

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted from the academic year 2004 – 2005)

SUBJECT CODE: ZL/MC/EV64

B. Sc. DEGREE EXAMINATION, APRIL 2007
BRANCH VI. - ZOOLOGY
SIXTH SEMESTER

COURSE : MAJOR – CORE
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 connecting link between fish and amphibians.
- b) _____ is an evolutionary force operating in small populations.
- c) _____ is a primitive and first horse.

2. MATCH THE FOLLOWING

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

3. CHOOSE THE CORRECT ANSWER

- a) Darwin's finches show
 - i) adaptive radiation ii) Industrial melanism iii) orthogenesis
- b) The British ship that set out for a voyage with Darwin was
 - i) H.M.S. Regal ii) H.M.S. Beagle iii) H.M.S. Victoria
- c) Adaptive radiation is responsible for
 - i) Microevolution ii) Macroevolution iii) Allometry

4. **STATE WHETHER THE FOLLOWING ARE TRUE OR FALSE**

- a) Horses and antelopes are good examples of parallel evolution.
- b) Warning mimicry is exhibited by the monarch butterfly.
- c) Cromagnon man lived in Europe.

5. Explain Baer's law.

6. What are coacervates?

7. Define Hardy Weinberg law.

8. What is orthogenesis?

9. What is protective colouration?

10. Define Sewall Wright effect.

SECTION – B

ANSWER ANY FIVE QUESTIONS:

(5 X 6 = 30)

11. Give an account on the factors influencing speciation.

12. Explain the factors responsible for genetic variations.

13. Discuss the criticisms of natural selection theory.

14. Write about Lamarckism.

15. Describe variation and its types.

16. Write about allopatric speciation.

17. Give an account on macroevolution.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 X 20 = 40)

18. Write an essay on the evolution of elephant.

19. Give an account on species and subspecies.

20. Write an essay on mimicry.

21. Elucidate the evolution of man based on fossil records.
