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**M – 1524**

**Reg. No. :** .....

**Name :** .....

**Fifth Semester B.Sc. Degree Examination, December 2021**

**First Degree Programme Under CBCSS**

**Zoology**

**Core Course VII**

**ZO 1544 – IMMUNOLOGY AND MICROBIOLOGY**

**(2014 Admission)**

Time : 3 Hours

Max. Marks : 80

I. Answer the following questions. (In one or two sentences. **1** mark each).

1. NK Cells.
2. Bursa of Fabricius.
3. Interferon.
4. Hapten.
5. Paratope.
6. Rheumatoid arthritis.
7. Prion.
8. Sulphur bacteria.
9. Capsid.
10. Candidiasis.

**(10 × 1 = 10 Marks)**

P.T.O.

II. Answer **any eight** of the following (Not to exceed one paragraph. Each question carries **2** marks).

11. Active immunity.
12. Spleen.
13. Antigen presenting Cells.
14. Zone phenomenon.
15. Cytokines.
16. Immunological tolerance.
17. Live attenuated vaccine.
18. Actinobacteria.
19. Giardia.
20. Halophiles.
21. Hepatitis.
22. Bergey's system of classification.

**(8 × 2 = 16 Marks)**

III. Answer **any six** of the following (Not to exceed 120 words. Each question carries **4** marks).

23. Explain briefly the cells of the immune system.
24. Explain briefly various viral diseases in man.
25. Write notes on AIDS.
26. Explain briefly complement system.
27. Write notes on antigen antibody reactions.

28. Give an account of autoimmune diseases.
29. Write notes on vaccines.
30. Discuss the mechanism of graft rejection.
31. Give a brief account of microbial toxins.

**(6 × 4 = 24 Marks)**

IV. Answer **any two** of the following. Each question carries **15** marks.

32. Describe the structure and classes of Immunoglobins.
33. Describe the structure of a typical bacterium.
34. Write an essay on lymphoid organs.
35. Explain the applications of microbiology in various fields.

**(2 × 15 = 30 Marks)**

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