

(i) Printed Pages : 2

Roll No. ....

(ii) Questions : 9

Sub. Code :

0	9	7	7
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Exam. Code :

0	0	3	6
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B.Sc. (Hons.) Biotechnology 4<sup>th</sup> Semester  
(2053)

IMMUNOLOGY-II

Paper : BIOT-401-T

Time Allowed : Three Hours]

[Maximum Marks : 67

**Note :—** Attempt five questions in all. Question No. 1 is compulsory.  
Select one question from each Unit.

1. (a) What is leucocyte trafficking ? 2
- (b) What are polyclonal antibodies ? 2
- (c) What is the principle of ELISA ? 3
- (d) What is antibody affinity ? 2
- (e) Define active immunization. 2
- (f) What is an adjuvant ? 2
- (g) What are polysaccharide vaccines ? 2

#### UNIT—I

2. (a) Discuss the function of Ig superfamily in cell adhesion. 7
- (b) Discuss role of cell surface proteins in immunological response. 6

3. (a) Discuss the process of Alternative Complement pathway. 7  
(b) Describe the regulation of complement system. 6

### UNIT—II

4. Discuss the hybridoma technique to produce monoclonal antibodies. 13
5. (a) Discuss principle, types and procedure for immunodiffusion. 8  
(b) Discuss the basis and applications of RIA. 5

### UNIT—III

6. (a) Describe the role of IgG in type I hypersensitivity. 7  
(b) Discuss the causes and implications of type IV hypersensitivity. 6
7. (a) Discuss the causes and symptoms of Myasthenia gravis. 6  
(b) Describe the features of Insulin dependent Diabetes mellitus. 7

### UNIT—IV

8. (a) Discuss the clinical manifestations of graft rejection. 7  
(b) Explain the role of immunological tolerance in transplantation. 6
9. (a) Discuss the principle and advantages of DNA vaccines. 6  
(b) Discuss the basis and impact of immunization programs. 7