

(Pages : 3)

T – 6407

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, September 2024

Zoology

ZO 521 : ADVANCED PHYSIOLOGY AND FUNCTIONAL ANATOMY

(2023 Admission)

Time : 3 Hours

Max. Marks : 75

- I. Answer any **ten** of the following each in a paragraph. Each question carries **2** marks.
1. Write short notes on the principle and significance of ECG.
 2. Comment on tactile receptors.
 3. Write notes on Chylomicron in absorption.
 4. Briefly explain how the heart produces sound.
 5. Describe the process of Dope test.
 6. Write short notes on renin angiotensin mechanism.
 7. Enumerate the features of lactation and parturition.
 8. Differentiate between ciliary and amoeboid movements.
 9. Write short notes on haemodialysis.
 10. Explain the features of hydrostatic skeleton.

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11. Write notes on the importance of calcium in muscle contraction.
12. Differentiate between eustress and distress.
13. Briefly explain types of muscle contraction.
14. Significance of Broca's area.
15. Explain the functions of pancreatic juice.

(10 × 2 = 20 Marks)

II. Answer any **six** of the following each not exceeding a page. Each question carries **4** marks.

16. Explain capacitation of sperm.
17. Differentiate between acclimation and acclimatization.
18. Explain different types of excretion.
19. Explain main causes of obesity.
20. Write notes buffer system in blood.
21. Comment on stress and stress adaptations.
22. Write short notes on factors leading to neuronal death.
23. Explain hormonal control of ovarian function.
24. Explain major levels of central nervous system function.
25. Describe classification of hormones.

(6 × 4 = 24 Marks)



III. Write short essay not exceeding **2** pages on any **three** of the following. Each question carries **7** marks.

26. Describe osmoregulation of fresh water fish in marine habitat.

27. Explain the functions of hormones in digestion.

28. Describe the ultrastructure of a skeletal muscle.

29. Write short essay on different states of brain activity.

30. Explain blood clotting.

(3 × 7 = 21 Marks)

IV. Answer any **one** of the following not exceeding **4** pages. The question carries **10** marks.

31. Write an essay on prenatal diagnostic techniques.

32. Describe gaseous transport mechanism in higher vertebrates.

(1 × 10 = 10 Marks)

