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M – 1529

Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2021

First Degree Programme under CBCSS

Zoology

Core Course VII

ZO 1542 : IMMUNOLOGY AND MICROBIOLOGY

(2016 and 2017 Admission)

Time : 3 Hours

Max. Marks : 80

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

1. Cowpox
2. APC
3. HLA complex
4. Type I hypersensitivity
5. SCID
6. Pasteurization
7. Malaria parasites
8. Leprosy
9. Fermentation
10. *Thermus aquaticus*

(10 × 1 = 10 Marks)

P.T.O.

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

11. Distinguish haptens from epitopes.
12. Maternal antibodies in colostrum.
13. Transmission of malaria.
14. Importance of Thymus gland.
15. Role of macrophages in immunity.
16. SARS CoV-2
17. First generation vaccines.
18. Bacteria in root nodules.
19. Types of viruses based on genetic material.
20. Microbial pesticides.
21. Auto-immunity
22. Diseases caused by prions.

(8 × 2 = 16 Marks)

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

23. Briefly discuss various diseases caused by bacteria in man.
24. Define innate immunity and discuss its components.
25. Discuss myeloid and lymphoid lineages of immune cells.
26. Discuss the procedures involved in the microbial production of citric acid and ethanol.

27. Write notes on Poliomyelitis and Hepatitis.
28. Classify Eubacteria.
29. Discuss the formation of memory cells and its importance.
30. Discuss the importance of *E.coli* in biotechnology.
31. Explain the mechanism of graft rejection.

(6 × 4 = 24 Marks)

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

32. Discuss the importance of vaccines in disease control with examples.
33. Explain the mechanism of immunity in man in detail.
34. Briefly explain the application of microbes in industry, agriculture and pollution control.
35. Write an essay on symbiotic microbes.

(2 × 15 = 30 Marks)
