F 9093

Reg. No..................................

Name......................................

B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

Branch : ECE, Applied Electronics and Instrumentation and Electronics and Instrumentation Engineering

EMBEDDED SYSTEMS (Elective III) (LAS)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 marks.

1. Why is an embedded system required ?

2. How do you categorize, embedded systems ?

3. Briefly describe the communication interface standards used in embedded systems.

4. Describe the microcontroller architecture required for an embedded system.

5. How does PC to PC communication take place in an embedded system ?

6. What is the need for a protocol converter ?

7. How is a message sent over a serial link ?

8. Give an example, where a RT embedded system has to be used.

9. What is Jini ?

10. What is SOC ?

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. With an example, show how an embedded system is used in consumer electronics.

Or

12. Briefly describe the challenges and issues in a embedded software development.

13. Write a note on the OS and its different types used for an embedded system.

Or

14. What are the communication interface standards that have to be met during embedded system design ?

15. With an example, illustrate the embedded application over mobile network.

Or

Turn over

16. Discuss the various techniques with which an embedded system communication with 8051 microcontroller.

17. Briefly describe the simulation of a process control system.

Or

18. How do you design an embedded system to read an energy meter ?

19. Write notes on smart cards and cashless societies.

Or

20. With an example, show how embedded systems are used in Mobile Java applications.

(5 × 12 = 60 marks)