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



**End Semester Examination – Nov/Dec– 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. | The ‘Biotechnology Revolution’ is a boon to mankind. Justify with applications in Transgenic Technology. | CO3 | 10 |
| b. | Discuss the various methods of Transgenesis giving examples of Genetically Modified Organisms (GMO). | CO3 | 10 |
| (OR) | | | | |
| 2. |  | Identify any EIGHT thrust areas in Biotechnology and add a note on their significance. Comment on the future of Biotechnology in India. | CO1 | 16+4 |
|  |  |  |  |  |
| 3. | a. | Give a detailed account of R-DNA Technology with reference to production of Monoclonal Antibodies and explain the protocol for screening procedures. | CO1 | 12 |
|  | b. | Describe the types of Monoclonal Antibodies and their applications | CO1 | 8 |
| (OR) | | | | |
| 4. |  | Evaluate the importance of Artificial animal breeding and explain the procedure of embryo transfer. Comment on ethical issues and public concern. | CO2 | 15+5 |
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| 5. |  | Analyze the methods employed for Scaling Up Cell culture. Add a note on culture parameters. | CO1 | 15+5 |
| (OR) | | | | |
| 6. |  | Classify cell cultures and explain their kinetics, characterization, preservation and applications. | CO1 | 5+5 5+5 |
|  |  |  |  |  |
| 7. |  | Present an overview of Biotechnology and discuss the applications of Cell and Tissue Culture. | CO1 | 10+10 |
| (OR) | | | | |
| 8. |  | How does a Nutrient Medium support cells in-vitro? Explain the composition, types and techniques of animal cell culture and subculture. | CO1 | 5+15 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Analyze the significance of Tissue Engineering in Regenerative Medicine. Describe the process and applications with reference to artificial skin and nerve implant. | CO1 | 12+8 |

ALL THE BEST