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30

Class – M.Sc. (2<sup>nd</sup>) Botany

Subject – Immunology

Paper – BOT C-725

Time Allowed : 3 Hours

Maximum Marks : 50

**SECTION-A**

**Question 1 is compulsory, carrying Eight marks.**

1. Explain briefly the following :

- (i) Phagocytes
- (ii) Hinge region.
- (iii) Cross reactivity
- (iv) B-cells
- (v) Mitogens
- (vi) Allotypes
- (vii) Natural killer cells
- (viii) Immunoglobulin (8 × 1 = 8)

**SECTION-B**

**Attempt any seven questions from Section-B.  
Each question carrying 3 marks.**

2. Write a note on bifunctional property of antibodies.
3. What are monoclonal antibodies.
4. Give a historical perspective of immune system.
5. What do you know about antigen recognition by cells of innate immunity.
6. Describe the prerequisites of immunogenicity.
7. Describe Primary and Secondary lymphoid tissues.

8. Give an account of general structure of Antibody.
9. Describe the following terms—  
(a) Epitope (b) Hapten (c) Avidity.
10. Describe the antigen antibody interaction.
11. Explain the activators of lymphocytes. (7 × 3 = 21)

### SECTION-C

**Attempt any three questions. Each question carrying 7 marks.**

12. Give the classification of Antibodies.
13. What are immuno deficiencies? Give a detail account of secondary immune deficiency disorder.
14. Discuss the role of immune system in health.
15. What is major histocompatibility complex? Explain.
16. Describe in detail the cells of innate immunity. (3 × 7 = 21)

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