

(Pages : 4)

P – 2572

Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2022

First Degree Programme under CBCSS

Zoology

Core Course

ZO 1543: IMMUNOLOGY AND MICROBIOLOGY

(2019 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

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

1. Name a protozoan disease in man.
2. Mention the name of a bacterium used for controlling insect pests in agricultural crops.
3. What are halophiles?
4. What is passive immunity?
5. What is MALT?
6. What are lymphokines?
7. What are antigens?
8. Which class of antibody is found in colostrums?

P.T.O.

9. Which antibody trigger the type I hyper sensitivity?
10. What is an epitope?

(10 × 1 = 10 Marks)

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

11. Distinguish between viroid and prions.
12. What is type II hypersensitivity?
13. Write the difference between acquired immunity and innate immunity.
14. Distinguish between T cells and B cells.
15. What is opsonisation?
16. Define immunological memory.
17. Explain immunosuppression.
18. Mention two examples for primary immune deficiency disorders.
19. Mention two autoimmune disorders
20. Write notes on importance of
 - (a) Azotobacter
 - (b) Rizobium
21. Give the importance of normal gut micro biota and name a bacteria found in normal gut micro biota of man
22. Write the importance of Rickettsia.
23. Give importance of chemo-lithotrophic bacteria in biosphere.

24. Mention the names of microbial toxins
25. Name the causative organisms of
 - (a) Chickenpox
 - (b) Leprosy
26. What are plasma cells and null cells?

(8 × 2 = 16 Marks)

- III. Answer any **six** of the following. (Not to exceed **120** words. Each question carries **4** marks)
27. Describe the structural organisation of a typical bacteria with the help of a labelled diagram.
 28. Explain the mechanism involved in graft rejection.
 29. Describe briefly the general features of MHC.
 30. Briefly explain different antigen-antibody reactions.
 31. Explain secondary immunodeficiency with suitable example.
 32. What is transplant immunity? Mention different types of organ transplantations.
 33. Write notes on the following
 - (a) aspergillosis
 - (b) candidiasis
 34. Describe the different classes of immunoglobulins.
 35. Describe different components forming complement system.
 36. Explain characteristic features of viruses.

37. Describe about primary lymphoid organs.
38. Explain the significances of different bacterial extremophiles.

(6 × 4 = 24 Marks)

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

39. Write an essay on important applications of microbes in environmental, agricultural, medical, biotechnological and industrial fields.
40. What is immunisation? Briefly describe different methods of vaccination used for making artificial immunity.
41. Describe the different types of cells involved in immune system.
42. What is immune response describe about humoral and cell mediated immune responses.
43. Explain the structure of immunoglobulin with a labelled diagram.
44. Write an essay on different viral and bacterial diseases of man.

(2 × 15 = 30 Marks)
