

2014

M.Sc.

3rd Semester Examination

BIOCHEMISTRY

PAPER—BIC-302

Full Marks—40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group—A

1. Answer any five questions from the following : 2×5
- (a) What is clonal selection theory?
 - (b) Define ADCC.
 - (c) Write the function of complement.
 - (d) What is energy?
 - (e) What do you mean by plasticity of T-cell.
 - (f) What are defensin molecules?
 - (g) Differentiate innate & adaptive immunity.
 - (h) Compare between epitope & paratope.

(Turn Over)

Group—D

Answer any two questions from the following : 5X2

2. What are the important properties of immune system. 5
3. Draw the markers present on the surface of T-lymphocytes mentioning their ligand and functions. 5
4. Justify the changes observed in the structure of an antibody molecule after the treatments with beta-mercaptoethanol, pepsin and papain. 5
5. Describe the immunological function of IgE & IgA. 5

Group—C

Answer any two questions from the following : 10X2

6. What is antigen processing? Elucidate the mechanism of the cytosolic pathway and antigen presentation. 3+7
7. What do you mean by DAMP? Write about the role of TLR in innate immune response against microbes. 3+7
8. Define antibody diversity? How the most possible numbers of Ig gene generated? 3+7
9. How monoclonal antibody (MAB) prepared in a laboratory? What are the importance of MAB? 7+3