C 43556	(Pages:2)	Name
		Reg. No

## FIRST SEMESTER B.Sc. DEGREE EXAMINATION JULY 2013

(CCSS)

## Biotechnology

## BT 1C 03 – ENVIRONMENTAL BIOTECHNOLOGY

Time : Three Hours Maximum : 30 Weightage

I. Objective type questions. Answer all twelve questions:

State whether True or False:

- 1. Caliciviruses are enteroviruses.
- 2. Rhizophus sp. is a symbiotic bacteria.
- 3. Desulfovibrio is not a sulfate reducing bacteria.
- 4. P-dimethyaminobenzaldehyde is used in the red ring test.
- 5. Fecal streptococci are indicators of pollution.
- 6. Vigorous aeration of sewage results in flocculation.
- 7. The zoogleal film is formed due to adsorption process.
- 8. The more oxidizable the organic matter the higher the BOD.
- 9. Coliforms do not give gas formation in BGLB.
- 10. E.coli are gram negative bacteria.
- 11. Rhodospirillum is a purple non-sulfur bacteria.
- 12. Thiobacillus thiooxidans are heterotrophic bacteria.

12 x = 3 weightage

- II. Short answer type questions. Answer all *nine* questions:
  - 13. Biomagnifications.
  - 14. Bioaccumulation.
  - 15. Composting.
  - 16. Citrate test.
  - 17. Standard plate count.
  - 18. Denitrification.

Turn over

- 19. Sulfur oxidizers.
- 20. Ecosystems.
- 21. EPA.

 $(9 \times 1 = 9 \text{ weightage})$ 

- III. Short essay or Paragraph questions. Answer any five from seven:
  - 22. Symbiotic nitrogen fixation.
  - 23. Chlorination.
  - 24. Coliform group.
  - 25. Membrane filter technique.
  - 26. Advanced treatment.
  - 27. Activated sludge.
  - 28. Water quality management.

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 $(5 \times 2 = 10 \text{ weightage})$ 

- IV. Essay questions. Answer any two from three:
  - 29. Carbon cycle.
  - 30. Bacteriological examination of water.
  - 31. Pollution management.

 $(2 \times 4 = 8 \text{ weigh age})$