

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.

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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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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