

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – ZOOLOGY

FIRST SEMESTER – APRIL 2010

ZO 1815 - ADVANCED EVOLUTIONARY BIOLOGY

Date & Time: 29/04/2010 / 1:00 - 4:00 Dept. No.

Max. : 100 Marks

PART A

Answer ALL questions.

(10 x 2=20 marks)

1. Name the evolutionists with the following respected titles:
 - a. Father of evolution idea
 - b. Father of evolutionary tree
 - c. Father of vertebrate palaeontology
 - d. Father of embryology
2. Differentiate neoteny from paedomorphosis.
3. Comment on genetic inertia.
4. Characterise agnostic period.
5. Evaluate Big bang theory.
6. Primival atmosphere lacked free oxygen- Justify
7. What is atavism?
8. What are sibling species?
9. Define the law of adaptive radiation
10. Explain bottleneck effect.

PART B

Answer any FOUR

(4×10=40 marks)

11. Evaluate the contributions of any four Neo Lamarckians.
12. Categorize the available fossil records.
13. Write notes on animal colouration.
14. Hybridization is an evolutionary catalyst – Justify
15. Enumerate human racial variations.
16. Categorize gene mutations and explain their evolutionary significance.

PART C

Answer any TWO

(2×20=40 marks)

17. Discuss Biogenetic law.
18. Elaborate the fossil records of man.
19. Write an essay on genetic polymorphism.
20. Describe the role of isolating mechanisms in speciation.
