

Roll No.

Total No. of Questions : 13]

[Total No. of Pages : 02

Paper ID [C2209]

(Please fill this Paper ID in OMR Sheet)

M.Sc. (CMB - 202) (S05) (Sem. - 2nd)

IMMUNOLOGY

Time : 03 Hours

Maximum Marks : 75

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

Section - A

(15 × 2 = 30)

Q1)

- a) Define immunity.
- b) Explain the contribution of the Edward Jenner in immunology.
- c) Explain the active and passive immunity.
- d) Explain the non specific immunity.
- e) What are the various applications of the antigen antibody precipitation reactions?
- f) What do you understand by antibody?
- g) What are the different T cells for killer activity?
- h) What do you understand by haptens?
- i) Differentiate between the opsonization and neutralization
- j) What do you mean by immune suppression? What are its applications?
- k) What are the differentiations of the B cells after the interaction with the antigen? What are their functions?
- l) Classify the different blood groups based on the antigen presents.
- m) What do you understand by vaccine?
- n) What are the applications of the monoclonal antibodies?
- o) What are the forces involved in the antigen antibody interactions.

D-139

P.T.O.

Section - B

(9 × 5 = 45)

- Q2)** Discuss about the different types of acquired immunity a host develops after exposure to the suitable antigen or after transfer of antibodies or lymphocytes from a donor.
- Q3)** Classify the different types of hypersensitivity. Discuss about avidity and affinity measurement.
- Q4)** Discuss about the role of complement system in immune response.
- Q5)** Classify the different types of immunoglobulins. Discuss about the structure of the immunoglobulin G.
- Q6)** Describe the interaction of the cytokines released from the T cells in the proliferation and differentiations of the B cells.
- Q7)** What do you understand by ELISA. Describe the method of ELISA.
- Q8)** What do understand by delayed type hyper sensitivity. Discuss about the reaction in this type of hypersensitivity.
- Q9)** Discuss about the general characteristics of the antigen antibody reactions.
- Q10)** Discuss about the basis of the antibody diversity.
- Q11)** Discuss about the different types and their sources of the antigens.
- Q12)** What are the monoclonal antibodies. Discuss about the applications of the monoclonal antibodies in the diagnosis, therapy and basic research.
- Q13)** Classify the different types of antigen antibody reaction. Discuss about the precipitation technique for the estimation of the antigen antibody reaction.

