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**

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| **Code :** | **14BT3023** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ADVANCED ANIMAL BIOTECHNOLOGY AND TISSUE CULTURE** | **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. | Describe with required protocol about trypsinization process involved for Primary culturing of cells. | CO1 | 10 |
| b. | Describe the steps in sub culturing of cells with proper media preparation with necessary illustrations. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Draw a layout of a cell culture laboratory with the list of equipments used. | CO1 | 10 |
| b. | Differentiate the primary and secondary cell culture. | CO1 | 10 |
|  |  |  |  |  |
| 3. |  | Describe the importance of IVF and discuss clearly about the step wise procedure and the treatment of Hormones. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Discuss about types of cloning vectors used in transformation. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Illustrate with examples about the scaling up of Suspension and adherence type of culture system and the products produced through these system. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Enumerate the procedure for the production of rabies vaccine. | CO2 | 10 |
|  | b. | Describe in detail about quality control tests for rabies vaccine production with necessary protocols. | CO2 | 10 |
|  |  |  |  |  |
| 7. |  | Illustrate the importance of the development of transgenic crops for pest management with suitable examples. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Discuss with examples about the recent development in biotechnology for the production of live feed. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | What is Molecular Pharming, describe how stem cell technology used for the development of transgenic animals. | CO2 | 10 |
|  | b. | Write in detail about Homologus recombination in Gene knock out and Knock in Animals. | CO2 | 10 |

ALL THE BEST