Exam.Code:0036
Sub. Code: 0956

1057

B.Sc. (Hons.) Biotechnology

Fourth Semester

BIOT-Sem-IV-I-T: immunology – I

Time allowed: 3 Hours Max. Marks: 67

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

x-x-x

I. Attempt the following:-

a) Adjuvant

b) Allograft

c) αβ T cells

d) What is affinity maturation?

e) Which two antibody molecules are present on a mature B cell surface?

f) Name three APCs.

g) Infectious agent

h) Immunosuppression

i) Tumor vaccine

j) IgD (10x1½)

UNIT – I

II. a) Describe B cell activation and proliferation.

b) Explain the VDJ recombination of Immunoglobulin genes. (7,6)

III. What factors are known to influence generation of antibody diversity? (13)

UNIT – II

IV. a) Explain T cell receptor structure and its role.

b) Describe the T cell selection process in detail. (6,7)

V. a) Discuss the role of Mannose binding proteins in Complement activation.

b) What are the biological consequences of Complement Activation? (6,7)

UNIT – III

VI. a) Explain Delayed Type Hypersensitivity. Give examples.

b) What are the implications of hypersensitivity? (7,6)

P.T.O.

VII. a) Write a note on any systemic autoimmune disease.

b) What is the role of Mast cells and Blood Basophiles in allergy? (7,6)

UNIT – IV

VIII. a) Describe the Clinical manifestations of Graft rejection.

b) Write a note on the Immunosuppressive therapy. (7,6)

IX. a) Differentiate between Live Attenuated and Inactivated vaccine.

b) Write a note on:-

i) Viral Vaccine

ii) Recombinant Vaccine (6,7)

x-x-x