

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

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

1. Answer any five questions:

2×5=10

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

2. Answer any two questions of the following:

5×2=10

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

3. Answer any two questions:

10×2=20

- 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
- Discuss oxygen transport in blood in detail. Comment on carbon monoxide poisoning. 7+3
- Illustrate the structure of a mammalian heart with labelled diagram. Add a note on coronary circulation. (4+2)+4
- Write short notes on: 5+5
 - Juxtaglomerular apparatus
 - Haemopoiesis