



**2021/TDC/CBCS/ODD/  
ZOODSE-501T/035**

**TDC (CBCS) Odd Semester Exam., 2021  
held in March, 2022**

**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 the following questions in very short  
(any fifteen) : 1×15=15

1. Define immunity.
2. What are the physiological barriers in innate immune system?
3. Define adaptive immune system.



( 2 )

4. What do you mean by phagocytosis?
5. What is haematopoiesis?
6. What are lymphoid organs?
7. Name few secondary lymphoid organs.
8. Name the site of origin of B- and T-cells.
9. What is an immunogen?
10. What are APCs?
11. What are haptens?
12. Mention the function of an adjuvant.
13. Write two functions of MHCs.
14. What is complement?
15. Name two different kinds of cytokines.
16. Define endocytosis.
17. What is autoimmunity?
18. Give example of a recombinant vaccine.

22J/894

( Continued )

( 3 )

19. What are toxoids?
20. Define molecular mimicry.

SECTION—B

Answer the following questions in short (any five) :  
2×5=10

21. What are the chemical barriers of innate immune system?
22. Differentiate between humoral and cell-mediated immune systems.
23. Write a note on the process of apoptosis.
24. Name the different types of T-cells present in the body.
25. Mention the basic properties of antigen.
26. Write about the importance of monoclonal antibodies in modern days research.
27. Define the classical pathway of complement fixation.
28. Mention the basic properties of cytokines.

22J/894

( Turn Over )



( 4 )

29. What are epitopes?
30. What are vaccines? Give examples.

SECTION—C

Answer the following broad-type questions (any five) :  $5 \times 5 = 25$

31. Write in detail about the different components of innate immune system.
32. Name the different types of cell involved in adaptive immune response. How does it differ from the innate immune system?  $3+2=5$
33. Name the primary lymphoid organs. Explain the structure and function of spleen.  $1+2+2=5$
34. Elucidate the structure of lymph node with proper diagram.
35. What are immunoglobulins? Describe with labelled diagram the basic structure of antibody.  $1+4=5$
36. What is monoclonal antibody? Discuss the process of monoclonal antibody production.  $1+4=5$

22J/894

( Continued )

( 5 )

37. Discuss about the classical pathway of complement fixation.
38. Enlist the chief features of MHC-I and MHC-II molecules.  $2\frac{1}{2}+2\frac{1}{2}=5$
39. What is AIDS? Name the organism causing AIDS. Mention the preventive measures for AIDS.  $1+1+3=5$
40. What are attenuated vaccines? Enlist the characteristics of an ideal vaccine.  $1+4=5$

\*\*\*

22J—950/894

2021/TDC/CBCS/ODD/  
ZOODSE-501T/035