 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

 **M.Sc.** DEGREE EXAMINATION - **ZOOLOGY**

THIRD SEMESTER – **APRIL 2012**

# ZO 3810 - INTEGRATED PHYSIOLOGY

 Date : 24-04-2012 Dept. No. Max. : 100 Marks

 Time : 1:00 - 4:00

**PART – A**

 **Answer ALL the questions: (10 X 2 =20 Marks)**

1. Define diffusion coefficient.

2. What are halophiles? Mention their physiological significance.

3. What is cryptobiasis? Mention its importance.

4. Distinguish exogenous and endogenous rhythms.

5. Comment on Aschoffs rule.

6. Mention any four causes for endocrine disorders.

7. Differentiate neuromodulators and neurotransmitters.

8. State “All or none law” in terms of caridiac muscles.

9. Mention any two applications of bioluminescence.

10. Expand TMOA and GABA.

**PART-B**

**Answer any FOUR questions: (4 X 10 =40 Marks)**

11. Examine the neurohaemal and neurosecretory physiology of insects.

12. Highlight the effects of toxins on human physiology.

13. Outline the scope of chronobiology in terms of biological rhythm.

14. Explain the laws of classical conditioning.

15. “Kidney is an important organ of human body” – JUSTIFY.

16. How do you estimate BMR?

**PART-C**

**Answer any TWO questions: (2 X 20= 40 Marks)**

17. Elucidate homeostasis in human in terms of positive and negative feed back,

 temperature regulation and osmoregulation.

18. Examine the electroneurophysiology of vision.

19. Illustrate the contractile machinery of a skeletal muscle and highlight the biochemical

 changes during muscle contraction.

20. Discuss the impacts of climatic factors on human physiology.

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