

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011 – 12 & thereafter)

SUBJECT CODE: 11ZL/ME/EV53

B.Sc. DEGREE EXAMINATION NOVEMBER 2015
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR ELECTIVE
PAPER : EVOLUTION
TIME : 3 HOURS

MAX. MARKS: 100

SECTION A

ANSWER ALL QUESTIONS

(10X3=30)

1. Define the following:
a) Biogenesis b) Fossilization c) Neoteny
2. Fill in the blanks:
a) _____ is random genetic changes in small populations.
b) The characters developed by animals during their life time in response to environmental changes is called _____.
c) _____ is the first fossil bird exhibiting characters of both reptiles and bird.
3. Explain Geological Time Scale.
4. Choose the correct answer:
a) The ancestor of horse is
i) Seymouria ii) Eohippus iii) Mammoth
b) _____ is a living fossil
i) Limulus ii) Dinosaurs iii) Tribolite
c) Total amount of DNA in the haploid genome is called
i) Cot value ii) Junk DNA iii) C- value
5. State atleast three conditions for mimicry.
6. Differentiate between Lamarckism and Darwinism.
7. State any 3 advantages of molecular data.
8. Differentiate between species and subspecies.
9. Match the following
a) Adaptive Radiation Peripatus
b) Connecting Links Phyllium
c) Mimicry Darwins Finches
10. Define Founder's Principle.

SECTION B

ANSWER ANY FIVE QUESTIONS

(5X6=30)

11. Describe the mechanism of speciation. Add a note on any two patterns of speciation.
12. Write a short note on dating of fossils.
13. Explain the various pattern of animal distribution.
14. Write a note on C-Value Paradox.
15. Define mimicry and explain its types with suitable examples.
16. Comment on the biochemical evolution of the origin of life
17. Explain the mutation theory of DeVeries.

SECTION-C

ANSWER TWO QUESTIONS

(2X20=40)

18. Write a detailed essay on the isolating mechanisms.
19. Describe the evolution of man.
20. Enumerate on the patterns of evolution.
21. Give a general account on the various evidences of evolution.
