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

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

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| **Code :** | **15BT3006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MOLECULAR MICROBIOLOGY** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
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| **Q. No.** |  | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Discuss in detail of a Prokaryotic Genome Organization. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Describe in detail the Gene transfer methods that occur in Prokaryotes (Bacteria) for the Phenomenon of Recombination, as a tool in Molecular Biology. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Outline the significance of various enzymes involved in DNA replication process. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Explain in detail of DNA Replication in *E.coli* with a neat diagram. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Summarize the historical perspective and early evidences to show that DNA is the genetic material. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Elaborate the processes of Transcription and Translation in Prokaryotes with neat diagrams. | CO2 | 20 |
|  |  |  |  |  |
| 7. |  | Elucidate the concepts of the Genetic Code and RNA Splicing in Prokaryotes with neat diagrams. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Infer the significance of Cloning and Gene Expression from the research done by Latham, 2005 and Wheeler*et. al.,* 2008. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Discuss in detail the Lactose and Tyrptophan Operon models in Prokaryotes with neat illustrations. | CO3 | 20 |

ALL THE BEST