

**Exam. Code : 210004**

**Subject Code : 8455**

**M.Sc. (Botany) Semester—IV**

**BOTC-725 : IMMUNOLOGY**

Time Allowed—3 Hours] [Maximum Marks—50

**Note :—** Section A is compulsory (EIGHT questions, 1 mark each).

**Section B :** Attempt SEVEN questions. The answer should not exceed 2 pages (SEVEN questions, 3 marks).

**Section C :** Attempt any THREE questions. The answer should not exceed 4 pages (THREE questions, 7 marks each).

**SECTION— A**

1. Give brief account of the following .

- (a) Attenuation
- (b) Complement
- (c) Hapten
- (d) Epitope
- (e) Paratope
- (f) Opsonization
- (g) Basophils
- (h) MHC.

8×1=8

**SECTION—B**

- 2. What are Primary Immunodeficiency disorder ?
- 3. Give the characteristics features of innate immunity.
- 4. How immunogenicity can be enhanced ?
- 5. How antigens are recognized by cells ?
- 6. Explain cross-reactivity.
- 7. What are allotypes ?
- 8. Give the functions of macrophages.
- 9. What is a secondary immune response ?
- 10. How AIDS affects the immune response ?
- 11. What are the functions of Thymus ? 7×3=21

**SECTION— C**

- 12. Describe the properties of antigens which determine immunogenicity.
- 13. Classify antibodies and give their biological properties.
- 14. How body responds for adaptive immunity ?
- 15. Give the structure and functions of secondary lymphoid organs.
- 16. How immune system is responsible for the infectious diseases control ? 3×7=21