 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – **APRIL 2012**

# ZO 1815 - ADVANCED EVOLUTIONARY BIOLOGY

Date : 30-04-2012 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

**Part A**

**Answer All the questions: (10×2=20 Marks)**

1. Differentiate inorganic from organic evolution.
2. What is atavism?
3. Mention the major events during Agnostic period.
4. Distinguish analogy from homology.
5. Primeval atmosphere was anoxic. Substantiate.
6. Comment on Mesozoic era.
7. Mention any THREE important characteristics of Homo sapiens.
8. List down any EIGHT vestigial organs in man.
9. What do you mean by evolutionary convergence?
10. Differentiate transition from transversion.

**Part B**

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

1. Elaborate the contributions of any FOUR neo-Lamarckians.
2. Evaluate the evolutionary significance of gene mutation.
3. Explain the types of fossils.
4. Explain animal colouration.
5. Write notes on biochemical metamorphosis and biochemical recapitulation.
6. Describe pre - adaptation.

**Part C**

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

1. Discuss natural selection and genetic polymorphism.
2. Explain the recent concepts of biogenetic law.
3. Evaluate the role of isolating mechanisms in speciation.
4. Elaborate eugenics, euphenics and euthenics.

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