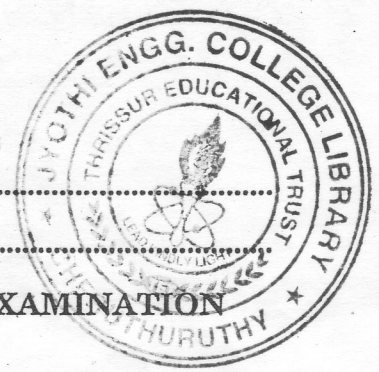


C 18257

Name.....

Reg. No.....



**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2011**

CS/IT 04 601—EMBEDDED SYSTEMS

Time : Three Hours

Maximum : 100 Marks

Part A

- I. (a) When do we need an RTOS ?
- (b) What are the advantages offered by an FPGA for designing an embedded system ?
- (c) Differentiate EPROM and EEPROM.
- (d) Compare the advantages and disadvantages of data transfers using serial and parallel ports/ devices.
- (e) Why do you need a cross compiler ?
- (f) Explain about Interrupt Latency.
- (g) State the need for an RTOS.
- (h) What is meant by interrupt latency ? Explain.

(8 × 5 = 40 marks)

Part B

- II. (a) Explain in detail about the processors in the embedded system.
- (b) Explain any one real time application in detail which makes use of an embedded system.
- III. (a) With neat sketches, explain the I/O devices used in an embedded system.
- (b) Write in detail about the DMA working principles.
- IV. (a) Explain in detail about the Inter-process communication in RTOS.
- (b) Discuss about the driver for internal programmable timing devices.
- V. (a) Explain the RTOS structure, the context and its use and the schedule management for multiple tasks.
- (b) Write in detail about the RTOS task scheduling models.

(4 × 15 = 60 marks)