

**C 30378**

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Name.....

Reg. No.....

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017**

(CUCBCSS—UG)

Biotechnology

BTY 5B 08—IMMUNOLOGY AND IMMUNOTECHNOLOGY

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Answer any two out of four questions in about 1500 words.*

*Each question carries 10 marks.*

1. What are the different arms of immunity ?
2. Describe the structure and function of a lymph node.
3. What are monoclonal antibodies ? Write a note on it's uses ?
4. Define the structure of an Antibody ?

(2 × 10 = 20 marks)

**Section B**

*Answer any seven out of fourteen questions in about 750 words.*

*Each question carries 5 marks.*

5. What are epitopes ?
6. Outline the principle and uses of ELISA.
7. What is a humoral Immune response ?
8. How are recombinant vaccines designed ?
9. What is the principle of Blood grouping ?
10. What is DTH ?
11. Structure and function of IgM.
12. Write a note on Grave's disease.
13. Write a note on the structure and function of Neutrophil.
14. What is an APC ? Give examples.
15. Differentiate between primary and secondary immunization.

**Turn over**

16. Define an inflammatory response.
17. What is vaccination ?
18. Tuberculin test.

(7 × 5 = 35 marks)

### Section C

*Answer all questions in about 300 words.  
Each question carries 3 marks.*

19. What are complements ?
20. What is a phagosome ?
21. What are interleukins ?
22. Define affinity and avidity.
23. What are adjuvants ?

(5 × 3 = 15 marks)

### Section D

*Answer all questions in about 200 words.  
Each question carries 2 marks.*

24. What is an immunotoxin.
25. What is cellular degranulation ?
26. Peyer's patches.
27. Ouchterlony DID.
28. Geiger- Muller counter.

(5 × 2 = 10 marks)