

Code No: 09A70409

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, June/July - 2014

EMBEDDED SYSTEMS
(Common to ECE, ETM)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks

- 1.a) Briefly describe the distinction between Requirements and Specification phases in an embedded system design process.
- b) Explain the role of Microprocessor in digital system design.
- 2.a) Explain about 8051 microcontroller hardware structure.
- b) What is necessity of an Interrupt and explain Interrupt concept in 8051?
3. Explain the following instructions with an example with reference to 8051 Assembly language.
a) RLA b) RLCA c) RRA d) RRCA.
- 4.a) Explain how PSoC is a single chip solution for Embedded system design.
- b) Explain about digital blocks in PSoC.
5. Develop the necessary source code and operation with fundamental steps for Cap sense.
- 6.a) What is shared data problem? Explain it with an example.
- b) Explain about Interrupt Routines in RTOS environment.
- 7.a) Explain about Hard real time scheduling consideration.
- b) Explain any two ways to getting embedded software into the target system.
8. Explain operational aspects of one of the bus protocols suitable for networking of embedded systems of your choice.

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