



**2021/TDC/CBCS/ODD/  
ZOOHCC-303T/030**

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

**ZOOLOGY**

**( 3rd Semester )**

Course No. : ZOOHCC-303T

**( Fundamental of Biochemistry )**

*Full Marks : 50*

*Pass Marks : 20*

*Time : 3 hours*

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

**SECTION—A**

Answer any *ten* questions : 2×10=20

1. Write a note on structural polysaccharides.
2. What are glycoconjugates? Give an example.
3. Define aldolases and ketoses.



( 2 )

4. Write a note on phospholipids.
5. What are natural waxes? Give examples.
6. Discuss the role of sterols in our body.
7. What are the essential amino acids? Give examples.
8. What are the different secondary structures found in proteins?
9. Write a note on conjugate proteins.
10. What are purines and pyrimidines?
11. What are the components of nucleosides and nucleotides?
12. How does temperature cause denaturation of DNA?
13. Write a note on nomenclature of enzymes.
14. What are hydrolases? Mention their modes of action.
15. What are  $K_m$  and  $V_{max}$ ?

22J/672

( Continued )

( 3 )

SECTION—B

Answer any five questions :

6×5=30

16. Mention the biological importances of carbohydrates. Write a note on storage polysaccharides. 4+2=6
17. Discuss the role of glycoconjugates in the immune system. Add a note on oligosaccharides. 4+2=6
18. Differentiate between saturated and unsaturated fatty acids. Add a note on their functions. 3+3=6
19. Briefly discuss the structures of lipids and glycolipids. 3+3=6
20. Describe the different levels of the structural organization in proteins. 6
21. Write notes on the following : 3×2=6
  - (a) Classification of proteins
  - (b) Importance of essential and non-essential amino acids
22. Describe Watson and Crick model of DNA. 6

22J/672

( Turn Over )



( 4 )

23. Discuss in brief the following : 2×3=6
- (a) Phosphodiester bond
  - (b) Types of RNA
  - (c) Complementary DNA
24. Discuss the roles played by different factors in enzyme catalyzed reaction. 6
25. Write brief notes on the following : 3×2=6
- (a) Mechanism of enzyme action
  - (b) Regulation of enzyme action

\*\*\*