

**SEMESTER EXAMINATION-2021**  
**CLASS – M.SC. MICROBIOLOGY-III SEM**  
**PAPER CODE: MMB-C301 (Immunology)**

**Time: 3 hours**

**Max. Marks: 70**

**Min. Pass: 40%**

**Note:** Question Paper is divided into two sections: **A and B**. Attempt both the sections as per given instructions.

**SECTION-A (SHORT ANSWER TYPE QUESTIONS)**

**Instructions:** Answer any five questions in about 150 words each. Each question carries six marks. (5 X 6 = 30 Marks)

- Question-1: What is epitope and paratope?
- Question-2: What is superantigen? Give its example.
- Question-3: What is Affinity and Avidity?
- Question-4: Write short notes on determination of antigenicity.
- Question-5: What is Heterophile antigen?
- Question-6: Give different stages of Serological reaction
- Question-7: Write the procedure of complement fixation test.
- Question-8: What is blocking agent? Give some examples.
- Question-9: Explain competitive ELISA.
- Question-10: What is MAB? How it is produced.

**SECTION-B (LONG ANSWER TYPE QUESTIONS)**

**Instructions:** Answer any FOUR questions in detail. Each question carries 10 marks. (4 X 10 = 40 Marks)

- Question-11: What is inflammation? Explain its mechanism.
- Question-12: What is antibody? Differentiate between types of antibodies.
- Question-13: What is precipitation? Give its mechanism and its application.
- Question-14: What is RIA? Explain the procedure of RIA and how the antigen antibody complex will separate in case of liquid RIA.
- Question-15: What is Hypersensitivity? Give its type.
- Question-16: What is titre? How titre is determined in case of typhoid by slide as well as tube dilution method.
- Question-17: Explain the structure and function of MHC.
- Question-18: Write an essay on Host parasite interaction?