

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc- Honours (Microbiology) (Sem.-5)

IMMUNOLOGY

Subject Code : BSMB-501-20

M.Code : 92507

Date of Examination : 12-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly :

- a) Discuss GALT.
- b) Define ELISA.
- c) Define TCR genes.
- d) What do you mean by B cell generation?
- e) What are the symptoms of hypersensitivity?
- f) Discuss the CALT.
- g) What do you mean by antigens?
- h) What is T-cell maturation?
- i) Definite transplantation.
- j) Mention antibody affinity.

SECTION-B

2. Discuss in detail the basic structure and function of antibodies.
3. Elaborate in detail about major histocompatibility complexes.
4. Describe in detail :
 - a) TCR genes
 - b) T cell receptor complex.
5. Define epitopes. Give a detailed comment.
6. Discuss primary and secondary lymphoid organs and their functions.

SECTION-C

7. **Discuss the following :**
 - a) T-dependent and T-independent antigens.
 - b) Antigen binding sites.
 - c) Pattern recognition receptors.
8. Discuss in detail radioimmunity assay and also justify ELISA.
9. **Comment on :**
 - a) Cytokines: receptors
 - b) Immunodeficiency
 - c) Thymus and lymph node.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.