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**

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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. | a. | Define cell culture. Discuss the equipments used in cell culture lab. | CO1 | 10 |
| b. | Explain in detail about the physico chemical properties of medium. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Draw and explain about the layout of the cell culture lab. | CO1 | 10 |
| b. | Discuss the establishment of primary cell culture and write a note on the antibiotics used for culturing cells. | CO1 | 10 |
| 3. | a. | Coment on the role of carbondioxide in cell culture. | CO1 | 10 |
|  | b. | Articulate the development of cell line and write the procedure involved for sub culturing of cells. | CO2 | 10 |
| (OR) | | | | |
| 4. |  | Discuss in detail about the protocols in volved for *In Vitro* fertilization. | CO2 | 20 |
| 5. |  | Apprise the importance of scaling up of cell cultures with necessary examples. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Critically discuss the cell viability assays and write a note on MTT assay. | CO2 | 20 |
| 7. |  | How stem cells are involved for the development of Transgenic animals? - Discuss. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | What is Rabies? Write the procedure involved for the development of Rabies Vaccine. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Elucidate the importance of Transgenic Animals and discuss the methods of gene transfer. | CO3 | 10 |
|  | b. | Discuss the Ethical issues in Animal Biotechnology. | CO3 | 10 |

ALL THE BEST