

D 71081

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Name

Reg. No.

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2014

(UG—CCSS)

Core Course—Microbiology

MB 5B 14—ENVIRONMENTAL AND SANITATION MICROBIOLOGY

Time : Three Hours

Maximum : 30 **Weightage**

Section A

*Answer **all** the **twelve** questions.
Each question carries $\frac{1}{4}$ **weightage**.*

1. The most common microbial contaminant of air is _____
2. The disease which is transmitted through drinking contaminated water is _____
3. The form of nitrogen which can be used by plants is _____
4. The micro-organisms that are primary symbiotic nitrogen fixers are members of the genus _____
5. The form of sulfur most usable by both micro-organisms and plants is _____
6. Anaerobic spore bearing soil micro-organism which is a pathogen for humans and animals which belongs to the **genus** _____
7. The reservoir of nitrogen in earth is _____
8. An obligatory association between two species that is beneficial to both population is _____
9. **Phytoalexins** are _____
10. **Heterocyst** is found in _____
11. **Diazototrophs** are _____
12. Ammonia oxidising bacteria are _____

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

Section B

*Answer **all** the **nine** questions in **one or two** sentences.
Each question carries 1 **weightage**.*

Comment on :

- | | |
|---------------------------------|--------------------------------|
| 13. Bioaugmentation. | 14. Rhizosphere effect. |
| 15. Antibiosis. | 16. Indicator organisms. |
| 17. Landfill. | 18. EMB agar. |
| 19. Sources of microbes in air. | 20. Super bug. |
| 21. Eutrophication. | |

x 1 = 9 **weightage**)

Turn over

Section C

*Answer briefly any **five** questions.
Each question carries **2** weightage.*

22. Nitrogen cycle.
23. BOD.
24. Vermicomposting.
25. Xenobiotic metabolism.
26. Microbiological sampling of air.
27. Micro-organisms of marine water systems.
28. Microbial leaching.

(5 x 2 = 10 weightage)

Section D

*Answer any **two** of the following.
Each question carries **4** weightage.*

29. Elaborate on waste water treatment strategies.
30. Explain the types of interaction of micro-organisms in soil and their significance.
31. Describe in detail the role of micro-organisms in **bioremediation**.

(2 x 4 = 8 weightage)