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Question Paper Code : 31340

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Eighth Semester

Electronics and Communication Engineering

EC 2042/EC 801 – EMBEDDED AND REAL TIME SYSTEMS

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Enumerate various issues in real time computing.
2. Write short notes on ARM processor.
3. What are CPU buses?
4. List out the various compilation techniques.
5. Define : Processes.
6. What is context switching?
7. What do you mean by hardware accelerator?
8. State the advantages of network based design.
9. Write short notes H/W and S/W Co-design.
10. What are FOSS tools for Embedded Systems?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain about the Embedded system design process with suitable diagrams. (10)
- (ii) What are instruction set preliminaries. (6)
- Or
- (b) (i) Discuss in detail about coprocessor. (12)
- (ii) What do you mean by CPU performance? (4)

12. (a) Describe about Memory devices with suitable examples. (16)
- Or
- (b) Discuss in detail about assembly and linking with examples. (16)
13. (a) Discuss in detail about multi tasks and multi processes. (16)
- Or
- (b) Explain about inter process communication mechanism with neat sketch. (16)
14. (a) Discuss in detail about distributed embedded architecture with neat sketches. (16)
- Or
- (b) Explain in detail about networks for embedded systems with an example. (16)
15. (a) Discuss about data compressor in detail with suitable diagrams. (16)
- Or
- (b) Explain about Software modem with neat sketch. (16)