

D 91070

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Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

(UG-CCSS)

Core Course—Microbiology

MB 5B 14—ENVIRONMENTAL AND SANITATION MICROBIOLOGY

Time : Three Hours

Maximum : 30 Weightage

Section A

Answer all twelve questions.

Each question carries $\frac{1}{4}$ weightage.

1. *Escherichia coli* is an _____ organism of water pollution.
2. Pollutants which are manmade synthetic molecules are called _____
3. Brilliant Green Lactose Bile broth is a medium used in _____ test of water quality analysis.
4. Soil immediately around the root is called _____
5. Out of the four steps in the methane generation _____ is the step immediately before methanogenesis.
6. Expand TDS, term used in waste water character.
7. Amensalism is a _____ interaction.
8. *Azotobacter* is a free living _____ fixing bacteria.
9. The form of nitrogen that is most usable by the plant is _____
10. *Zooglyphis* is a slime forming bacteria seen in _____ systems.
11. Formation of "infection thread" in certain root hairs is due to bacteria _____
12. Growth of algae is promoted in oxidation pond to improve _____ content of water.

(12 x $\frac{1}{4}$ = 3 weightage)

Section B

Answer all the nine questions in one or two sentences.

Each question carries 1 weightage.

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|-------------------------|----------------------|
| 13. Compensation level. | 14. Bio leaching. |
| 15. Slit sampler. | 16. Infectious dust. |
| 17. Lithosphere. | 18. Predation. |
| 19. Secondary consumer. | 20. Halotolerants. |
| 21. Antibiosis. | |

(9 x 1 = 9 weightage)

Turn over

Section C

Answer briefly on any five questions.

Each question carries 2 weightage.

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|-----------------------|-------------------------|
| 22. Phosphorus cycle. | 23. Bioremediation. |
| 24. Vermicomposting. | 25. Denitrification. |
| 26. BOD. | 27. Sanitary Landfills. |
| 28. Septic tank. | |

(5 x 2 = 10 weightage)

Section D

Answer briefly any two questions.

Each question carries 4 weightage.

29. What is meant by presumptive coliform count ? Discuss the qualitative methods of water quality analysis.
30. Discuss briefly about the negative interactions of microbial populations in soil.
31. Discuss briefly about air borne diseases.

(2 x 4 = 8 weightage)