

Enrolment No.

Subject code: 170805

Subject Name: Embedded Systems and Applications

Time: 10.30 am-01.00 pm

Total marks: 70

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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| Q.1 | (a) Answer the following questions. | |
| | i) Explain different hardware units in an embedded system with block-diagram. | 06 |
| | ii) What are the advantages and disadvantages of C++ in an embedded system | 06 |
| | iii) Full Form: VGA, HDLC, JPEG, SDIO | 02 |
| Q.2 | (a) What is synchronous communication and explain two characteristics of synchronous communication. | 07 |
| | (b) Explain SoC (System on Chip) in an embedded system. | 07 |
| | OR | |
| | (b) Explain sophisticated interfacing feature device ports in details. | 07 |
| Q.3 | (a) Shot note: Application of an embedded system in different technology. | 07 |
| | (b) Justify the Hardware and Software synthesis in RTOS. | 07 |
| | OR | |
| Q.3 | (a) Explain CAN bus in details. | 07 |
| | (b) What are the power issues in an embedded system. | 07 |
| Q.4 | (a) Explain I2C bus in details. | 07 |
| | (b) Explain multiple function calls in cyclic order in the main function pointers. | 07 |
| | OR | |
| Q.4 | (a) Explain USB bus in details. | 07 |
| | (b) Assembly Language Programming (ALP) Vs High Level Language. | 07 |
| Q.5 | (a) Justify the Object-Oriented Programming in an embedded system. | 07 |
| | (b) Explain the classification of in an embedded system. | 07 |
| | OR | |
| Q.5 | (a) Short note: UART. | 07 |
| | (b) Explain the Timer and Counting devices. | 07 |

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