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Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, May 2021
Career Related First Degree Programme Under CBCSS
Group 2(a) : Biochemistry and Industrial Microbiology
Vocational Course V

IM 1471 – ENVIRONMENTAL MICROBIOLOGY
(2015 – 2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. Answer in a word to a maximum of two sentences. Each question carries 1 mark.

1. What is heavy metal?
2. What is "Cess Pool"?
3. What is source of petroleum?
4. Give any one example of non-symbiotic microorganism.
5. How Azospirillum is important microbe?
6. What are extreme environments?
7. Explain "Blight of Sorghum"
8. What is decomposition?

P.T.O.

9. Define organic manure.

10. What is haustorium?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. Answer not exceed one paragraph. **Each** question carries **2** marks.

Comments On

11. Solid waste.

12. Detergents.

13. Lignin.

14. Autotrophs

15. Ectomycorrhizae

16. Blight disease

17. Edaphic factors

18. Imhoff tank

19. Sulphur reducing bacteria

20. Minimum inhibitory concentration

21. Trace elements

22. Nitrogen cycle

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** questions. Answer not to exceed **120** words. **Each** question carries **4** marks.

23. Discuss the microbial role in ecosystems functioning.
24. Write about the liquid waste treatment methods.
25. Discuss the lignolytic microorganisms.
26. Write about rhizosphere microorganisms.
27. Explain the fertility soils.
28. What are factors promote the bacterial disease?
29. Give an account of endomycorrhizae.
30. Give an economic importance of "Bunchy top of banana".
31. Explain the Nz- fixing actinomycete.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions. **Each** question carries **15** marks.

32. Explain in detail about bacterial life in extreme environments and effects.
33. What are the biotechnological methods to apply in waste treatments? Explain with examples.
34. Illustrate in detail about microbial transformation.
35. Give an account on mass production and field applications of Rhizobium and Azotobacter.

(2 × 15 = 30 Marks)