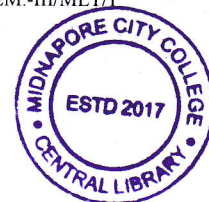


**PG (CBCS)**  
**M.Sc. Semester- III Examination, 2023**  
**MEDICAL LABORATORY TECHNOLOGY**  
**PAPER: MLT 302**  
**(IMMUNOLOGY)**

**Full Marks: 40****Time: 2 Hours**

The figures in the right-hand margin indicate full marks.  
 Candidates are required to give their answers in their own words as far as practicable.

**GROUP-A**

1. Answer any **FOUR** of the following questions: 2×4=8
- a) Explain the concept of “self MHC restrictions”. 2
  - b) Write the functions of hinge part of Ig molecule. 2
  - c) Name the auto-antigens and auto-antibodies found in autoimmune thyroiditis. 2
  - d) Indicate the components of “MAC”. 2
  - e) What do you mean by “Ig-superfamily”? 2
  - f) What is congenital type of Immunodeficiency? 2

**GROUP-B**

2. Answer any **FOUR** of the following questions: 4×4=16
- a) Experimentally prove that T-cells are involved in allograft rejection. 4
  - b) Classify the functions of antibody based on their use in diagnostics techniques. 4
  - c) Briefly describe the TLR-MyD88 signaling pathway. 4
  - d) What is adjuvant? “Immune memory is an important feature of vaccine-induced protection”- explain the statement. 2+2
  - e) When and how does blood transfusion induce hypersensitivity reaction? 2
  - f) Why is immunosuppressive therapy required? Briefly describe the different strategy of immunosuppressive therapy. 1+3

**GROUP-C**

3. Answer any **TWO** of the following questions: 8×2=16
- a) Briefly describe the hybridoma technology for the monoclonal antibody preparation. 8
  - b) Classify T-cells. Mention the effector responses of these different types of T-cells. 2+6
  - c) What is prozone effect? What do you mean by cross reactivity? Write the principle of application of competitive ELISA. 2+2+6
  - d) State the classical pathway of complement activation. 8