# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

### DEGREE EXAMINATION - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FOURTHSEMESTER - APRIL 2017

#### AZ 4504- EVOLUTION

Date: 25-04-2017 Dept. No. Max.: 100 Marks

Time: 09:00-12:00

#### PART A

## Answer ALL questions, each in a few words (10X2=20 Marks)

- 1. What is HMS beagle?
- 2. Define the theory of Pangenesis.
- 3. What is Sewall Wright effect?
- 4. Comment on cosmozoic theory.
- 5. What is meant by premating isolating mechanism?
- 6. Define convergent evolution.
- 7. Comment on Myrmecophagous type of dentition.
- 8. Give the significance of Australopithecus.
- 9. What is stratigraphy?
- 10. Define Orthogenesis.

#### PART B

## Answerany FOUR questions, each in about two pages

(4X10=40 Marks)

- 11. Explain Urey-Miller experiment.
- 12. Write notes on Human Genome Project.
- 13. Give an account on Lamarckism.
- 14. Describe the dating of fossils and their significance.
- 15. Explain homologous and analogous organs with examples.
- 16. Write notes on Convergence and Parallelism.

#### PART C

# Answer any TWO QUESTIONS, each in about four pages(2X 20 = 40 Marks)

- 17. What is Speciation? Explain the different modes of speciation.
- 18. Write an essay on Eugenics.
- 19. Give a detailed account of Colouration and Mimicry.
- 20. Discuss the adaptive radiation in reptiles.

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