Reg. No ..... Name **20P3047**

M. Sc DEGREE END SEMESTER EXAMINATION - OCT/NOV 2020: JAN 2021

SEMESTER 3 : ZOOLOGY

COURSE : **16P3ZOOT12 : IMMUNOLOGY**

(For Regular - 2019 Admission and Supplementary - 2016/2017/2018 Admissions)

Time : Three Hours Max. Marks: 75

PART A

Answer any 8 (2 marks each)

1. Brief on cell mediated response.
2. How do exogenous and endogenous antigens differ?
3. What is an Idiotype?
4. What is immunoelectrophoresis?
5. Distinguish between affinity and avidity.
6. Brief on lectin pathway of complement activation.
7. What are the main functions of cytokines?
8. Briefly explain DTH.
9. Mention on CVI
10. What are the different types of trasplants?
11. What is Immune electron microscopy?

(2 x 8 = 16)

PART B

Answer any 7 (5 marks each)

12. Differentiate between the main types of T cells.
13. What is the role of APCs in processing of an antigen?
14. Elucidate the structure and formation of IgA.
15. Differentiate between radial immunodiffusion and double immunodiffusion.
16. Prepare an account of antibody dependent pathway of complement activation.
17. Discuss the role of IgE in type 1 hypersensitivity.
18. Give a account of MHC polymorphism.
19. Brief explaination on how MHC expression is regulated in the body.
20. Comment on the biological significance of MHC.
21. Brief on immune response during malaria.
22. Briefly outline the major immunological techniques.

(5 x 7 = 35)

PART C

Answer any 2 (12 marks each)

23. Elaborate the types of cells involved in an immune reaction. Add note on its production and maturation.
24. What are monoclonal antibodies? How are they produced? Mention their main functions.
25. What are vaccines? Mention different types.
26. Describe the major antigen antibody reactions.

(12 x 2 = 24)