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



**End Semester Examination – Nov / Dec– 2019**

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|  |  |  |  |
| **Code :** | **15BT3023** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PLANT AND ANIMAL TISSUE CULTURE** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Explain the applications of Callus culture and suspension Culture. | CO1 | 20 |
|  |  |  |  |  |
| **(OR)** | | | | |
| 2. |  | Describe the most suitable method for the production of plant secondary metabolites using plant tissue culture. | CO2 | 20 |
|  |  |  |  |  |
| 3. |  | Explain the Green House Technology and how it could be used for climate change, studies / mitigation. | CO2 | 20 |
| **(OR)** | | | | |
| 4. |  | Describe the Shikimate pathway and the application of tissue culture in enhancing its production. | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | Elucidate the pros and cons of animal cell culture. | CO1 | 10 |
| b. | Elaborate on aseptic culture technique. | CO1 | 10 |
| **(OR)** | | | | |
| 6. |  | Describe in detail how you would enumerate live cells harvested from a culture vessel to be seeded on a new culture dish. Draw diagrams wherever needed. | CO1 | 20 |
|  |  |  |  |  |
| 7. |  | Describe the various types of artificial insemination and its advantages both in human and veterinary application. | CO2 | 20 |
| **(OR)** | | | | |
| 8. |  | Explain the techniques and application of the enrichment of x and y bearing sperms from semen samples of animals. | CO2 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Describe some of the useful products generated from animal cell culture. | CO2 | 20 |