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Reg. No. : .....

Name : .....

TRIVANDRUM

Third Semester B.Sc. Degree Examination, March 2022

First Degree Programme under CBCSS

Zoology

Complementary Course for Botany, Home Science and Bio- Chemistry

ZO 1331.1 : FUNCTIONAL ZOOLOGY

(2015 – 2018 Admission)

Time : 3 Hours Max. Marks : 80

I. Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. Name a phototrophic bacteria.
2. Short term reserve for ATP in vertebrate muscle is ————————.
3. The first EEG record was done by ————————.
4. What is HbS?
5. Name a copper containing respiratory pigment.
6. What is angina pectoris?
7. Name two inhibitory neurotransmitters.
8. Write on vasa recta.
9. What is purinotely?
10. What are Nissl's bodies?

(10 × 1 = 10 Marks)

P.T.O.

II. Answer any **eight** of the following. **Each** question carries **2** marks.

11. Write on roughage.

12. What is PEM?

13. Comment on all or none law.

14. Write in brief about EEG.

15. What is a myelinated nerve fiber?

16. Explain chloride shift in brief.

17. Name any four ill effects of tobacco smoking.

18. Write in brief about electrical synapse.

19. Write on myoglobin.

20. What is glomerulonephritis?

21. Comment on RAAS.

22. Write about juxta glomerular apparatus.

(8 × 2 = 16 Marks)

III. Answer any **six** of the following. **Each** question carries **4** marks.

23. Explain the process of glomerular filtration. What are the conditions required for filtration to occur and how is Malpighian tubule adapted for it?

24. With a labelled sketch explain the process of synaptic transmission.

25. Discuss the physiological role of Vitamin C and disorders due to its deficiency.

26. Comment on blood plasma proteins and their functions.

27. Describe patterns of Nitrogen excretion.

28. Explain Cori cycle.

29. Classify hormones with examples for each.

30. Write on lymphoid organs and tissues

31. Explain the mechanisms of innate immunity

(6 × 4 = 24 Marks)

IV. Answer any **two** of the following. **Each** question carries **15** marks.

32. Explain neural and chemical control of respiration.

33. Discuss the physiology of blood coagulation.

34. Explain the mechanisms of hormone action.

35. Describe the physiological and biochemical mechanisms of muscle contraction.

(2 × 15 = 30 Marks)
