

R13

Code No: 5155B

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I Semester Examinations, February - 2014

EMBEDDED C

(Embedded Systems)

Time: 3 Hours

Max. Marks: 60

Instructions:

- i) Part A is compulsory Question for 20 marks.
- ii) Part B consists of five questions with "either" "or" pattern. The student has to answer any one. However students have to answer five questions from Part B (numbered from 2 to 6)

PART - A

(Answer all sub questions)

5 × 4 marks = 20

- 1.a) What is an Interrupt? Explain Interrupt concept in 8051 Microcontroller.
- b) What are Basic Techniques for reading from port pins? Explain with reading and writing bytes example.
- c) Explain the port Header.
- d) Write precise program for generating 50 ms delay.
- e) What are the fundamental steps for running the program?

PART - B

5 × 8 marks = 40

Answer either "a" or "b" from each question, but not both

- 2.a) Explain about clock frequency and its performance.

OR

- b) What is embedded system? Which programming language should use in embedded systems?

- 3.a) Explain dealing with switch bounce with Example.

OR

- b) Explain example of counting goats.

- 4.a) Explain in detail advantages of Object-oriented programming with C.

OR

- b) Explain example of counting goats in Object-oriented programming with C.

- 5.a) Explain about real time constraints with example.

OR

- b) Write simple program for testing hardware-based timeout mechanisms.

- 6.a) What are Key software component in Intruder Alarm System?

OR

- b) Explain the concept of Intruder Alarm system with block diagram.

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