

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2019 – 2020 & thereafter)

B.Sc. DEGREE EXAMINATION - NOVEMBER 2023
BRANCH VI.A. ADVANCED ZOOLOGY AND BIOTECHNOLOGY
THIRD SEMESTER

COURSE : MAJOR CORE
PAPER : EVOLUTION
SUBJECT CODE : 19ZL/MC/EV33
TIME : 3 HOURS

MAX. MARKS: 100

SECTION A

ANSWER ALL QUESTIONS: (10 X 3 =30)

1. State the Mutation theory of De Vries.
2. What is the biological species concept?
3. Define Coevolution.
4. Illustrate Genetic Drift.
5. Comment on Molecular Clocks.
6. Distinguish between Convergent and Divergent evolution.
7. Name any three Neo Lamarckians.
8. Highlight the importance of Microevolution.
9. List any three characteristics of Living Fossils.
10. What is a Phylogenetic tree?

SECTION B

ANSWER ANY FIVE QUESTIONS: (5 x 6 = 30)

11. Analyse Neo-Darwinism giving any two examples.
12. Explain the use and disuse theory giving examples.
13. Define the Geological Time Scale and add a note on the eons, eras, periods and epochs of the GTS.
14. Distinguish between actual remains and petrification with suitable examples.
15. Highlight the significant changes that occurred during the evolution of the Horse.
16. Comment on the significance of mimicry and colouration.
17. Discuss the role of geographic isolation in speciation.

SECTION C

ANSWER ANY TWO QUESTIONS: (2 x 20 = 40)

18. Summarise the evidence in support of evolution from the perspective of comparative morphology and biochemistry.
19. Compare and contrast the types of selection with suitable examples.
20. Discuss the types of distribution and methods of dispersal in animals.
21. Analyse the stages in human evolution with reference to the fossil record.
