MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No.: …… **Name: …….**

Third Semester B.Sc. Degree Examination, November 2016

First Degree Programme under CBCSS

Complementary Course: Zoology – III (for Botany)

AUZO331.2a: Functional Zoology

Time: **3** Hours Max. Marks: **80**

Instruction: Draw diagrams **wherever** necessary.

SECTION – A

*Answer **ALL** questions in one or two sentences.*

1. What is PEM ?
2. Name any two haemoglobin variants.
3. Differentiate between tissue hypoxia and anoxia.
4. Comment on PCV.
5. Differentiate between neurogenic and myogenic heart.
6. Comment on the endocrine function of kidneys.
7. What is rigor mortis ?
8. Comment on myxoedema.
9. Enlist any four types of macrophages.
10. What is allergen ? Give an example.

(10 × 1 = 10 Marks)

SECTION – B

*Answer any **TEN** questions, not exceeding a paragraph.*

11. Comment on the physiological importance of Vitamin C.
12. What is Hamburger phenomenon ?
13. Comment on the major groups of proteins found in blood plasma.
14. Give an account of haemophilia.
15. Briefly describe cardiac cycle.

16. Comment on ammonotelism, citing an example.
17. Comment on the role of atriopeptin in controlling renal function.
18. Write a note on the composition of urine.
19. What is saltatory conduction ?
20. Give an account of neurotransmitters.
21. What is muscle fatigue ?
22. Comment on growth hormone.
23. Elucidate the major functions of progesterone.
24. Differentiate between humoral immunity and cell – mediated immunity.
25. Comment on the methods of active immunisation.

(10 × 2 = 20 Marks)

SECTION – C

*Short essay type : Answer any **SIX** questions.*

26. What is holozoic nutrition ? Briefly describe the different types of holozoic nutrition.
27. Elucidate the structure of haemoglobin.
28. Describe thrombosis.
29. Comment on electrocardiogram.
30. Give an account of juxtaglomerular apparatus.
31. Describe the structure of a typical neuron.
32. Describe muscle twitch.
33. Give an account of the hormones of adenohypophysis.
34. Describe the basic structure of antibodies.

(6 × 5 = 30 Marks)

SECTION – D

*Long essay type : Answer any **TWO** questions.*

35. Explain the coagulation cascade in blood clotting.
36. Write an essay on gas exchange in tissues.
37. Briefly describe the initiation and transmission of impulses along the nerve fibre.
38. Give an account of AIDS. Discuss its etiology, immunopathology and preventive measures.

(2 × 10 = 20 Marks)

∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*