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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

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

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|  |  |  |  |
| **Code :** | **14BT2011** | **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. |  | Explain Griffiths experiment on DNA as the genetic material. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Describe how Oswald Avery *et al* showed that DNA is the genetic material. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | How does the eukaryotic DNA form as chromosomes? | CO1 | 15 |
|  | b. | How is the prokaryotic DNA organized? | CO1 | 5 |
| (OR) | | | | |
| 4. |  | Explain the components and events at the replication fork of prokaryotes. | CO1 | 20 |
|  |  |  |  |  |
| 5. |  | Describe eukaryotic DNA replication. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Differentiate between transposons and retrotransposons. | CO2 | 20 |
|  |  |  |  |  |
| 7. | a. | Explain transcription in prokaryotes. | CO2 | 10 |
|  | b. | How is post transcriptional modifications accomplished in eukaryotes? | CO2 | 10 |
| (OR) | | | | |
| 8. |  | Differentiate between translation in prokaryotes and eukaryotes. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain how gene expression is regulated in prokaryotes. | CO2 | 20 |

ALL THE BEST