Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 83109

M.E./M.Tech. DEGREE EXAMINATION, JANUARY 2014.

First Semester

Applied Electronics

CP 7103 – MULTICORE ARCHITECTURES

(M.E. Computer Science and Engineering, M.E. Digital Signal Processing,
M.E. Computer Science and Engineering (with specialization in networks) and
M.Tech Information Technology)

(Regulation 2013)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is Dependability.

2. What do you mean by Task Level Parallelism?

3. What is Vector Execution Time?

4. Difference between Multimedia SIMD and Computers and GPUs.

5. What is Memory Consistency?

6. Differentiate between Symmetric Memory Architecture and Distributed Memory Architecture.

7. Define DLP.

8. What is Cloud Computing?

9. What is Hard Real Time Systems?

10. What is Vector Instruction?

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail about Trends in power and Energy in Integrated Circuit.

Or

(b) Discuss about The Multicore era in detail.

12. (a) Explain in detail about Graphics Processing Units.

Or

(b) Discuss about Vector Architecture in detail.

13. (a) Explain briefly about Distributed Shared Memory Architecture.

Or

(b) Write notes on :
    (i) Buses. (8)
    (ii) Interconnection Networks. (8)

14. (a) Explain briefly about Architecture of Warehouse Scale Computing.

Or

(b) Explain in detail about Physical Infrastructure and Cross Cutting Issues of Warehouse scale Architecture.

15. (a) Explain briefly about Embedded Benchmarks.

Or

(b) Explain briefly about Embedded system in Sanyo VPC-SX500 Digital Camera.

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