



‘समानो मन्त्रः समितिः समानी’

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 4th Semester Examination, 2023

**CC9- ZOOLOGY**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

1. Answer any **five** questions from the following: 1×5 = 5
- (a) Define ‘dead-air space’.
  - (b) Write the function of erythropoietin.
  - (c) What is meant by end diastolic volume?
  - (d) State the function of parietal cells of stomach.
  - (e) The ascending thin limb of Henle’s loop is mostly impermeable to:  
(i) Water      (ii) K<sup>+</sup>      (iii) Cl<sup>-</sup>      (iv) none of these  
(Choose the right answer)
  - (f) Two kidneys receive \_\_\_\_\_ of the total blood volume per minute.  
(i) 20%      (ii) 30%      (iii) 50%      (iv) 90%  
(Choose the right answer)
  - (g) Tricuspid valve is present between left atrium and left ventricle. (True or False)
  - (h) What is ‘Bohr Effect’?
2. Answer any **three** questions from the following: 5×3 = 15
- (a) Write a short note on origin and conduction of cardiac impulse.
  - (b) Write a note on carbon monoxide poisoning.
  - (c) How do sharks maintain salt and water balance?
  - (d) What is GFR? Mention the factors determining GFR. 2+3
  - (e) Discuss the mechanism of protein digestion.
3. Answer any **two** questions from the following: 10×2 = 20
- (a) Discuss on the role of haemoglobin in oxygen transport. Add a note on oxygen dissociation curve and its importance. 4+4+2
  - (b) What are intravascular clotting and intravascular thrombosis? Discuss on the factors that prevent intravascular clotting and intravascular thrombosis. 4+6
  - (c) Mention the role of bile in digestion. Write the mechanism of digestion and absorption of fat substances. 2+8
  - (d) Draw and describe the structure of Bowman’s capsule. How is acid-balance regulated in human? 4+6

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