

S.No. 2002

12UMB07

(For the candidates admitted from 2012-2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Sixth Semester

Microbiology

SOIL AND AGRICULTURAL MICROBIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Rhizospher.
2. Soil pH.
3. Humus.
4. Hydrogenase.
5. Amensalism.
6. VAM.
7. Blight of rice.

8. Red rot.
9. YEMA.
10. Nostoc.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe about the soil structure.
Or
(b) Discuss the factors affecting soil microbes.
12. (a) Give an account on commensalisms.
Or
(b) Write short note on symbiosis.
13. (a) Briefly write about phosphorous cycle.
Or
(b) Illustrate the role of nitrogenase enzyme in N₂ fixation.
14. (a) Give an account on Tikka disease.
Or
(b) Explain about citrus canker disease.

15. (a) Write short note on Azotobacter.

Or

- (b) Briefly explain the method of Azolla Cultivation.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the significance of soil microbes in improving soil fertility.
17. Illustrate the module formation by Rhizobium species.
18. Explain in detail about mycorrhizal fungal interaction with plant root.
19. Discuss in detail about wilt disease of cotton.
20. Give elaborate note on mass cultivation of cyanobacteria.