 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – NOVEMBER 2012

# ZO 3810 - INTEGRATED PHYSIOLOGY

 Date : 03/11/2012 Dept. No. Max. : 100 Marks

 Time : 9:00 - 12:00

**SECTION – A**

***Answer ALL questions:* (10×2= 20)**

01. What are halophiles ? Cite two examples.

02. Define diffusion coefficient.

03. Distinguish positive and negative feed back mechanisms.

04. State the cognitive function of cerebellum.

05. Comment on Henry’s law.

06. Mention any four applications of bioluminescence .

07. Reveal the structure of aldosterone

08. Compare upregulation and down regulation with a classical example

09. Comment on Aschoff’s rule

10. Expand: a) SCN b) JGA

**SECTION – B**

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

11. Enlist the effects of any ten toxins on human physiology in the form of table.

12. Illutrate the location and functions of all the cranial nerves of human.

13. Highlight the mode of action of any ten gastro intestinal hormones.

14. How do you estimate BMR ?

15. Outline electroneuro physiology of vision in the light of phototransduction.

16. How do you relate circadian rhythm with hypothalamic function.

**SECTION – C**

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

17. Compare the physiology of skeletal muscles and cardiac muscles.

18. Discuss the impact of abiotic factors on the integrated physiology.

19. Explain neuronal and hormonal homeostasis in terms of hypothalamic

 control, cascade effect and target cell interaction.

 20. Elucidate the mechanism of exchange of oxygen and carbondioxide in view of

 dissociation curves .

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