

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011– 12 & thereafter)

SUBJECT CODE: 11BY/PE/EB34

M. Sc. DEGREE EXAMINATION, NOVEMBER 2012
BIOTECHNOLOGY
THIRD SEMESTER

COURSE : ELECTIVE

PAPER : ENVIRONMENTAL BIOTECHNOLOGY

TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS.

20x 1 = 20

DEFINE / EXPLAIN THE FOLLOWING.

1. Biodiversity
2. Half life period
3. SPM
4. Radio nucleotides
5. Name the green house gases
6. MPN
7. *Anabena cylindrical*
8. Gasification
9. Activated sludge
10. Hazardous waste
11. Composting
12. Denitrification
13. Carcinogens
14. Ames test
15. Mutagen
16. Degradative plasmids
17. Bioaugmentation
18. Biomining
19. PCB degradation
20. Phytoremediation

SECTION – B

ANSWER ANY FOUR QUESTIONS, EACH WITHIN 600 WORDS. (4 x 10 = 40)

21. Discuss ozone as a pollutant and non-pollutant.
22. Production of biogas from human and animal waste.
23. Production of ethanol from micro organisms using cellulosic waste.
24. Treatment of paper waste.
25. Write short notes on bio indicators.
26. Define molecular recalcitrance and Factors causing molecular recalcitrance.

SECTION – C

ANSWER ANY TWO QUESTIONS, EACH WITHIN 1500 WORDS. (2 x 20 = 40)

27. Give an account of green house gases and their sources.
28. Describe primary, secondary and tertiary treatment employed for treating wastewaters with sketch?
29. Comment on
 - a) Biofilters and its use in water treatment
 - b) Bioconversions
30. Explain engineering strategies of bioremediation.
