

B.Sc. 4th Semester (Honours) Examination, 2023 (CBCS)**Subject : Zoology****Course : CC-IX****(Animal Physiology: Life Sustaining Systems)****Full Marks: 40****Time: 2 Hours**

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their
own words as far as applicable.*

2x5=10**1. Answer any five questions:**

- (a) What is myocardial infarction?
- (b) What is the function of glottis and epiglottis?
- (c) What is oxygen-haemoglobin dissociation curve?
- (d) What are the significance of urine formation?
- (e) Write the importance of Rh factor in blood transfusion.
- (f) State the main functions of villi and microvilli?
- (g) Name the endocrine glands those help in regulation of blood pressure.
- (h) Define osmoconformers and osmoregulators.

5x2=10**2. Answer any two questions of the following:**

- (a) Discuss osmoregulation in aquatic vertebrates in brief.
- (b) Write down the cascade mechanism of blood clotting through word diagram. What is homeostasis? 3+2
- (c) Define tidal volume, forced inspiratory flows and expiratory volume. Enumerate respiratory pigments with examples. 3+2
- (d) What do you mean by lactose intolerance? Comment on the role of bile in fat digestion. 2+3

10x2=20**3. Answer any two questions:**

- (a) Demonstrate the digestion and absorption of carbohydrates. State the differences between chemical and mechanical digestion with their respective zones in the digestive tract. 8+2
- (b) Discuss oxygen transport in blood in detail. Comment on carbon monoxide poisoning. 7+3
- (c) Illustrate the structure of a mammalian heart with labelled diagram. Add a note on coronary circulation. (4+2)+4
- (d) Write short notes on:
 - (i) Juxtaglomerular apparatus
 - (ii) Haemopoiesis