# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

### DEGREE EXAMINATION - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SIXTHSEMESTER - APRIL 2017

#### AZ 6603- ENVIRONMENTAL BIOTECHNOLOGY

Date: 20-04-2017 Dept. No. Max.: 100 Marks

Time: 09:00-12:00

#### PART - A

#### Answer ALL the questions.

10x2 = 20 Marks

- 1. Biofuels
- 2. Biological indicators.
- 3. Lyophilization.
- 4. Fermentation.
- 5. Coagulation.
- 6. Immobilization
- 7. Xenobiotics.
- 8. Bioaugmentation.
- 9. Plasmids.
- 10. Synergism.

### PART-B

## Answer any FOUR questions.

4x10 = 40 Marks

- 11. Give an account on activated sludge system.
- 12. Explain in detail on tertiary treatment.
- 13. Describe methanogenesis.
- 14. Explain the design of bioreactor.
- 15. Write short notes on: Thiobacillus ferroxidans and Thiobacillus thio oxidans.
- 16. Explain the process of sewage treatment.

## PART-C

# Answer any TWO questions. 2x20 = 40 Marks

- 17. Discuss in detail ethanol production.
- 18. Explain in detail on biosensors and their types.
- 19. Explain anaerobic digestion and discuss the digestion process.
- 20. Discuss bioleaching and its application.

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