

**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. **Rhizopus** 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 **zooglear** 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 x 1 = 9 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.

(11)

(5 x 2 = 10 weightage)

IV. Essay questions. Answer any *two* from three :

29. Carbon cycle.
30. Bacteriological examination of water.
31. Pollution management.

(2 x 4 = 8 weightage)