



**2022/TDC (CBCS)/EVEN/SEM/  
ZOOHCC-402T/089**

**TDC (CBCS) Even Semester Exam., 2022**

**ZOOLOGY**

**( Honours )**

**( 4th Semester )**

Course No. : ZOOHCC-402T

**( Physiology : Life Sustaining Systems )**

*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 of the following :

2×10=20

1. Write a brief note on the mechanical events of digestion.
2. Briefly discuss liver as a digestive gland.
3. Write a brief note on gastric glands.



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4. What do you mean by inspiratory reserve volume and expiratory reserve volume? Add a note on total lung capacity.
5. Discuss briefly the process of breathing.
6. Write a brief note on pulmonary ventilation.
7. What do you mean by juxtamedullary nephron? Mention its specific function.
8. Write a brief note on regulation of acid-base balance.
9. Define urine. Mention the normal composition of human urine.
10. Briefly discuss the structure of haemoglobin.
11. Write a brief note on the Best and Taylor's theory of blood coagulation.
12. Write a brief note on the types of heart valves.
13. Briefly discuss the circulation of blood in vertebrates.

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( Continued )

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14. What do you mean by bundle of His? Mention its function.
15. Write a brief note on electrocardiogram.

SECTION—B

Answer any *five* questions of the following :  $6 \times 5 = 30$

16. Define alimentary canal. Discuss the alimentary canal of human being with suitable labelled diagram. Mention the types of salivary glands present in human being.  
 $1+4+1=6$
17. Discuss the chemical events of digestion with suitable illustration. Add a detailed note on the hormonal control of secretion of enzymes in the digestive tract with suitable illustration.  
 $3+3=6$
18. Define lungs. Discuss the histological structure of human lung with proper illustrations.  
 $1+3+2=6$
19. Define respiration. Discuss the mechanism of transport of gases in the respiratory processes in human being with suitable illustrations.  
 $1+3+2=6$

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( Turn Over )



( 4 )

20. Define kidney. Discuss the structure of mammalian kidney with proper illustrations.  
1+3+2=6
21. Define excretion. Discuss the mechanism of urine formation in human being with suitable illustrations.  
1+3+2=6
22. Define blood. Discuss the composition of human blood with suitable illustrations.  
1+3+2=6
23. Discuss in detail the blood buffer system. Add a note on Rh factor.  
4+2=6
24. Define heart. Discuss the structure of mammalian heart with suitable illustrations.  
1+3+2=6
25. Define blood pressure. Discuss in detail the regulation of blood pressure. Mention the clinical significance of measuring blood pressure.  
1+4+1=6

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