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**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14BT2041** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MOLECULAR FORENSICS** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Describe a crime scene and discuss the type of investigations to be carried out with respect to the incidence. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Explain with a detailed note on the development of Forensic Science. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | Explain about the DNA profiling for Kinnship study. | CO1 | 10 |
|  | b. | Discuss about the functions of the forensic scientist. | CO1 | 10 |
| (OR) | | | | |
| 4. | a. | Describe Southern Blotting in detail with necessary illustrations. | CO2 | 10 |
|  | b. | Describe Sangers method of Gene Sequencing. | CO2 | 10 |
|  |  |  |  |  |
| 5. |  | Discuss the following cases,   1. how DNA studies involved in Alec Jeffreys and Pitchfork Case. | CO2 | 10 |
|  | 1. Michael Biassie Case. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Describe about the sample materials, which can be collected from the crime scene for molecular analysis. | CO2 | 10 |
|  | b. | What is VNTR? Discuss the use of this identification in Forensics with suitable example. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | PCR directed Y chromosome Sequences – Discuss with examples. | CO2 | 10 |
|  | b. | PCR Amelogenin Gene – Describe with examples in forensic technology. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Describe the significance of Polymorphic enzymes in forensics. | CO2 | 10 |
|  | b. | Discuss the applications of Anthropology in forensics. | CO2 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain in detail about RAPD analysis. Discuss with a suitable example and its identification in crime investigations. | CO2 | 20 |

ALL THE BEST