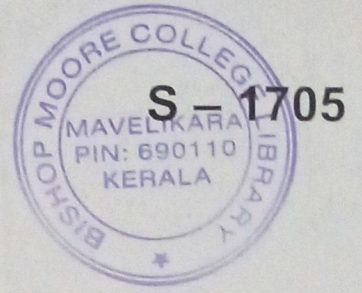


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Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2023

First Degree Programme under CBCSS

Zoology

Core Course

ZO 1543 : IMMUNOLOGY AND MICROBIOLOGY

(2019 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

I. Answer **all** the questions (Each carries **1** mark).

1. Louis Pasteur.
2. Innate Immunity.
3. Bursa of Fabricius.
4. Opsonisation.
5. M H C.
6. DNA Vaccine.
7. Graft rejection.
8. Viroids.
9. Rhizobium.
10. Aspergillosis.

(10 × 1 = 10 Marks)

P.T.O.

- II. Answer any **eight** of the following (Not to exceed **one** paragraph. Each carries **2** marks)
11. Humoral immunity.
 12. Plasma cell.
 13. Dendritic cell.
 14. Epitopes.
 15. Comment on complement fixation.
 16. Describe any two autoimmune diseases.
 17. Allergy.
 18. Methanoarchaea.
 19. Explain the structure of typical bacteria.
 20. Comment on oil eating microbes.
 21. Explain the symptoms of hepatitis.
 22. Give the details of any two bacterial diseases in man.

(8 × 2 = 16 Marks)

- III. Answer any **six** of the following (Not to exceed **120** words. Each carries **4** marks).
23. Define immunity. Add a note on innate and acquired immunity.
 24. Explain antigen presenting cells.
 25. Differentiate between B cell and T cells.
 26. Explain cell mediated immunity.

27. Describe the mechanism of antigen — antibody reaction.
28. Explain the mechanism involved in graft rejection.
29. Discuss the application of microbiology in industry.
30. Briefly explain Bergey's system of classification.
31. Comment on human microbiota.



(6 × 4 = 24 Marks)

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

32. Explain the structure of immunoglobulin. Add a note on its types.
33. Write an essay on disorders of immune mechanism with example.
34. Give a detailed account on major groups of eubacteria with examples.
35. Describe various microbial diseases in man.

(2 × 15 = 30 Marks)