

[63 & A-48]

SARDAR PATEL UNIVERSITY
B.Sc. Semester – V Examination
April – 2018
Microbiology - US05CMIC04
Immunology

Monday – 12.04.2018

Time : 2.00 pm to 5.00 pm

Total Marks: 70

Q.1. Select the most appropriate answer:

(10)

1) Macrophages originate from:

- (a) Monocytes (b) Lymphocytes
(c) Platelets (d) Erythrocytes

2) Following is not a primary lymphoid organ:

- (a) Spleen (b) Lymph Node
(c) Both (a) & (b) (d) Thymus

3) The recognition molecule that triggers Classical Complement pathway is:

- (a) C₁ Component (b) C₂ Component
(c) C₅ Convertase (d) Mannose binding protein

4) Cell surface receptor for HIV is:

- (a) CD₄ (b) CD₈
(c) CD₃₈ (d) CD₄₈

5) Immune response can be improved by use of:

- (a) Hapten (b) Adjuvant
(c) Isotope (d) None of these

6) J chain is present in:

- (a) IgG (b) IgE
(c) IgM (d) IgD

7) Monoclonal antibodies were first produced by:

- (a) Hybridomas (b) Diclonal antibodies
(c) Polyclonal antibodies (d) None of these

8) Combinatorial joining of gene segments during B cell maturation leads to:

- (a) Diversity of Antibodies (b) Immunological Tolerance
(c) Immunodeficiency (d) Clonal selection

9) Autoimmune Thrombocytopenia involves Autoantibodies against::

- (a) Platelets (b) WBC
(c) RBC (d) None of these

10) Severe Combined Immunodeficiency involves defects of:

- (a) T cell (b) B cell
(c) B & T cells (d) None

P.T.O

Q.2. Answer in short: (Any 10) (20)

- 1) Explain the role of Mast cells in immune response.
- 2) Describe the properties of Complement.
- 3) What is opsonization?
- 4) What is Cell mediated immunity?
- 5) What is the role of Interleukin-2 in specific immune response?
- 6) What is Antigen presentation? Name one Antigen Presenting Cell.
- 7) Explain the term Passive agglutination.
- 8) Write the significance of Clonal Selection Theory.
- 9) What is Lattice Hypothesis?
- 10) Explain the significance of Immunotherapy in Cancer.
- 11) What is Type IV Hypersensitivity?
- 12) What is Myasthenia Gravis?

Q.3. Write in detail on: Acute & Chronic Inflammation. (10)

OR

Q.3. Explain the following:

- (A) killing Mechanism in Phagocytosis. (06)
- (B) Alternative Pathway of Complement. (04)

Q.4. Write an Essay on: B Cell Biology (10)

OR

Q.4. Write notes on:

- (A) T Cell Receptor & Types of T cell. (07)
- (B) Recognition of foreignness (03)

Q.5. Explain the Basic Structure of Immunoglobulin Molecule & Write on the structure & functions of IgM molecule. (10)

OR

Q.5. Write notes on:

- (A) Diversity of Antibodies. (05)
- (B) Primary & Secondary antibody response. (05)

Q.6. Write an Essay on: Transplantation Immunology. (10)

OR

Q.6. Write an Essay on: Autoimmunity. (10)

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