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 :** | **14BT2040** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ANIMAL BIOTECHNOLOGY AND CELL CULTURE TECHNIQUES** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Articulate the importance of cell culture techniques and discuss about the medium used for the same. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Write a detailed note on the role of antibiotics preparation of antibiotics. Draw a hemocytometer and write cell counting analysis. | CO1 | 20 |
| 3. | a. | Write in detail about the trypsinization process for the preparation of primary cell culture . | CO2 | 10 |
|  | b. | Explain the steps involved for sub culturing the cell line with necessary illustrations. | CO2 | 10 |
| (OR) | | | | |
| 4. |  | Criticize the ethical issues involved for In vitro fertilization and write a note on embryo transfer. | CO2 | 20 |
| 5. |  | Enumerate the importance of scaling up of cell culture and discuss the scaling up sytems used for suspension type of cultures. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | Describe the protocols involved for the Cytotoxicity assays. | CO2 | 20 |
| 7. |  | What is Transgenic animals. Discuss in detail and write a note on ethical issues in Animal biotechnology. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Summarize the steps involved for Vaccine production –Rabies.  Discuss the tests involed for the quality control checking. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Articulate the importance of Tissue engineering and write a note on 3D culturing with necessary examples and the procedure involved. | CO2 | 20 |

ALL THE BEST