

[79/A21]

Seat No. \_\_\_\_\_

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SARDAR PATEL UNIVERSITY  
5<sup>TH</sup> SEMESTER - B.Sc.  
November - 2019.  
MICROBIOLOGY, USO5CMIC04  
Immunology.

Date : 18/11/2019, Monday.  
Time : 10-00 am to 1-00 pm.

Total marks : 70

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

- 1 \_\_\_\_\_ recognizes specific pathogen associated molecular patterns (PAMP's) on microorganisms.  
(a) Mast cells. (b) Dendritic cells.  
(c) Monocytes. (d) None of these.
- 2 Which of the following is an example of Acute phase proteins?  
(a) C-reactive proteins. (b) Mannose-binding lectins.  
(c) Surfactant proteins A. (d) All of these.
- 3 Which of the following is an example of secondary lymphoid organ ?  
(a) Thymus. (b) Bone marrow.  
(c) Spleen. (d) None of the above.
- 4 Parameters affecting antigenicity of molecules depends upon \_\_\_\_\_.  
(a) Size of molecules. (b) Chemical nature of molecules.  
(c) Degree of foreignness. (d) All of these.
- 5 Antigens are made up of \_\_\_\_\_.  
(a) Proteins. (b) Nucleoprotein.  
(c) Polysaccharides. (d) All of these.
- 6 Blood grouping and cross matching tests are based on basis of \_\_\_\_\_.  
(a) Agglutination. (b) Precipitation.  
(c) Flocculation. (d) None of these.
- 7 Which immunoglobulin is the principal one found in mucous secretions ?  
(a) IgG. (b) IgA  
(c) IgM. (d) None of these.
- 8 Nezelof, s syndrome occurs due to defect of \_\_\_\_\_.  
(a) T-cells. (b) B-cells  
(c) Combined immunodeficiencies. (d) None of these.
- 9 \_\_\_\_\_ reaction is an example of cytolytic/cytotoxic reaction mediated by IgG or IgA.  
(a) Type-I hypersensitivity. (b) Type-II hypersensitivity.  
(c) Type-III hypersensitivity. (d) Type-IV hypersensitivity.
- 10 Auto-immune disease occurs due to \_\_\_\_\_ antigens.  
(a) Sequestered. (b) Cross-reacting.  
(c) Neo. (d) All of the above.

①

(P.T.O)

**Q.2 Give short answers to the following questions. ( Answer any ten) 20**

- 1 What are mast cell ? Enlist its role.
- 2 What is opsonization?
- 3 Give examples of different types of cytokines.
- 4 Define:- Valence of antigen, Haptens.
- 5 What are MHC's ? Enlist its types.
- 6 What are CD molecules?
- 7 What are Monoclonal antibodies?
- 8 Define:- Allotypes. and Avidity.
- 9 Enlist factors affecting Antigen-antibody reactions.
- 10 What is contact dermatitis?
- 11 What are tumour antigen ? Give its examples.
- 12 What is disorders of complement ? Enlist its examples.

Answer following long questions:-

**Q.3 What are Complement proteins? Write in detail about Alternative complement pathway. 10**

**OR**

**Q.3 Explain the following:- 06**  
A Mechanism of phagocytosis. 04  
B Chronic inflammation.

**Q.4 Write Short note on:-- 06**  
A Types of T-cells. 04  
B Clonal selection theory.

**OR**

**Q.4 Write in detail about B-cell receptors and its activation. 10**

**Q.5 Define:- Agglutination. Also write about its applications. 10**

**OR**

**Q.5 Write Short note on:-- 07**  
A Structure of immunoglobulins. 03  
B Primary and secondary immune response.

**Q.6 Write Short note on:-- 06**  
A Type-1 hypersensitivity reaction. 04  
B Rheumatoid arthritis.

**OR**

**Q.6 Write Short note on:-- 05**  
A Allograft reaction. 05  
B Types of immunodeficiency disease.