3/10/25

TM253659E

Reg. No :.....

MASTER'S DEGREE (C.S.S) EXAMINATION, OCTOBER 2025

2024 ADMISSIONS REGULAR

SEMESTER III - CORE COURSE ZOOLOGY

ZO3C09TM20 - Animal Physiology

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight (8x1=8)

1. Describe the significant features of digestive system in ruminants.
2. Elaborate on avian digestive system.
3. Comment on stroke volume.
4. Give an account on Hering-Breuer reflex.
5. Discuss Ear ossicles.
6. Explain catch and fibrillar muscles.
7. Describe the process of micturition.
8. Point out the relevance of hibernation.
9. Write notes on epinephrine and norepinephrine.
10. What are synthetic hormones?

Part B

II. Answer any Six questions. Each question carries 2 weight (6x2=12)

11. Give an outline on physiology of starvation.
12. Explain respiration in unusual environment with special mention to high altitude.
13. Give a detailed account on cardiac cycle with suitable diagrams.
14. Enumerate the major types and characteristics of neurotransmitters.
15. Elaborate on the modifications of synaptic transmission.
16. Explain the adaptations for extreme environments in poikilotherms.
17. Write a detailed account on eicosanoids, chalones, and lumones.
18. Describe the hormonal regulation of gametogenesis.

Part C

III. Answer any Two questions. Each question carries 5 weight (2x5=10)

19. Explain the mechanics of ventilation.
20. Explain the structure, function and properties of neuromuscular junction.
21. Give a detailed account on osmoregulation in fresh water and terrestrial animals.
22. Write an essay on endocrine glands of vertebrates, the hormones secreted by them and the major physiological role of each of them.