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3 (Sem-4/CBCS) ZOO HC 2

2025

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. Answer the following questions : $1 \times 7 = 7$
- (a) What is micelle ?
 - (b) Write the dental formula of human.
 - (c) Trachea is formed of which cartilage ?
 - (d) Give *one* example of uricotelic animal.
 - (e) Name the instrument to measure human blood pressure.

- (f) Define pH.
- (g) Give *one* example of anti-coagulant.
2. Answer the following questions very briefly :
2×4=8
- (a) How can animals be classified on the basis of their excretory products ?
- (b) Write the differences between Myogenic and Neurogenic heart.
- (c) What is Homeostasis ?
- (d) Write the names of *two* Bile salts.
3. Answer the following : (*any three*)
5×3=15
- (a) Write a short note on respiratory pigment.
- (b) Discuss the role of liver in the process of digestion.
- (c) Discuss the process of digestion in mouth cavity.
- (d) Write briefly about the Renin-Angiotensin system.
- (e) Discuss the role of platelets in the coagulation of blood.

4. Define digestion. Discuss the role of saliva in the process of digestion. Discuss how saliva secretion is regulated. 1+4+5=10

Or

Discuss the process of digestion of proteins in GI tract. State the role of HCl in the process of digestion. 7+3=10

5. Define Tidal volume of Lungs. Describe the mechanism of transport of gases in blood. 2+8=10

Or

Who discovered blood group ? Discuss about the ABO blood grouping system. State the role of Rh factor. 1+7+2=10

6. Define cardiac cycle. Describe the events of cardiac cycle. 1+9=10

Or

Describe the structure of a Nephron. Discuss the role of hormones in urine formation. 5+5=10