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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| **Sub. Code:** | **14BT2025** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PLANT 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. |  | Illustrate the nutritional requirements in *in vitro* culture. | CO2 | 20 |
| (OR) | | | | |
| 2. |  | What is micropropagation? Extend the significance of micropagation. | CO1 | 20 |
| 3. | a. | Explain secondary metabolites. | CO3 | 5 |
|  | b. | Examine the secondary metabolite production from *in vitro* cell cultures. | CO3 | 15 |
| (OR) | | | | |
| 4. |  | Judge the importance of plant derived secondary metabolites in therapeutic applications with examples. | CO3 | 20 |
| 5. |  | Outline the scope and importance on tissue culture in crop improvement. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | Recall the various stages in micropropagation. | CO1 | 20 |
| 7. |  | Distinguish totipotency and embryogenesis. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | What is morphogenesis? Describe the significance of phytohormones in cellular differentiation. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Assess various techniques involved in hardening of micropropagated seeslings. | CO3 | 20 |

ALL THE BEST