

## Code No: A5503, A7703 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY-2012 EMBEDDED SYSTEMS CONCEPTS (EMBEDDED SYSTEMS, EMBEDDED SYSTEMS&VLSI DESIGN) Time: 3hours Max.Marks:60

## Answer any five questions All questions carry equal marks

1.a. Explain the Hardware units in an Embedded Systems. Give examples of Embedded systems.

- b. Explain the memory map used in Embedded Systems.
- 2.a. Explain the serial communication using the I2C.
- b. Explain I/O devices and timers in Embedded Systems. Consider one example.
- 3. Explain different blocks of Device drivers.
- 4. Explain serial port Device Drivers development procedure.
- 5. Explain Inter process communication and show how a synchronization of process is achieved.
- 6. Explain Data sharing by multiple tasks and routines.
- 7. Explain design cycle and development phases for an embedded systems. Consider one example as a project (i.e Application).
- 8. What is scoping and how a logic analyzer is used and how Hardware testing is done in Developing Hardware in Embedded Systems.

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