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

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

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| **Code :** | **14BI2003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MOLECULAR BIOLOGY AND GENETIC ENGINEERING** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Describe in detail about the replication in Prokaryotes. | CO2 | 20 |
| (OR) | | | | |
| 2. | a. | Explain D loop and rolling circle model of replication. | CO2 | 10 |
| b. | Discuss DNA repair mechanism. | CO2 | 10 |
|  |  |  |  |  |
| 3. |  | Explain in detail about prokaryotic transcription. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Describe with neat illustrations about Lac and Trp Operon concepts. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Discuss in detail about exo and endo nucleases with suitable examples. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | Write in detail about the principle, role of chemicals and steps involved in PCR and discuss its types and applications. | CO2 | 20 |
|  |  |  |  |  |
| 7. | a. | Name and explain a blotting technique to detect protein sample. | CO2 | 10 |
| b. | Write an elaborate note on Southern blotting. | CO2 | 10 |
| (OR) | | | | |
| 8. |  | Discuss in detail about Trangenic plants with suitable examples. | CO1 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Write a detailed account on Griffith’s bacterial transformation with neat illustration. | CO2 | 20 |