

**D 71058**

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Name

Reg. No. ....

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION  
NOVEMBER 2014**

(UG-CCSS)

Core Course – Biotechnology

**BT 5B 02 – IMMUNOLOGY AND IMMUNOTECHNOLOGY**

Time : Three Hours

Maximum : 30 Weightage

**I. Objective Type Questions. Answer *all* Questions :**

(a) True *or* False :

1. Type I Diabetes is an HLA – associated auto immune disease.
2. Rheumatoid arthritis is a organ specific auto immune disease.
3. Type I hyper sensitivity is IgE mediated.
4. ADCC is mediated by cytolytic cells called killer cells.
5. Alternative pathway provide a mechanism of specific resistance to infection.
6. Peyer's patches is a gut associated lymphoid tissue.

(b) Name the following :

7. An organ specific auto immune disease.
8. Confirmatory test of HIV.
9. Major Immunoglobulin present in the blood.
10. A primary lymphoid organ.
11. A tumor antigen.
12. A recombinant vaccine.

(12 x  $\frac{1}{4}$  = 3 weightage)

**II. Short Answer Type Questions. Answer all *nine* questions :**

13. Mast cells.
14. Super Antigens.
15. Allotype.
16. Affinity and Avidity.
17. Seratonine.

Turn over

18. TNF.
19. Passive immunization.
20. Active immunity.
21. Adjuvants.

(9 x 1 = 9 weight)

III. Short Essay or Paragraph Questions. Answer any *five* questions :

22. Differentiate innate immunity and adaptive immunity.
23. How complement helps in defense mechanism?
24. How HLA helps in transplantation immunology?
25. Explain monoclonal antibody production.
26. Structure and function of Spleen.
27. Role of Macrophages in body defense.
28. Zone phenomenon in antigen antibody reactions.

(5 x 2 = 10 weight)

IV. Essay Questions. Answer any *two* out of three :

29. Outline different complement activation pathways and its importance in immune reaction.
30. With suitable example, explain hypersensitivity reactions.
31. Discuss humoral immunity and antibody production.

(2 x 4 = 8 weight)