JYOTHI ENGG. COLLEGE LIBRARY
THRISSUR EDUCATIONAL TRUST
CHERUTHURUTHY

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)