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**End Semester Examination – Nov/Dec – 2018**

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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(20X1=20 MARKS)** | | |
| 1. | Who is the father of soil microbiology? | | CO1 | 1 |
| 2. | Who postulated the germ theory? | | CO1 | 1 |
| 3. | What is a fungicidal agent? Give one example. | | CO1 | 1 |
| 4. | Define fermentation. | | CO1 | 1 |
| 5. | Define bioremediation | | CO1 | 1 |
| 6. | Explain denitrification | | CO2 | 1 |
| 7. | What is VAM? | | CO2 | 1 |
| 8. | What are green plastics? | | CO2 | 1 |
| 9. | Name the inoculants used in yoghurt preparation | | CO2 | 1 |
| 10. | Define potentiometric biosensor. | | CO2 | 1 |
| 11. | Rhizobium has symbiotic association with----------------- | | CO1 | 1 |
| 12. | Azolla is widely used as a nitrogen fixer in------------ | | CO1 | 1 |
| 13. | Name a fungal pesticide. | | CO1 | 1 |
| 14. | *Bacillus thurungiensis* produces--------------- | | CO1 | 1 |
| 15. | Give an example of free living nitrogen fixer | | CO3 | 1 |
| 16. | Define Humus. | | CO3 | 1 |
| 17. | What is the ratio of C:N in compost | | CO3 | 1 |
| 18. | Prophase refers to------------------ | | CO3 | 1 |
| 19. | Name a plant virus that has DNA as its genome | | CO3 | 1 |
| 20. | -------------------- is aVirion | | CO3 | 1 |

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|  | | **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | |
| 21. | Comment on spontaneous generation theory. | | CO1 | 5 |
| 22. | Explain eukaryotic cell structure and function | | CO1 | 5 |
| 23. | Describe the structure of bacteriophages | | CO1 | 5 |
| 24. | Define viroids and prions | | CO1 | 5 |
| 25. | State the benefits of genetically modified organisms | | CO1 | 5 |
| 26. | Illustrate nitrogen cycle with a neat sketch | | CO2 | 5 |
| 27. | Briefly describe the production process of biofertilizers. | | CO2 | 5 |
| 28. | Biogas production- Explain | | CO2 | 5 |
| 29. | Comment on PGPR | | CO2 | 5 |
| 30. | Write a short note on microbial insecticides | | CO3 | 5 |
| 31. | Elaborate the role of microbes in spoilage of food. | | 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 conjugation | CO1 | 7 |
| b. | | With a neat sketch explain the process of transduction | CO2 | 8 |
| 34. | a. | | Describe Carbon cycle | CO2 | 7 |
| b. | | Comment on MPN Technique | CO3 | 8 |
| 35. | a. | | Biosensor- Application in Agriculture | CO3 | 8 |
| b. | | Explain lytic and Lysogeny cycle. | CO3 | 7 |