

D 30721

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Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, OCTOBER 2012

(CCSS)

Microbiology

MB 5B 14—ENVIRONMENTAL AND SANITATION MICROBIOLOGY

Time : Three Hours

Maximum : 30 **Weightage**

Section A

*Answer all the **twelve** questions.*

1. Composting of waste using earth worm is known as _____
2. All sulfate reducing bacteria are classified as _____
3. **BOD** is a measure of the presence of _____ wastes.
4. The stage of sewage treatment in which micro-organisms are involved is _____
5. Example for a free living nitrogen fixer is _____
6. Red iron containing protein which has a role in Nitrogen fixation is _____
7. Full form of COD is _____
8. Association of **Cyanobacteria** and **Anabena, Azolla** is an example of _____.
9. _____ is named as super bug.
10. Fecal **coliform** produce a _____ on **EMB** agar.
11. Musty or Earthy odour of freshly ploughed field is due to _____
12. Media used for the complete test for water analysis is _____

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

Section B

*Answer all the **nine** questions in one or two sentences.*

Comment on :

13. DO.
14. **Halophilic** bacteria.
15. Antagonism.
16. **Bioventing**.
17. **Endophytic** bacteria.
18. Lithosphere.
19. Plant growth promoting micro-organisms.
20. **Nif** genes.
21. **VAM**.

(9 x 1 = 9 **weightage**)

Turn over

Section C

*Answer briefly any **five** questions.*

Write short notes on :

22. Degradation of hydrocarbons.
23. Role of microbes in metal corrosion.
24. Microbial tests checking potability of water.
25. Trickling filters.
26. Airborne transmission of harmful microbes.
27. Microbial examination of air.
28. Biosphere.

(5 x 2 = 10 weightage)

Section D

*Answer any **two** questions in detail.*

29. Explain the different strategies for solid waste management giving special importance to microbial methods.
30. Symbiotic nitrogen fixation with example explaining the mechanism and process of nitrogen fixation.
31. Write an account on air borne micro-organisms, principles and techniques of air sampling.

(2 x 4 = 8 weightage)