

C 80922-B

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2020**

Microbiology

MBG 4B 04—SOIL AND AGRICULTURAL MICROBIOLOGY

(2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Draw diagrams wherever necessary

Section A

Answer all questions.

Each question carries ½ marks.

1. Name one bacteria oxidizing ammonium to nitrite.
2. The angular leaf spot of cotton is caused by ———.
3. The luminescent bacterial species in marine environment are grouped under ——— genera.
4. Define amensalism
5. The soil type that has smallest particle size and good water storage qualities is ———.
6. What is Hartignet ?
7. Differentiate parasitism and predation.
8. What is rhizoplane ?
9. What is biological weathering ?
10. What is nematophagy ?
11. Name a free living nitrogen fixing bacteria.
12. What are biofilms ?

(12 × ½ = 6 marks)

Section B

Answer all questions.

Each question carries 2 marks

13. How soil inhabiting fungi are different from root inhabiting fungi ?
14. What are phosphatases ?

Turn over

15. What is the aim of soil fertility test ?
16. Describe endoparasites with an example.
17. What is the use of Bordeaux mixture ?
18. Write on Nod factors.
19. What are endophytes ?
20. What is protoco-operation ?
21. Write on red rot of sugarcane.
22. Differentiate clay and sandy soil.

(10 × 2 = 20 marks)

Section C

*Write short notes on any six questions.
Each question carries 5 marks.*

23. Soil microflora.
24. Carbon cycle.
25. Microbial interactions between populations.
26. Ruminant microflora in animals and its significance.
27. Papaya ring rot disease.
28. Azolla-Anabaena interaction.
29. Effect of pesticides on soil microflora.
30. Role of micro-organisms in biogeochemical cycles.

(6 × 5 = 30 marks)

Section D

*Write essay on any two questions.
Each question carries 12 marks.*

31. Write a note on rhizosphere effect.
32. Write a note on biopesticides. Discuss the advantages and disadvantages of biopesticides over chemical pesticides.
33. Write a etiology, symptoms and management of early blight of potato and bacterial blight of rice

(2 × 12 = 24 marks)