

**Third Year B.Sc. Medical Microbiology Regular/Supplementary  
Examinations April 2022  
Immunology, Immunochemistry and Serology – I  
(2014 Scheme)**

Time: 3 Hours

Max. Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essay****(2x15=30)**

1. Enumerate properties and types of Antigen- antibody reactions. Describe in detail the definition, types and applications of precipitation reaction
2. Describe the general properties and components of complement system. Discuss about classical complement pathway and regulation of complement activation

**Short Essay****(2x10=20)**

3. Describe Humoral immune response
4. Describe acquired immunity

**Short Answers****(6x5=30)**

5. Immunological tolerance
6. HLA complex
7. Difference between endotoxins and exotoxins
8. Immunoglobulin G
9. B cell maturation
10. Hybridoma technique

**Comment on****(10x2=20)**

11. Adjuvants
12. Opsonisation
13. T cell receptor
14. Passive agglutination
15. Toxoids
16. Give four examples for killed vaccine
17. Antigen presenting cells
18. Murracks lattice hypothesis
19. Immunoglobulin M
20. Adoptive immunity