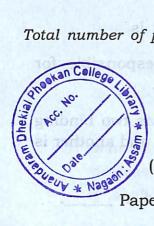
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3 (Sem-4/CBCS) ZOO HC2

2024 ZOOLOGY

(Honours Core)

Paper: ZOO-HC-4026

(Animal Physiology : Life Sustaining Systems)

Full Marks: 60

Time: Three hours

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

1.	Fill in the blanks: Selemine 1×7=7					
	(a)	The capillary network supplying the Loop of Henle is				
	(b)	The amount of air moving in and out of lungs during each breath is called				
	(c)	Major portion of CO ₂ is transported as in human body.				

(d)	Pacemaker	of	the	heart	is	
(a)	Pacemaker	of	the	heart	18	

- (e) The Plasma protein responsible for blood clotting is _____.
- (f) Carrier protein SGLT has two binding sites. One is for glucose and another is for _____.
- (g) Zymogen cells are found in _____.
- 2. Answer very briefly:

2×4=8

- (a) What is erythropoesis?
- (b) What is ECG?
- (c) Define vital capacity.
- (d) What are uricotelic and ureotelic animals?
- 3. Answer the following: (any three) 5×3=15
 - (a) Write a note on respiratory pigments.
 - (b) Write the role of ADH in urine formation.
 - (c) Write about regulation of heart beat.

- (d) Write on ABO blood grouping.
- (e) Describe in brief about the regulation of acid-base balance.
- 4. (a) What is heart beat? Discuss the process of conduction of heart beat with a labelled sketch. 2+8=10

Or

(b) What do you mean by absorption?

Describe the process of absorption of carbohydrates and proteins.

2+4+4=10

5. (a) What is glomerular filtrate? Write about the mechanism of urine formation in detail. 2+8=10

Or

3

(b) Describe the structure and functions of a nephron with a labelled sketch. What is Renin-Angiotensin system?

7+3=10

6. (a) What is blood? Describe the structure and functions of various components of blood. Add a note on fibrinolytic system. 2+6+2=10

Or

(b) What is clotting of blood? Write about the process of clotting of blood.

2+8=10

