 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – **NOVEMBER 2012**

# ZO 1821/1815 - ADVANCED EVOLUTIONARY BIOLOGY

Date : 07/11/2012 Dept. No. Max. : 100 Marks

Time : 1:00 - 4:00

**Section A**

Answer **ALL** questions: 10x2=20 Marks

1. Comment on cosmozoic theory.
2. Big bang theory is a tenable hypothesis. Substantiate
3. What is biochemical recapitulation?
4. Name any eight vestigial organs in Man.
5. Comment on Mesozoic era.
6. Mention three important characteristics of Homo sapiens
7. Point mutation may affect survival and reproduction. Justify
8. With a suitable example explain atavism.
9. Define co-evolution.
10. Distinguish living fossils from fossils.

**Section B**

Answer any **FOUR** questions: 4×10=40 Marks

1. Explain origin of eukaryotes.
2. Write notes on genomatic mutations.
3. Assess the available methods of dating of rocks and fossils .
4. Describe the different categories of animal colouration.
5. Explain evolutionary convergence and parallelism.
6. Hybridization is an evolutionary catalyst. Substantiate

**Section C**

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

1. Discuss Lamarckian principles and neo Lamarckism.
2. Give an account of species, speciation and isolating mechanisms.
3. Describe natural selection and genetic polymorphism.
4. Explain eugenics, euthenics and euphenics.