

[Time: 3 Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:**
1. **Question No. 1 is compulsory.**
 2. **Attempt any four from the remaining six questions.**

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| 1. | a. Explain 8051 Architectural details with neat diagram. | 10 |
| | b. Describe Challenges and issues in designing of embedded systems. | 10 |
| 2. | a. Explain compilation process in embedded system | 07 |
| | b. Explain in detail RS 232 communication with connector configuration. | 08 |
| 3. | a. Explain interrupt service routines with suitable example. | 07 |
| | b. Explain different types of addressing modes of any micro controller. | 08 |
| 4. | a. Explain any two Peripheral Devices in detail. | 07 |
| | b. Explain handheld operating system iOS Windows Os in detail. | 08 |
| 5. | a. Describe Architectural details of ARM7 or DSP processor. | 07 |
| | b. Explain difference between CISC and RISC. | 08 |
| 6. | a. Explain features of IEEE 1394. | 07 |
| | b. Write a program or pseudo-code for LED blinking. | 08 |
| 7. | Write short notes on any Three | 15 |
| | a. PCI bus | |
| | b. OTP ROM | |
| | c. Semaphores | |
| | d. Watch Dog Timer | |
| | e. USB | |