R09

Code No: D8001

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH II - SEMESTER EXAMINATIONS, APRIL/MAY 2012
MICRO CONTROLLER AND APPLICATIONS
(MECHATRONICS)

Time: 3hours **Max. Marks: 60**

Answer any five questions
All questions carry equal marks
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1.a) What are the resources available at the 8048? Explain the differences in functional overview of 8048 and Microprocessor.
b) Explain Hardvard and Princeton Architecture.

2.a) How do you find the execution time for a set of instructions in the program?
b) Explain how CJNE instructions are useful in implementing the 'if' statements and 'case' statements in a program.

3.a) Describe different types of the data transfer instruction in 8051. Explain the differences between MOV, MOV C and MOV X instructions.
b) Explain the addressing modes of 8051 instruction set.

4.a) Give any five SFR's in 8051.
b) Explain the IP and IE registers.

5. Explain how the 8051 serial communication is used.

6. Explain how the 8051 is interfaced with external memory.

7. Discuss about the interfacing of LCD with IC 8051.

8. Explain the difference between RISC & CISC processors. Explain briefly about ARM controllers.

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