



K24P 1117

Reg. No. : .....

Name : .....

**Second Semester M.Sc. Degree (CBCSS – OBE – Regular)**  
**Examination, April 2024**  
**(2023 Admission)**  
**ZOOLOGY**

**MSZGY02C08/MSZNG02C08 : Animal Physiology and Endocrinology**

Time : 3 Hours

Max. Marks : 60

I. Answer **any five** of the following.

- 1) Resting membrane potential.
- 2) Factors determining Glomerular Filtration Rate.
- 3) Anticoagulants and its action.
- 4) Role of calcium ions in muscle contraction.
- 5) General structure of membrane-bound receptors.
- 6) Y-organ.

(5×3=15)

II. Answer **any three** of the following.

- 7) Describe the feedback loops and control systems for steroid hormones.
- 8) Discuss the role of Aldosterone and ADH in renal function.
- 9) Explain the role of clotting factors in blood clotting.
- 10) Describe the receptor mediated hormone action.
- 11) Describe the mechanism involved for the removal of the neurotransmitters from the synaptic cleft.

(3×6=18)

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III. Answer **any three** of the following.

- 12) Discuss the role of juvenile hormone in the reproductive processes of insects. How does this hormone regulate metamorphosis and reproduction ?
- 13) Describe the various pathways of heat loss in the human body. How do environmental conditions and physical activity affect these processes ?
- 14) Discuss the physiological mechanisms involved in transport of carbon dioxide. Add a note on changes in blood acidity during CO<sub>2</sub> transport.
- 15) Describe the mechanisms involved in the concentration of urine in vertebrate.
- 16) Discuss the neuroendocrine regulation of vertebrate digestion.

(3×9=27)