

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

SUBJECT CODE: 11ZL/ME/EV53

B.Sc. DEGREE EXAMINATION NOVEMBER 2013
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. Fill in the blanks

- a) Population segregated by a geographical barrier is _____ population.
- b) In allopatric speciation the initial barrier to gene flow is _____.
- c) Primitive and first horse is _____ .

2. Match the following

- a) Neopilina - F.Redi
- b) Sewall Wright effect - Theory of population
- c) Biogenesis - Reptile
- d) Oceanic Island - Genetic drift
- e) Malthus - Mollusca
- f) Cotylosaur - Galapagos

3. Choose the correct answer

- a) Industrial melanism is exemplified by
 - i) Peppered moth
 - ii) Zooplankton
 - iii) Lichens
- b) Some moths have large eye spots and its function is
 - i) Camouflage
 - ii) Startle the predator
 - iii) Advertise bad taste
- c) Darwins voyage by ship was named
 - i) HMS Beagle
 - ii) HMS Victoria
 - iii) MHS Beagle

4. State true or false

- a) Concealing mimicry is a type of aggressive mimicry.
 - b) Cromagnon man lived in Europe.
 - c) Angler fish exhibits dummy bait response.
5. List the different types of adaptive radiation in mammals.
6. What is genetic drift?
7. Define Hardy Weinberg's Law.
8. What is C-value paradox?
9. Comment on living fossils.
10. Define Co-evolution.

SECTION B

ANSWER ANY FIVE QUESTIONS

(5X6=30)

11. Give an account of different types of fossils.
12. Describe different vestigial organs and highlight their significance
13. Discuss the criticisms of natural selection theory.
14. Explain Batesian and Mullerian mimicry with examples.
15. Highlight the differences between Molecular and Morphological data.
16. Write a note on sympatric speciation.
17. Give an account of Zoogeographical realms.

SECTION-C

ANSWER TWO QUESTIONS

(2X20=40)

18. Write an essay on Neo Lamarckism.
19. Elaborate on the role of isolating mechanism in speciation.
20. Give an account of fossil history of man and facets of cultural evolution.
21. Tabulate geographical time scale.
