D 20947

Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION OCTOBER 2011

IT 09 503—EMBEDDED SYSTEMS

(2009 admissions)

Time : Three Hours Maximum : 70 Marks

Part A

Answer any **five** *questions.*

1. Mention any four applications of an embedded system.
2. Define MIPS and MFLOPS.
3. What do you mean by plug and play devices ?
4. Differentiate a function and an ISR.
5. State the need for RTOS.

(5 × 2 = 10 marks)

Part B

Answer any **four** *questions.*

1. Explain about the hardware components used in an embedded system.
2. Explain about the parallel port devices.
3. Write about the finite state machine models.
4. Explain about the issues in multiprocessor systems.
5. How is scheduling done in real time by RTOS ? Explain.
6. Explain about the OS security issues.

(4 × 5 = 20 marks)

Part C

Answer any **four** *questions.*

1. Discuss in detail about the classification of an embedded system.

Or

2. Write about the embedded systems on a chip (SOC) and use of VLSI.
3. Explain about the processor selection factors.

Or

4. Discuss in detail about the type of I/O devices used in an embedded system.
5. Write in detail about the Real time programming issues during software development process.

Or

6. Describe about the driver for internal programmable timing devices.
7. Explain about the interrupt routine in RTOS environment.

Or

8. How is schedule management for multiple tasks done by RTOS ? Explain.

(4 × 10 = 40 marks)