

MCA sem IV (CBCGS)

Embedded Systems

QP Code :17816

11/12/2014

(3 Hours)

[ Total Marks : 80

- N.B. : (1) Question no: 1 is compulsory  
(2) Attempt any Four from remaining.

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|--------|---|----|
| 1. (a) | Explain Architectural diagram of 8051 in detail                         | 10 |
| (b)    | Explain any three scheduling algorithms used in RTOS                    | 10 |
| 2. (a) | Explain in detail RS 232 communication with connector configuration.    | 8  |
| (b)    | What are the emulators and explain emulation techniques.                | 7  |
| 3. (a) | Explain interrupt service routine in detail.                            | 8  |
| (b)    | Explain Instruction level parallelism?                                  | 7  |
| 4. (a) | Explain handheld operating system iOS or Windows OS in detail.          | 8  |
| (b)    | Explain different types of memories in detail.                          | 7  |
| 5. (a) | Explain difference between CISC and RISC.                               | 8  |
| (b)    | Describe architectural details of Embedded Linux?                       | 7  |
| 6. (a) | What is the Semaphores and explain semaphore management function calls. | 8  |
| (b)    | Write a program or pseudo-code for LED blinking?                        | 7  |
| 7.     | Write short notes on any Three :-                                       | 15 |
| (a)    | Cross compiler  |    |
| (b)    | Mutex   |    |
| (c)    | Watch Dog Timer   |    |
| (d)    | JTAG  |    |
| (e)    | USB   |    |