

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2008 - 09)
SUBJECT CODE: ZL/ME/EV54

B.Sc. DEGREE EXAMINATION NOVEMBER 2010
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR ELECTIVE
PAPER : EVOLUTION
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS:

(10 X 3 = 30)

1. FILL IN THE BLANKS

- a) When one species is transformed into another, it is called _____
speciation.
- b) Mutation occurring in the somatic cells is called _____.
- c) _____ is a connecting link between Annelids and Arthropods.

2. MATCH THE FOLLOWING

- | A | B |
|------------------------|------------------|
| i) Industrial Melanism | a) Vestigial |
| ii) Biogenesis | b) Galapagos |
| iii) Isolation theory | c) F. Redi |
| iv) Coccyx in man | d) Wagner |
| v) Threshold selection | e) Neo Darwinism |
| vi) Oceanic island | f) Mayr |

3. CHOOSE THE CORRECT ANSWER

- i) India belongs to the
(a) Palaearctic realm (b) Oriental realm (c) Ethiopian realm
- ii) Gene mutation is otherwise called
(a) Speciation (b) Polymorphism (c) Point mutation
- iii) Adaptive radiation is responsible for
(a) Microevolution (b) Macroevolution (c) Allometry

4. STATE WHETHER THE FOLLOWING ARE TRUE OR FALSE

- a) Elephants originated from Europe.
- b) Pyritization is a process of fossilization, where carbon compounds are deposited.
- c) The theory of biogenesis was proposed by Redi.
5. Define Continental drift.
6. What is atavism? Give an example.
7. Define theory of orthogenesis.
8. What is recombination?
9. Define Hardy – Weinberg law.
10. What is back mutation?

SECTION – B

ANSWER ANY FIVE QUESTIONS:

(5 X 6 = 30)

11. Describe geographic isolation.
12. Describe variation and its types.
13. Give an account on macroevolution.
14. Bring out the differences between molecular data and morphological data.
15. Give an account of horses during Pliocene.
16. Describe the dating of fossils by the radioactive clock method.
17. Explain mutation theory of Hugo de Vries.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 X 20 = 40)

18. Describe in detail the evolution of man as seen in fossil records.
19. Explain adaptive radiation in Darwin's finches.
20. Write an essay on mimicry.
21. Write an essay on speciation and sub speciation.
