

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot
Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION NOVEMBER – 2017

B.Voc. Medical Laboratory and Molecular Diagnostic Technology

MLMDT 3.1 - IMMUNOLOGY AND SEROLOGY

Duration of Exam – 2.30 hrs

Semester – III

Max. Marks – 70

Que.1 Answer the following Questions

[20]

1. Define Hapten.
2. Write any one difference between Primary and Secondary immune response.
3. Define Immunogen
4. In which organ are Red pulp and White pulp found?
5. MHC I can present what length peptide?
6. Arrange the following antibodies according to their affinity for Fc receptors on Macrophages: IgG1, IgG2, IgG3, IgG4.
7. What is an idiotype?
8. Which antibody is found in abundant amounts in secretions?
9. Which antibody can readily activate complement system?
10. What is the function of HLA DM
11. Name any two Professional antigen presenting cells
12. Which type of Hypersensitivity reaction is involved in allergies?
13. Myasthenia gravis is the prototype autoimmune disease mediated by _____ antibodies.
14. Which antibodies are involved in type I Hypersensitivity reactions?
15. Give any one example of fluorescent dye.
16. Define precipitin?
17. What is the use of Horse-radish peroxidase in ELISA?
18. Define Vaccine.
19. Which type of immunization must be provided in case of snake bite?
20. Is **Ouchterlony** double diffusion agglutination depended technique? T/F

Que. 2 (A) Answer the following (Any Three)

[06]

1. Mention the granular cells involved in immunity along with their function.
2. Write four differences between MHC I and II
3. Mention the functions of IgG
4. Define Autoimmune disease. Mention any two reasons due to which autoimmune disease may occur.
5. Write in brief about Hypersensitivity type I reactions.
6. Describe physical barriers of Innate immunity.

Que. 2 (B) Answer the following (Any Three)

[09]

1. Draw well labelled structure of MHC Class I and II
2. Define the following: Adjuvants, Haptens and epitope.
3. Write a note on Lymph node and its function
4. Write brief note on IgM.
5. Write a brief note on Hashimoto thyroiditis.
6. Describe briefly about rheumatoid arthritis.

Que. 2 (C) Answer the following (Any Two)

[10]

1. Describe in detail about Grave's disease.
2. Write a brief note on Hypersensitivity reactions.
3. Write a note on antigenic determinants on antibody.
4. Describe along with diagram the structure of Antibody.
5. Describe structure and function of Thymus.

Que. 3 (A) Answer the following (Any Three)

[06]

1. What is fluorescence? Write its uses.
2. Describe any one precipitation reaction in brief.
3. Define DNA vaccine and write its benefits.
4. What is ERAP? Write its functions.
5. What is proteasome complex and what is its importance in protein degradation?
6. Define positive selection of T cell maturation. What is its importance?

Que. 3 (B) Answer the following (Any Three)

[09]

1. Describe in brief the blood grouping reactions.
2. What is Rocket electrophoresis? Write its Principle and procedure of operation.
3. Write a note on Toxoid vaccine
4. Write a note on bacterial polysaccharide vaccine.
5. Describe killing mechanism of CTL
6. Differentiate between Lectin pathway and Alternate pathway of complement activation.

Que. 3 (C) Answer the following (Any Two)

[10]

1. Write a note on Active and passive immunization.
2. Write a note on Classical pathway of complement system.
3. Describe Endocytic processing of exogenous antigen.
4. Write a brief note on ELISA.
5. Write a note on Live attenuated vaccine along with its advantages and disadvantages.