



**K19U 0132**

Reg. No. : .....

Name : .....

**VI Semester B.Sc. Degree (CBCSS – Reg./Supple./Improv.)**

**Examination, April 2019**

**(2014 Admission Onwards)**

**CORE COURSE IN MICROBIOLOGY**

**6B17 MCB : Agricultural Microbiology and Plant Pathology**

Time : 3 Hours

Max. Marks : 40

**Instruction :** Draw diagrams *wherever necessary*.

**SECTION – A**

Answer **all** questions. **Each** question carries 1 mark.

1. The hard and rigid outer layer of earth is called \_\_\_\_\_
2. Group of bacteria that colonize rhizosphere soil and beneficial to crops are referred as \_\_\_\_\_
3. The causative agent of rhizome rot of ginger is \_\_\_\_\_
4. The only family of enzymes known to catalyze the reduction of  $N_2$  to  $NH_3$  is \_\_\_\_\_ (4×1=4)

**SECTION – B**

Answer **any seven** questions of the following. **Each** question carries 2 marks.

5. Humus
6. R : S ratio
7. Hartig net
8. Dinitrogenase reductase
9. Morphological resistance of plants to acquire infection
10. R genes
11. *Cercospora capsici*

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- 12. Biopesticides
- 13. NOD genes
- 14. Pink disease of rubber.

(7×2=14)

SECTION – C

Answer **any four** questions of the following. **Each** question carries **3** marks.

- 15. Bacterial flora of soil
- 16. Production of *Rhizobium* inoculants
- 17. Rhizosphere effect
- 18. Free living nitrogen fixing organisms
- 19. Control of plant diseases using chemical agents
- 20. Bud rot of Arecanut.

(4×3=12)

SECTION – D

Answer **any two** questions of the following. **Each** question carries **5** marks.

- 21. Discuss the beneficial effects of symbiotic and non-symbiotic association of microbes with plants. Write a note on soil fungi.
- 22. Discuss the classification of mycorrhizae. Write on the significance of mycorrhizae in agriculture.
- 23. Write a note on biocontrol agents used for management of plant diseases.
- 24. Discuss the etiology, symptoms, epidemiology and control measures of quick wilt in pepper and grey leaf blight of coconut.

(2×5=10)

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