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

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**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **15BT3005** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MICROBIAL TAXONOMY AND PHYLOGENY** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Discuss the working and principle of any two light microscopes and their applications. | CO1 | 20 |
| (OR) | | | | |
| 2. | a. | Elaborate the important events in the development of microbiology. | CO1 | 15 |
| b. | Infer the concept of lenses and the bending of light in microscopy. | 5 |
|  |  |  |  |  |
| 3. |  | Elucidate the structure and functions of various organelles in a prokaryotic cell. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Discuss the prokaryotic diversity in detail with neat diagrams. | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | Explain the process of bacterial endospore formation. | CO4 | 10 |
|  | b. | Explain about MEGA and PHYLIP briefly. | CO4 | 10 |
| (OR) | | | | |
| 6. |  | Explain about the modern system of classification. How molecules phylogeny is useful in bacterial classification? | CO4 | 20 |
|  |  |  |  |  |
| 7. |  | Differentiate bacteria based colony morphology, media, and nutritional requirements with suitable examples. | CO5 | 20 |
| (OR) | | | | |
| 8. |  | Demonstrate the Working and Principle of TEM with a neat diagram. | CO1 | 20 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Construct Phylogenetic trees using any Software you have learnt and differentiate the efficacy with respect to outputs given by them. | CO3 | 20 |

ALL THE BEST