

STELLA MARIS COLLEGE (AUTONOMOUS) - CHENNAI 600 086
(For candidates admitted from the academic year 2005 – 2006 & thereafter)

SUBJECT CODE: ZL/MO/EV64

B. Sc. DEGREE EXAMINATION, APRIL 2009
BRANCH VI.A. -ADVANCED ZOOLOGY & BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : MAJOR – OPTIONAL
PAPER : EVOLUTION

TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS: (10 X 3 = 30)

1. FILL IN THE BLANKS

- a) _____ is the place of origin of horse.
- b) When one species is transformed into another, it is called _____ speciation.
- c) Study of fossils is called _____.

2. MATCH THE FOLLOWING

- a) Limulus - Seawall Wright Effect
- b) Industrial Melanism - F. Redi
- c) Peripatus - Horse & Antelope
- d) Parallel Evolution - Neo Darwinism
- e) Genetic Drift - Living fossil
- f) Biogenesis - Onychophora

3. CHOOSE THE CORRECT ANSWER

- a) Adaptive radiation is responsible for
 - i) Allometry ii) Microevolution iii) Macroevolution
- b) The concept of sibling species was introduced by
 - i) Mayr ii) Dobzhansky iii) Waller
- c) India belongs to the
 - i) Palaearctic realm ii) Oriental realm iii) Ethiopian realm

4. **STATE WHETHER THE FOLLOWING ARE TRUE OR FALSE**
- a) Elephants originated from Europe.
 - b) Hugo de Vries formulated the mutation theory.
 - c) The theory of panspermia was proposed by Louis Pasteur.
5. What are coacervates?
6. Define convergent evolution?
7. What is protective colouration?
8. Explain back mutation.
9. Name any 3 biochemical Evidences for evolution
10. Define Hardy – Weinberg law.

SECTION – B

ANSWER ANY FIVE QUESTIONS:

(5 X 6 = 30)

- 11. Write about allopatric speciation.
- 12. Describe the dating of fossils by the radioactive clock method.
- 13. Describe variation and its types.
- 14. Give an account of horses during Pliocene.
- 15. Explain atavism with examples.
- 16. Give an account on macroevolution.
- 17. Describe geographic isolation.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 X 20 = 40)

- 18. Describe in detail the evolution of man as seen in fossil records.
- 19. Write an essay on mimicry and its types.
- 20. Darwin's theory of Natural Selection. Add a note on Neo Darwinism.
- 21. Write an essay on speciation and sub speciation
