

**STELLA MARIS COLLEGE (AUTONOMOUS) - CHENNAI 600 086**  
(For candidates admitted during the academic year 2005-06 & thereafter )

**SUBJECT CODE: ZL/MC/PH64**

**B. Sc. DEGREE EXAMINATION APRIL 2009**  
**BRANCH VI.A. - ADVANCED ZOOLOGY & BIOTECHNOLOGY**  
**SIXTH SEMESTER**

**COURSE : MAJOR – CORE**  
**PAPER : VERTEBRATE PHYSIOLOGY**

**TIME : 3 HOURS** **MAX. MARKS : 100**

**SECTION – A**

**ANSWER ALL QUESTIONS: (10 X 3 = 30)**

1. What is a conjugated protein? Give an example.
2. Distinguish glycogenesis from gluconeogenesis.
3. Draw a neat labeled diagram of ECG and explain.
4. What is organ of Corti?
5. Distinguish ureotelism from uricotelism with examples.
6. Describe Cori cycle.
7. Explain conditioned reflex with Pavlov's experiment.
8. Distinguish euryhaline from stenohaline forms.
9. What is bioluminescence? Give suitable examples.
10. Expand the abbreviations: NAD, FSH, ACTH.

**SECTION – B**

**ANSWER ANY FIVE OF THE QUESTIONS: (5 X 6 = 30)**

11. Give an account of digestion of food in the stomach.
12. Summarize the process of Carbon – dioxide transport. Add a note on chloride shift.
13. Describe the structure of human kidney.
14. Give an account on synaptic transmission of nerve impulse.

15. Give an account on the Osmoregulatory mechanisms in Teleostean fishes
16. Draw and describe the structure and function of human eye.
17. Explain briefly the functions and disorder related to Islets of Langerhans.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS:**

**(2 X 20 = 40)**

18. Write an essay on catabolism of carbohydrate for the release of energy.
19. Explain the mechanism of urine formation in human with diagrams.
20. Write an account on menstrual cycle and the hormones related to it.
21. Describe the mechanism of muscle contraction.

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