

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY**

**FOURTH SEMESTER – APRIL 2016**

**AZ 4504 – EVOLUTION**

Date: 22-04-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART – A**

Answer **ALL** questions:

(10 x 2 = 20 marks)

1. Define Pangenesis.
2. What is Sewall – Wright effect?
3. Distinguish between convergent and divergent evolution.
4. Comment on Industrial melanism.
5. What are connecting links? Give their evolutionary significance.
6. List the various adaptations found among placental mammals.
7. Define Hardy-Weinberg Law.
8. List the characteristic features of Java man.
9. What does the term Eugenics mean?
10. What are coprolites? Mention their significance.

**PART – B**

Answer any **FOUR** of the following questions:

(4 x 10 = 40 marks)

11. Write notes on the primitive earth and the conditions which led to the origin of life.
12. “The living fossils occupy a very significant but pitiable position in the evolutionary fabric of animals” – Justify.
13. With examples explain how mimicry and colouration is an adaptive device in animals for a better chance of survival.
14. Explain the Mutation Theory of De Vries and its significance in evolution.
15. List the different eras on the Geological time scale and add a note on the significance of any two eras.
16. Explain Lamarckism.

**PART – C**

Answer any **TWO** of the following questions:

(2 x 20 = 40 marks)

17. Briefly discuss the morphological and anatomical evidences in favour of organic evolution.
18. Give an account on Modern Synthetic Theory of Natural Selection.
19. Explain the evolution of Horse in detail.
20. What is speciation? Briefly explain the different modes and factors of speciation.

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