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



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

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| **Code : 17BT2015** |  | **Duration :** | **3hrs** |
| **Sub. Name : MOLECULAR BIOLOGY** |  | **Max. Marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1 | a | Discuss in detail about the structural organization of prokaryotic and eukaryotic Genome. | CO1 | 15 |
| c | Write a brief note on Nucleosome. | CO1 | 5 |
| (OR) | | | | |  |  | CO1 |
| 2 | a | Describe with necessary illustrations about Griffith’s Transformation Principle. | CO1 | 10 |
| b | Explain the types transduction in prokaryotes. | CO2 | 10 |
|  |  |  |  |  |
| 3 | a | Describe about the modes of DNA replication and prove it with experimental models that the replication of DNA is Semi conservative. | CO4 | 10 |
| b | Discuss the mechanism of the enzymes involved in Prokaryotic DNA replication. | CO3 | 10 |
| (OR) | | | | |  |  | CO2 |
| 4 |  | Discuss in detail about DNA repair mechanism with suitable examples. | CO4 | 20 |
|  |  |  |  |  |
| 5 |  | Explain in detail about the process involved in the transcription in Prokaryotes. | CO3 | 20 |
| (OR) | | | | |
| 6. | a | Enumerate the importnance of enhancers and transcription factors in eukaryotic transctiption. | CO5 | 10 |
| b | Discuss in detail about post transcriptional modification in eukaryotes. | CO5 | 10 |
|  |  |  |  |  |
| 7. | a | Discuss in detail about the post translation modifications in Prokaryotes. | CO1 | 10 |
| b | Explain about the inhibitors of prokaryotic translation. | CO2 | 10 |
| (OR) | | | | |
| 8. |  | Discuss in detail about the translation process in eukaryotes. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9 |  | Illustrate with neat diagrams and discuss about Lac and trp Operon. | CO6 | 20 |