

M.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2013)

Third Semester

APPLIED ELECTRONICS

P13AETE06: Hardware Software Co-Design

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. List out the applications of Embedded Controllers.
2. Sketch Multi-processor architecture.
3. Compare synthesis and design oriented approach.
4. Quote System level Partitioning problem.
5. Define Heterogeneous Distributed System.
6. State Heuristic Algorithm.
7. List out the different types of Prototyping and Emulation Environments.
8. What is meant by Debugging controller?
9. Mention Co-design Computational model.
10. Distinguish between nondeterminacy and simultaneity.

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

Q.No:11 is Compulsory

11. (i) Explain Aptix Prototyping system. (10)
(ii) Elaborate Zycad Paradigm RP and XP. (6)
12. (i) Apply Cooperative design of Hardware and Software for designing heterogeneous system. (10)
(ii) Design Single processor architecture with one ASIC. (6)

- 13. (i) Evaluate Hardware-Software Partitioning Problem. (10)
- (ii) Examine Hardware-Software Cost Estimation. (6)

- 14. (i) Discuss communication modeling and Co-Synthesis. (8)
- (ii) Summarize reactive system Co-Synthesis. (8)

- 15. (i) Write short notes on system communication Infrastructure. (8)
- (ii) Enumerate the ADSP 21060 Program sequencer. (8)

- 16. (i) Develop Automatic generation of Co-Simulation Interfaces. (10)
- (ii) Brief note on System level Heterogeneous specification. (6)
