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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

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

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **09BT234/12BT224** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **Animal Biotechnology/Animal Biotechnology and Tissue Culture** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_ should be added in the medium for buffering. | (1) |
| 2. | 100 IU/ml of \_\_\_\_\_\_\_\_\_\_\_ is added as an antibiotic in the cell culture medium. | (1) |
| 3. | Name a cell line which is used for cervical cancer studies. | (1) |
| 4. | Write the formula for Hemocytometer cell counting. | (1) |
| 5. | Vero cell lines is derived from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells. | (1) |
| 6. | \_\_\_\_\_\_ is the pore size of the membrane filter used for filteration of medium. | (1) |
| 7. | What is Embryo transfer? | (1) |
| 8. | Ovarian hyperstimulation can be induced by \_\_\_\_\_\_\_\_\_\_ hormone. | (1) |
| 9. | Define Transgenesis. | (1) |
| 10. | What is a chatheter? | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11. | When does a tumor cell become a cell line in *In vitro* lab condition? | (3) |
| 12. | Define Monolayer and Suspension cell culture. | (3) |
| 13. | Explain the process of Super Ovulation. | (3) |
| 14. | Discuss the importance of Serum Free Medium. | (3) |
| 15. | What is Embryo Biopsy? | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | |
| 16. | Discuss about the equipments used in cell culture laboratory and the explain about the sterilization procedures used in the cell culture lab. | (15) |
| (OR) | | |
| 17. | Explain about Serum and Serum free media used for cell culturing. | (15) |
| 18. | Explain in detail about the establishment of cell line. | (15) |
| (OR) | | |
| 19. | With a neat sketch explain the Hemocytometer cell count analysis and write a note on Primary cell culture. | (15) |
| 20. | Describe the methods of scale up process used in cell culture systems with necessary examples. | (15) |
| (OR) | | |
| 21. | Discuss the procedure involved in *In Vitro* Fertilization. | (15) |
| 22. | Discuss the production process of Rabies Vaccine and its use in Medicine. | (15) |
| (OR) | | |
| 23. | Describe Micromanipulation techniques in detail. | (15) |
| 24. | How Stem cells are used for the development of Transgenic Animals? | (15) |
| (OR) | | |
| 25. | Discuss the importance and ethical issues in Animal Biotechnology. | (15) |

ALL THE BEST