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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 przozone 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