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



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

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|  |  |  |  |
| **Code :** | **15BT2008** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TISSUE ENGINEERING** | **Max. Marks :** | **100** |

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

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Discuss in detail the structural organization of the tissue. | CO1 | 20 |
| **(OR)** | | | | |
| 2. |  | Illustrate the properties of Wound healing. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | Write a note on Angiogenesis. | CO1 | 10 |
| b. | Give a short account on Vasculogenesis. | CO1 | 10 |
| **(OR)** | | | | |
| 4. |  | Enumerate the Scaffold and transplant: Engineering biomaterials for tissue engineering and degradable materials. | CO3 | 20 |
|  |  |  |  |  |
| 5. | a. | Illustrate the 3-D fingerprinting technology and interpret with architecture and cell incorporation. | CO3 | 10 |
| b. | Enumerate the transplant immunology. | CO3 | 10 |
| **(OR)** | | | | |
| 6. |  | Compile on stem cell technology. | CO3 | 20 |
|  |  |  |  |  |
| 7. |  | Integrate on Hepatopoiesis in detail. | CO3 | 20 |
| **(OR)** | | | | |
| 8. | a. | Describe a case study about cell transplantation for liver. | CO3 | 10 |
| b. | Explain a case study about cell transplantation for cardiovascular. | CO3 | 10 |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain in detail the Ethical, FDA and regulatory issues of tissue engineering. | CO3 | 20 |