

Reg. No. :

III Semester M.Sc. Degree (CBSS – Reg./Supple./Imp.) Examination, October 2023 (2020 Admission Onwards) ZOOLOGY

ZOO3C10 : Animal Physiology

Time: 3 Hours

Max. Marks: 60

I. Answer any two of the following.

 $(2 \times 12 = 24)$

- 1) Write an essay on the ultrastructure of kidney and urine formation.
- 2) Explain the generation and propagation of action potential in neurons.
- Write about the thermoregulation process emphasizing the role of hypothalamus.
- Explain the process of gas transport in body. Comment on oxygen-haemoglobin dissociation curve.
- II. Answer any two of the following.

 $(2 \times 8 = 16)$

- 5) Compare the structure of skeletal, cardiac and smooth muscle.
- 6) Explain hormonal and neural regulation of digestion.
- 7) Explain the components of lymphatic system.
- Write notes on the different neurotransmitters in vertebrates and invertebrates.
- III. Write notes on any four of the following.

 $(4 \times 5 = 20)$

- 9) Comment on Limbic system.
- 10) Concept of renal clearance.
- 11) What is acclimatization?
- 12) Mention vitamins and their functional roles.
- 13) Comment on Hamburger phenomenon.
- 14) Comment on the characteristics and constituents of urine.