# STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI -600 086

(For candidates admitted during the academic year 2015–2016 & thereafter)

## M. Sc. DEGREE EXAMINATION, APRIL 2018 FOURTH SEMESTER

: ELECTIVE **COURSE** 

**PAPER** : ENVIRONMENTAL BIOTECHNOLOGY

TIME : 3 HOURS MAX. MARKS: 100

#### SECTION - A

## ANSWER ALL THE QUESTIONS

 $(20 \times 1 = 20)$ 

**SUBJECT CODE: 15BY/PE/ET14** 

- 1. What is Bioleaching?
- 2. What is Bioremediation?
- 3. What is Biodegredation?
- 4. What is Bioreactor?
- 5. What is Biochemical oxygen demand?
- 6. What is the source of air pollutants?
- 7. What is Bio monitoring?
- 8. Write disinfection of sludge
- 9. What is E-waste?
- 10. Name two enzymes which facilitate pulp bleaching.
- 11. What are viral pesiticides?
- 12. What are the wastes? How they can be used as renewable source of energy.
- 13. Write the types of Biosensors.
- 14. Name two Geneticaly modified organisms used in waste management?
- 15. What is the metagenomics?
- 16. What is phytoremediation?
- 17. What is Biofuel?
- 18. What is Biohydrogen?
- 19. What is vermiculture?
- 20. What is Biofertilizer?

#### SECTION - B

# ANSWER ANY FOUR QUESTIONS IN ABOUT 600 WORDS

 $(4 \times 10 = 40)$ 

- 21. Explain the types of Bioremediation methods.
- 22. Write the classification of air pollutants.
- 23. How are paper and pulp waste are effectively treated?
- 24. Explain on Genetic sensors.
- 25. How is Biomass converted into a source of energy.
- 26. Explain Vermiculture process.
- 27. How is wastewater treated by Anerobic digestion?

#### SECTION - C

## ANSWER ANY TWO QUESTIONS IN ABOUT 1500 WORDS

 $(2 \times 20 = 40)$ 

- 28. Explain Biodegradation of aliphatic and aromatic hydrocarbons and halogenated compounds.
- 29. Explain activated sludge process.
- 30. Explain (a) Solid waste material (b) Radioactive waste and nuclear waste material are safely removed from the environment.
- 31. Explain the production of Bioethanol and Biohydrogen.

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