FACULTY OF SCIENCE
M. Sc. III – Semester Examination, January 2018

Subject : Biochemistry
Paper – II
Immunology and Immunotechnology

Time : 3 Hours
Max. Marks: 80

Note: Answer all questions from Part–A and Part–B. Each question carries 4 marks in Part–A and 12 marks in Part – B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

1. Brief history of Immunology
2. Neonatal immunity
3. Functions of MHC proteins
4. Immune response to tumours
5. Microbial evasion of immune response
6. Coombs classification of hypersensitivity
7. Polyclonal and monoclonal antibodies
8. Western blotting and FACs techniques

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

9. (a) Discuss the theories of antibody fermentation and add a note on genes involved in antibody production. OR
   (b) Write note on:
       (i) Classification of immunoglobulins
       (ii) Types of adjuvants and their applications

10. (a) Discuss the kinetics and regulations of immune response. OR
    (b) Give an account of complement system.

11. (a) Write note on types of hypersensitivity and explain the mechanism of activation. OR
    (b) Discuss about:
       (i) Immunodeficiency disorders
       (ii) Autoimmune diseases

12. (a) Discuss the Hybridoma technology and its applications. OR
    (b) Write note on:
       (i) ELISA
       (ii) Antigen-Antibody interactions and visualization

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