

[35/A-13]

SEAT No. _____

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SC

SARDAR PATEL UNIVERSITY
T. Y. B.Sc. Biochemistry (SEMESTER - VI)
BIOCHEMISTRY: US06CBCH05
IMMUNOLOGY

Date: 04/04/18 (Wednesday)

Time: 10:00 AM to 01:00 PM

TOTAL MARKS: 70

Q.1 Multiple Choice questions : (1 Mark each)

10

1. First line of defence include
 - a. Skin
 - b. Lysozyme Secretion
 - c. Mucus
 - d. All of these
2. What type of immunoglobulin binds to mast cells during an allergic reaction?
 - a. IgA
 - b. IgD
 - c. IgE
 - d. IgG
3. All of the following are categorised as secondary lymphoid organs except
 - a. Lymph nodes
 - b. Thymus
 - c. Spleen
 - d. Sub epithelial collections of lymphocyte
4. What class of MHC receptors is found on the surface of all nucleated cells?
 - a. Class I MHC
 - b. Class III MHC
 - c. Class II MHC
 - d. All of above
5. T helper cell mediated hypersensitivity is
 - a. Type I hypersensitivity
 - b. Type II hypersensitivity
 - c. Type II hypersensitivity
 - d. Type IV hypersensitivity
6. The graft taken from a cadaver is _____
 - a. Auto graft
 - b. Allograft
 - c. Isograft
 - d. Xenograft
7. What antibody is a significant component of the mucous and serous secretions of the salivary glands?
 - a. IgA
 - b. IgD
 - c. IgE
 - d. IgG
8. B and T cells are produced by stem cells that are formed in:
 - a. Bone marrow
 - b. The liver
 - c. The circulatory system
 - d. The spleen
9. Which of the following complement is not involved in alternative pathway?
 - a. C1
 - b. Factor B
 - c. C3
 - d. Factor D
10. In agglutination reactions, the antigen is a _____ in precipitation reactions, the antigen is a _____
 - a. whole cell/soluble molecule
 - b. Protein/Antibody
 - c. Soluble molecule/whole cell
 - d. Protein/carbohydrates

(1)

(P.T.O.)

Q.2 Answer in very short (Any Ten)

20

1. What are NK cell? Give its function.
2. Differentiate the Innate and adaptive immunity.
3. List the types of T-cell and its function.
4. Define following terms: a. Allograft b. Isograft
5. What is MHC? Differentiate MHC class I and MHC class II.
6. Give a brief note on : Tumor Antigen
7. Explain the function of dendritic cell
8. Give a brief note on : Isotypes
9. Explain: Why Ig M is more efficient to neutralize viral infection?
10. Write down the procedure and principle of sandwich ELISA.
11. List out the four basic properties of antigen.
12. What is complement? Write down the basic function of complement.

- Q.3 a) Explain the immunological role of B-lymphocytes and T-Lymphocytes. [5]
a) List various secondary lymphoid organs. Explain any one in detail. [5]

OR

- Q.3 a) Explain the biochemical events of classical pathway for complement activation pathway [5]
b) Explain the anatomical barrier (First Line of defence) in Innate Immunity. [5]

- Q.4 a) Explain - "Antibodies are Heterodimers" [5]
a) Explain in detail: AIDS [5]

OR

- Q.4 a) What do you mean precipitation reaction? Discuss various types of precipitation in immunology. [5]
a) Give an account on immunological role of IgG. [5]

- Q.5 a) Give the importance of MHC class I & II. Explain the structure of MHC class -I molecules. [5]
a) Write in detail about immune response in malignancy. [5]

OR

- Q.5 Write a note on: a) Allograft reaction [5]
b) Classification of transplantation [5]

- Q.6 Define Vaccine. Explain the routes of administration and time schedule of vaccination. [10]

OR

- Q.6 Describe the mechanism of Type I and Type II hypersensitivity. [10]