QP CODE: 22000731

22000731

Reg No : .....

Name : .....

# M Sc DEGREE (CSS) EXAMINATION, APRIL 2022

## Third Semester

Faculty of Science

M Sc ZOOLOGY

## CORE - ZL010304 - IMMUNOLOGY

2019 ADMISSION ONWARDS

47798E6F

Time: 3 Hours

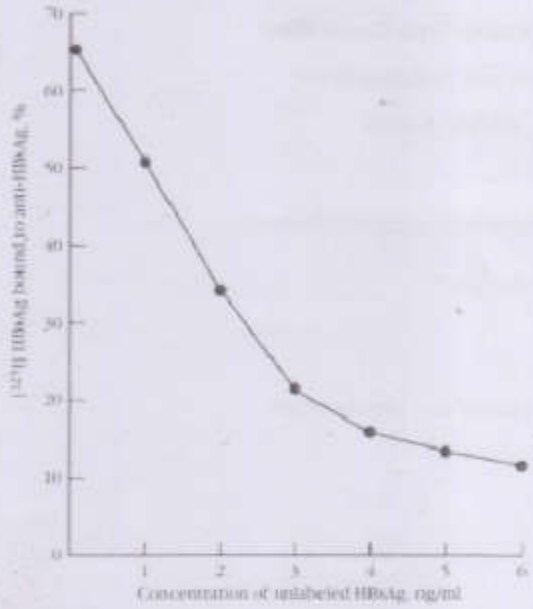
Weightage: 30

### Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Write note on T-cell receptor.
2. Write note on haptens.
3. Comment on the clinical applications of Immunotoxins.
4. *What does the standard curve given below represents? Explain.*




5. Give an account of MAC.

6. Comment on cytokine antagonists.
7. Comment on the significance of HLA typing
8. What is SCID?
9. Mention the primary factors to be borne in mind while designing vaccines for active immunization.
10. What are Immunologically privileged sites.

(8×1=8 weightage)

## Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Describe the biological functions of various classes of antibodies.
12. Explain the multigene organization of immunoglobulin genes.
13. Albert Coons showed that antibodies could be labeled with molecules that have the property of fluorescence. (a) What is the principle behind immunofluorescence? (b) What are the different types of immunofluorescence? Explain.
14. Differentiate between localized and systemic inflammation.
15. Elaborate the genomic map of H 2 and HLA complexes.
16. Explain systemic autoimmunity with suitable examples.
17. Explain host immune responses to bacterial infection and bacterial evasion mechanisms.
18. Explain the process of allograft rejection.

(6×2=12 weightage)

## Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Write an essay on primary and secondary lymphoid organs in human.
20. Elaborate on the regulation of complement system.
21. Elaborate on types of hypersensitivity.
22. Describe various pathways of antigen processing and presentation.

(2×5=10 weightage)