1light chain, 2 heavy chain. (d) 2light chain, 1 heavy chain.
- 7 In human serum/plasma which of the following immunoglobulins are found in highest concentration?
 (a) IgA. (b) IgG.
 (c) IgM. (d) IgE.
- 8 Hypersensitivity type-II reaction is mediated by _____ antibody.
 (a) IgA. (b) IgG.
 (c) IgM. (d) IgE.
- 9 X-linked agammaglobulinemia disease occurs because of deficiency of _____ defect.
 (a) T-cell. (b) B-cell.
 (c) Combined immunodeficiency. (d) None of these.
- 10 Which antigen are responsible for auto-immune disease?
 (a) Neoantigen. (b) Sequestered antigen.
 (c) Cross- reacting antigen. (d) All of the these.

1

(P.T.O)

- Q.2 Give short answers to the following questions. (Answer any ten) 20**
- 1 Give examples of primary and secondary immune organs/tissues.
 - 2 Enlist different pathways of complement system along with few example of serum proteins.
 - 3 Enlist role of Mast cells in immune response.
 - 4 Define:- Avidity and haptens.
 - 5 What is cell mediated immunity?
 - 6 Write role of interleukin-2 in specific immune response.
 - 7 What are Monoclonal antibody? Also write its importance.
 - 8 Write few features of antigen-antibody reactions.
 - 9 What is lattice hypothesis?
 - 10 What is tumour antigen? Give its example.
 - 11 What is Serum sickness and to which hypersensitivity reaction it belongs to?
 - 12 What are immunodeficiency disease? Enlist its type.
- Q.3 What is phagocytosis? Explain its mechanism in detail. 10**
- OR**
- Q.3 What is inflammation? Write about its role. 10**
- Q.4 Write in detail about types of T-cells and its activation. 10**
- OR**
- Q.4 Write Short note on:--**
- (a) B-cell activation. 05
 - (b) Cluster of differentiation of Molecules. 05
- Q.5 Write Short note on:--**
- (a) Clonal selection theory. 07
 - (b) Immunoglobulin M and its structures. 03
- OR**
- Q.5 What is agglutination? Write in detail about its applications. 10**
- Q.6 Write Short note on:--**
- (a) Mechanism of Type-I hypersensitivity reaction. 05
 - (b) SLE disease. 05
- OR**
- Q.6 Write Short note on:--**
- (a) Graft/host reaction. 06
 - (b) Disorders of phagocytosis. 04

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2