



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

FIRST SEMESTER – NOVEMBER 2011

**ZO 1815 - ADVANCED EVOLUTIONARY BIOLOGY**

Date : 05-11-2011  
Time : 1:00 - 4:00

Dept. No.

Max. : 100 Marks

**Section A**

**Answer ALL questions**

**(10x 2=20 marks)**

1. What are Gamma gardens?
2. Comment on atavism.
3. Mention the contributions of Cuvier.
4. Distinguish analogy from homology
5. Primeval atmosphere was anoxic. Justify.
6. Characterize Mesozoic era.
7. Comment on Narmadha man.
8. List down the vestigial organs in man.
9. What do you mean by co-evolution?
10. Differentiate transition from transversion.

**Section B**

**Answer any FOUR questions**

**(4x10=40 marks)**

11. Elaborate the contributions of any four neo-Lamarckians.
12. Write notes on evolutionary significance of point mutation.
13. Explain the different modes of fossilization.
14. Categorize animal colouration.
15. Differentiate biochemical metamorphosis from biochemical recapitulation.
16. Assess radiometric dating of rocks and fossils.

**Section C**

**Answer any TWO question**

**(2x20=40 marks)**

17. Discuss the role of natural selection in genetic polymorphism.
18. Explain modern concept of recapitulation theory.
19. Evaluate the role of isolating mechanisms in speciation.
20. Man can steer evolution in the direction he regards good and desirable - Substantiate.

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