

Exam.Code:0044  
Sub. Code: 1017

2071  
B.Sc. (Hons) Bio-Informatics  
Sixth Semester  
BIN-6003: Immunology

Time allowed: 3 Hours

Max. Marks: 60

**NOTE:** Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer briefly:-

- a) Heavy chain
- b) CDR
- c) Idiotypic
- d)  $\beta_2$  microglobulin
- e) DNA vaccine
- f) HIV
- g) Peptide binding pocket of MHC - II
- h) Helper T cells.

(8x1½)

**UNIT – I**

- II. Write a note on the components of the mammalian immune system. (12)
- III. a) Explain the process of antibody affinity maturation and its significance.  
b) Discuss the generation of immunological memory. (2x6)
- IV. a) Explain in detail the generation of cellular immune response.  
b) Discuss any two reasons by which antibody diversity is generated. (2x6)

**UNIT – II**

- V. a) Write a note on any one organ associated and systemic autoimmune disorder.  
b) Discuss the role of adjuvants in vaccination. (8,4)
- VI. Describe the principle, technique and applications in indirect ELISA. (12)

P.T.O.

(2)

VII. a) Explain the characteristics of the peptides binding of MNC class - I.

b) Write a note on DNA vaccines.

(2x6)

*x-x-x*