

Q.P. Code – 42546

**Fifth Semester B.Sc. Degree Examination,
October/November 2019**

(CBCS Scheme)

Biotechnology

Paper VI – IMMUNOLOGY

Time : 3 Hours]

[Max. Marks : 90

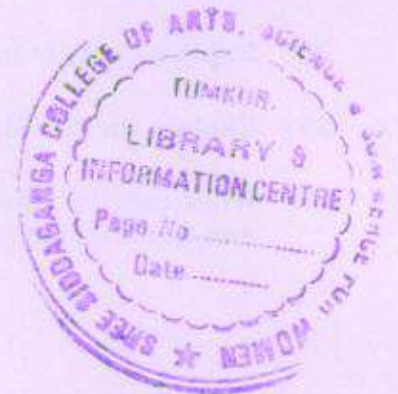
Instructions to Candidates : Draw diagrams wherever necessary.

PART – A

I. Answer any **TEN** of the following :

(10 × 2 = 20)

1. Physical barrier.
2. Edward Jenner.
3. Hapten.
4. Advant.
5. J-chain.
6. Isotype.
7. Flocculation.
8. WIDAL.
9. Macrophage.
10. Bacterial toxin.
11. Immunization.
12. BCG.



PART – B

II. Answer any **SIX** of the following :

(6 × 5 = 30)

13. Granulocytes and Agranulocytes.
14. Functions of immunoglobulins.
15. Types of antigens.

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16. MHC.
17. Ouchterlony double diffusion.
18. Type-II hypersensitivity.
19. Active immunization.
20. Thymus.

PART - C

- III. Answer any **FOUR** of the following : **(4 × 10 = 40)**
21. Explain classical pathway in detail.
 22. What are recombinant vaccines? Explain the production of Hepatitis vaccine.
 23. Write a note on history and scope of immunology.
 24. Explain types of immunoglobulins in detail.
 25. Explain the principle, types and applications of immuno fluroscent techniques.
 26. What are secondary lymphoid organs? Explain and add a note on the structure and functions of spleen.
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