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 – April/May – 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. |  | Discuss in detail about “Transformaing principle” experiments of Griffith and the experiments by Avery that suggested that DNA is the genetic material. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Enumerate Hershey- Chase Bacteriophage Experiment for proving that DNA is the genetic material. | CO1 | 20 |
| 3. |  | Illustrate with neat diagram and write the Lytic and Lysogenic cycle of the Bacteriophage. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Discuss in detail about Transduction and Conjugation with necessary diagrams. | CO2 | 20 |
| 5. |  | Enumerate the role of enzymes involved in eukryotic DNA replication and discuss the mechanism involved. | CO3 | 20 |
| (OR) | | | | |
| 6. | a. | Discuss the difference between DNA Polymerase and RNA Polymerase enzymes and its role in replication and transcription. | CO2 | 10 |
|  | b. | Describe briefly about Telomerase enzyme. | CO2 | 10 |
| 7. | a. | Write a note on the Prokaryotic Promoters during transcription. | CO3 | 10 |
|  | b. | What is DNA Footprinting? | CO3 | 5 |
|  | c. | Write a note on Rho dependent termination in Prokaryotes. | CO3 | 5 |
| (OR) | | | | |
| 8. |  | Describe Post-transcriptional RNA processing in eukaryotes. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Discuss in detail about Prokaryotic translation involved in protein synthesis. Add a note on the various types of enzymes involved in protein synthesis. Add a note on the various types of enzymes involved in protein synthesis. | CO2 | 20 |