



Code No. : 9450

FACULTY OF SCIENCE  
M.Sc. IV Semester Examination, May/June 2012  
BIOCHEMISTRY  
Paper – II : Immunology

Time : 3 Hours]

[Max. Marks : 80

SECTION – A

(8×4=32 Marks)

Answer **all** questions.

1. Describe about Toll like receptors.
2. Write about P-nucleotides and N-nucleotides.
3. Comment on ADCC and Super Antigen.
4. What are the secretory antibodies and how are they secreted ?
5. Explain about Scatchard plots. *By the complex*
6. Write about antibody engineering. *MAPS*
7. What is Anaphylactic shock ?
8. Write about Molecular Mimicry antigens.

SECTION – B

(4×12=48 Marks)

9. a) Describe the differences and similarities between antigen-antibody and enzyme-substrate interactions with particular emphasis on catalytic antibodies.  
OR  
b) Write in detail about primary and secondary lymphoid organs and their functions.
10. a) Describe about immunoglobulin gene rearrangement and discuss how can you judge it.  
OR  
b) Write about endogenous and exogenous antigen presentation along with methods of confirmation.



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11. a) Describe the following methods :

- i) Immunofluorescence
- ii) RIA and ELISA
- iii) Western blot
- iv) Immunoprecipitation.

OR

b) Explain with reasons why vaccines are unsuccessful for (i) AIDS, (ii) Malaria (iii) Influenza and (iv) African sleeping sickness.

12. a) Write in detail about graft versus host disease (GVHD).

OR

b) Write about the following :

- i) Auto-antibodies to DNA
- ii) Agonist in Grave's disease
- iii) Auto-reactive T cells to myelin sheath
- iv) Auto-antibodies to RBC antigens.