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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

**Supplementary Examination – June – 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14BT2011** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MOLECULAR BIOLOGY** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Describe Hershey- Chase Bacteriophage Experiment for proving that DNA is the genetic material. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Discuss in detail about Transduction and Conjugation with necessary diagrams. | CO1 | 20 |
| 3. |  | Compare and contrast Prokaryotic and Eukaryotic genome structure. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Illustrate with neat diagram and write the Lytic and Lysogenic cycle of the Bacteriophage. | CO2 | 20 |
| 5. |  | Enumerate the role of enzymes involved in prokaryotic DNA replication and discuss the mechanism involved. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Discuss in detail about the Prokaryotic Transcription with necessary illustrations. | CO2 | 20 |
| 7. | a. | Articulate the method involved in processing of tRNA in E.coli. | CO3 | 10 |
|  | b. | Enumerate the mechanism involved in RNA Splicing. | CO3 | 10 |
| (OR) | | | | |
| 8. |  | Discuss in detail about eukaryotic Translation. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Explain Gene expression concept in E.coli – Lac Operon. | CO3 | 20 |

ALL THE BEST