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



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

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|  |  |  |  |
| **Code :** | **17EI3031** | **Duration :** | **3hrs** |
| **Sub. Name :** | **EMBEDDED PRODUCT DEVELOPMENT** | **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. | Explain the product development process flows. | CO1 | 12 |
| b. | Briefly demonstrate Product development organization structures. | CO1 | 8 |
| **(OR)** | | | | |
| 2. | a. | Elaborate five step methods of concept generation. | CO1 | 8 |
| b. | Explain the basics of concept selection and how creativity and problem solving help concept selection. | CO1 | 12 |
|  |  |  |  |  |
| 3. |  | Elaborate on the approaches to benchmarking process. How does the design process differ from industrial design? | CO1 | 20 |
| **(OR)** | | | | |
| 4. | a. | Explain the need for integrating CAD/CAM tools for simulating product performance. | CO1 | 10 |
| b. | Explain the recycling of embedded software based approach and the related process in the place of recycling real time software. | CO1 | 10 |
|  |  |  |  |  |
| 5. |  | Describe in detail the reverse engineering strategies and identifying the reusable software components. | CO2 | 20 |
| **(OR)** | | | | |  | | (OR) |
| 6. | a. | Discuss the supporting tools for benchmarking process. | CO1 | 10 |
| b. | Present a case study on developing and validating a product. | CO2 | 10 |
|  |  |  |  |  |
| 7. |  | Discuss the principles and planning of prototypes. | CO3 | 20 |
| **(OR)** | | | | |  | | (OR) |
| 8. |  | Consider a case study to illustrate on creating embedded system architecture of a mobile phone. | CO3 | 20 |
|  | | **Compulsory:** |  |  |  |
| 9. |  | Explain in detail the architectural structures and the criteria in selection of hardware and software components. | CO3 | 20 |