

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2012

(CCSS)

Biotechnology – Complementary Course

BT 4C 02 – ENVIRONMENTAL BIOTECHNOLOGY

Maximum : 30 Weightage

Time : Three Hours

I. Objective Type Questions. Answer *all* questions :

Match the following :

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|--------------------------------|---|
| 1. Torry canyon | (i) Adsorption. |
| 2. Minamata disease | (ii) Xenobiotic . |
| 3. Morinaga | (iii) sulfite waste liquor. |
| 4. Itai-Itai | (iv) <i>Streptococcus faecalis</i> . |
| 5. Plumhista | (v) Phanerochaete <i>chrysosporium</i> |
| 6. White rot fungus | (vi) Alcaligenes <i>eutrophus</i> . |
| 7. PHB | (vii) Cadmium intoxication. |
| 8. SCP | (viii) Lead toxicity. |
| 9. Indicator organism | (ix) Senecio <i>Senecio</i> . |
| 10. Paper industry | (x) Arsenic poisoning. |
| 11. DDT | (xi) Mercury poisoning. |
| 12. Biofilm | (xii) oil tanker accident. |

(12 x 1/4 = 3 weightage)

II. Short Answer Type Questions. Answer any *nine* questions :

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|--|---------------------------------------|
| 13. Lignocellulosic wastes. | 14. Pesticide degrading bacteria. |
| 15. Bioscrubbers . | 16. Phenol degraders. |
| 17. Biolac . | 18. Application of distillery wastes. |
| 19. Air pollution. | 20. Heavy metal pollution. |
| 21. Oil pollution. | |

(9 x 1 = 9 weightage)

Turn over

III. Short essay *or* paragraph questions. Answer any *five* questions

22. What are the different sources of pollution?
23. Explain how pesticide waste can be disposed.
24. 'Dark side of **bioplastics**' – Explain.
25. Explain the importance of **SCP**.
26. What are the methods of whole cell immobilization?
27. What are the **biotreatment** methods for dye wastes?
28. Explain the environmental impact of tannery effluents.

IV. Essay questions. Answer any *two* out of three :

(5 x 2 = 10 weight)

29. **Bioplastics**.
30. Waste treatment using aquatic plants.
31. Biomass from Waste.

(2 x 4 = 8 weight)