



K22P 1437

Reg. No. : .....

Name : .....

III Semester M.Sc. Degree (CBSS – Reg./Sup./Imp.) Examination, October 2022  
(2019 Admission Onwards)

**ZOOLOGY**  
**ZOO3C10 : Animal Physiology**

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following :

- 1) Describe the mechanism of pulmonary ventilation. Add a note on the neural and chemical regulation of respiration.
- 2) Explain the mechanism of urine formation and the physiology of micturition.
- 3) Describe the molecular basis and bioenergetics of muscle contraction.
- 4) What are synapses ? Explain the mechanism of nerve impulse transmission through a synapse. (2×12=24)

II. Answer **any two** of the following :

- 5) Explain osmoregulatory mechanism in fresh water and marine animals.
- 6) Give an account of composition of Lymph.
- 7) Distinguish between slow wave sleep and REM sleep.
- 8) Differentiate intracellular and extracellular digestion. (2×8=16)

III. Write short notes on **any four** of the following :

- 9) Mention the association areas of cerebral cortex.
- 10) Define renal clearance. Give the clearance value of urea, creatinine and phosphate.
- 11) Comment on respiratory pigments.
- 12) Mention the role of hypothalamus in temperature regulation.
- 13) What is a balanced diet ? Add a note on its significance.
- 14) How osmoregulation occur in hyperosmotic condition ? (4×5=20)