Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **17AG1002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **AGRICULTURAL MICROBIOLOGY** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (20 X 1 = 20 MARKS)** | | | |
| 1. | Who discovered Microscope? | CO1 | 1 |
| 2. | Define pasteurization. | CO1 | 1 |
| 3. | What is a bactericidal agent? Give one example. | CO1 | 1 |
| 4. | Define Growth. | CO1 | 1 |
| 5. | Define biofertilizer. | CO1 | 1 |
| 6. | Define nitrification. | CO2 | 1 |
| 7. | What is Mycorhiza? | CO2 | 1 |
| 8. | What are Bioplastics? | CO2 | 1 |
| 9. | Name the inoculants used in curd preparation. | CO2 | 1 |
| 10. | Define biosensor. | CO2 | 1 |
| 11. | \_\_\_\_\_\_\_\_\_\_ bacteria has symbiotic association with plant roots. | CO1 | 1 |
| 12. | \_\_\_\_\_\_\_\_\_\_ is widely used as a nitrogen fixer in paddy fields. | CO1 | 1 |
| 13. | Name a biopesticide. | CO1 | 1 |
| 14. | \_\_\_\_\_\_\_\_\_\_ produces Bt toxin. | CO1 | 1 |
| 15. | Give an example of asymbiotic nitrogen fixer. | CO3 | 1 |
| 16. | Define immobilization. | CO3 | 1 |
| 17. | \_\_\_\_\_\_\_\_\_\_ nutrient affects nitrogen cycle. | CO3 | 1 |
| 18. | Transformation refers to \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 19. | Name a plant virus that has RNA as its genome. | CO3 | 1 |
| 20. | \_\_\_\_\_\_\_\_\_\_ ia a Capsid. | CO3 | 1 |

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| **PART – B (10 X 5 = 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Comment on Germ theory. | CO1 | 5 |
| 22. | Describe Prokaryotic cell structure and function. | CO1 | 5 |
| 23. | Describe Growth curve. | CO1 | 5 |
| 24. | Define Transposons and episomes. | CO1 | 5 |
| 25. | State the benefits of soil microorganisms. | CO1 | 5 |
| 26. | Illustrate Carbon cycle with a neat sketch. | CO2 | 5 |
| 27. | Breifly describe the production process of bacterial fertilizers. | CO2 | 5 |
| 28. | Bioluminescence process in bacteria - Explain. | CO2 | 5 |
| 29. | Comment on phyllosphere bacteria. | CO2 | 5 |
| 30. | Write a short note on Bt toxins. | CO3 | 5 |
| 31. | Elaborate the role of biosensors in agriculture. | CO3 | 5 |
| 32. | Sulphur cycle- Explain digramatically with relevant equations. | CO3 | 5 |

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| **PART – C (2 X 15 = 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Explain the process of Replication. | CO1 | 7 |
| b. | With a neat sketch, explain the process of generalized transduction. | CO2 | 8 |
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| 34. | a. | Describe Nitrogen cycle. | CO2 | 7 |
| b. | Comment on Troot nodule formatiom. | CO3 | 8 |
|  |  |  |  |  |
| 35. | a. | Explain in detail the Bioremediation application in Agriculture. | CO3 | 8 |
| b. | Explain F plasmid recombination. | CO3 | 7 |