

Reg. No

Name

22P367

M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2022

SEMESTER 3 : ZOOLOGY

COURSE : 21P3ZOOT12 : IMMUNOLOGY

(For Regular - 2021 Admission)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Which immunoglobulin type has the highest valency? What is its significance? (R, CO 5)
 2. Which is the major opsonin of the complement system? What is its function? (U)
 3. Write a note on Tumor specific antigens. (U, CO 7)
 4. What is an isotype? (R)
 5. What is chemotaxis? (U, CO 4)
 6. What are 'Scavenger receptors'? (R, CO 3)
 7. What is immunofluorescence? (U, CO 8)
 8. Brief on classical pathway of complement activation. (R, CO 7)
 9. Brief on type-1 hypersensitivity. (R, CO 8)
 10. Brief on HLA complex in humans. (U, CO 7, CO 8)
- (1 x 8 = 8)**

PART B

Answer any 6 questions

Weights: 2

11. Discuss the role of IgE in type 1 hypersensitivity. (An, CO 8)
 12. Write a note on the immune reaction against tumors. (U, CO 7)
 13. How do 'Haptens' increase immunogenicity? (An, CO 6)
 14. Give an account of Flow cytometry and fluorescence. (U, CO 8)
 15. Describe the main genetic model compatible with immunoglobulin structure. (U, CO 5)
 16. Role of neutrophils and lymphocytes in inflammatory response. (U, CO 4)
 17. Prepare an account of antibody dependent pathway of complement activation. (An, CO 7)
 18. Comment on the biological significance of MHC. (R)
- (2 x 6 = 12)**

PART C

Answer any 2 questions

Weights: 5

19. Elaborate on Acute inflammation. (U, CO 4)
20. Explain the two antigen processing and presentation pathways? (An, CO 4, CO 5)

21. Describe the types of immunity.
22. Elaborate on major immunological techniques

(A)
(U, CO 8)
(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 3	Explain the complement system	U	6	1
CO 4	Classify and interpret the Immune effector mechanisms	U	5, 16, 19, 20	13
CO 5	Explain about allergy and hypersensitivity	U	1, 15, 20	8
CO 6	Explain about the Major Histocompatibility Complex (MHC)	U	13	2
CO 7	Explain the mechanism of immune reactions behind health problems and diseases	U	3, 8, 10, 12, 17	7
CO 8	Explain and interpret the basics of immunological techniques	U	7, 9, 10, 11, 14, 22	12

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;