

**2023/TDC(CBCS)/ODD/SEM/  
ZOODSE-501T/035**

**TDC (CBCS) Odd Semester Exam., 2023**

**ZOOLOGY**

**( 5th Semester )**

Course No. : ZOODSE-501T

**( Immunology )**

*Full Marks : 50*  
*Pass Marks : 20*

*Time : 3 hours*

*The figures in the margin indicate full marks  
for the questions*

**SECTION—A**

Answer *fifteen* questions, taking *three* from each

Unit : 1×15=15

**UNIT—I**

1. Define immunogenicity.
2. What are haptens in immunology?
3. What is passive immunity?
4. What is the chemical nature of antibodies?

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UNIT—II

5. What is haematopoiesis?
6. What are lymphocytes?
7. Name two secondary lymphoid organs.
8. What is thymus gland?

UNIT—III

9. Define antigen.
10. What is the full form of ELISA?
11. What is colostrum?
12. Name the most abundant antibody in the human blood.

UNIT—IV

13. What is MHC?
14. What are macrophages?
15. What is interferon?
16. What are opsonins?

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( Continued )

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UNIT—V

17. What is meant by autoimmunity?
18. What are neoantigens?
19. What is the full form of SCID?
20. What is meant by active immunization?

SECTION—B

Answer *five* questions, taking *one* from each Unit :

2×5=10

UNIT—I

21. Differentiate between innate and adaptive immunity.
22. What are the factors influencing innate immunity? Explain briefly.

UNIT—II

23. What are haemopoietic stem cells? Name the haemopoietic bones in adult human beings.
24. What is phagocytosis? What are the various phagocytes of our immune system?

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( Turn Over )

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UNIT—III

25. What is meant by adjuvant? How does an adjuvant work?
26. Write the basic properties of antigens.

UNIT—IV

27. What are cytokines? Elucidate.
28. Give a brief note on MHC proteins.

UNIT—V

29. Differentiate between primary and secondary immune deficiencies.
30. What is meant by vaccination? How does it differ from immunization?

SECTION—C

Answer *five* questions, taking *one* from each Unit :  
5×5=25

UNIT—I

31. What is epitope? Discuss the cells involved in innate immunity. 1+4=5
32. Discuss the different components of immune system.

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( Continued )

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UNIT—II

33. Discuss the cellular components of humoral and cell-mediated immune systems.
34. What is spleen? Discuss briefly its histology and functional significance in relation to immune system.

UNIT—III

35. What is immunoglobulin? What are its types? Describe the general structure of immunoglobulin. 1+1+3=5
36. Discuss antigen-antibody interactions as tools for research and diagnosis.

UNIT—IV

37. What is meant by complement system? What are its components? Discuss briefly the classical pathway of activation of complement system. 1+1+3=5
38. What is meant by antigen processing and presentation? Mention the steps of the process. Which cell is involved in the process? 2+2+1=5

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( Turn Over )

UNIT—V

- 39.** Discuss humoral-associated and cell-mediated autoimmune diseases.
- 40.** Discuss different forms of vaccines used in active immunization. Add a brief note on AIDS. 3+2=5

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