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Question Paper Code : 51412

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

Seventh Semester

Electronics and Communication Engineering

EC 2027/EC 704/10144 ECE 31 – ADVANCED MICROPROCESSORS

(Regulations 2008/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. List the support chips that the 8086 works with.
2. What are the addressing modes of 8086 ?
3. What are the special features of Pentium II microprocessor ?
4. What is the speed of Pentium IV microprocessor ?
5. Discuss the differences between RISC and CISC processors.
6. What is pipelining ?
7. What is ultra SPARC processor ?
8. Draw Intel i960 CA pipeline stages.
9. Define variable address.
10. Why is 8255 easy to program ?

PART – B (5 × 16 = 80 Marks)

11. (a) How are the 80186 memory addressed calculated ? Explain. (16)
- OR**
- (b) Explain the immediate, register, direct and memory address mode of 8086. (16)
12. (a) Describe Pentium III microprocessor Architecture and Memory management. (16)
- OR**
- (b) Describe Pentium IV microprocessor Architecture and compare the features with other Pentium versions. (16)
13. (a) Briefly explain Instruction fetching, execution and branch prediction of RISC processors. (16)
- OR**
- (b) Explain different stages of Integer pipeline and floating point pipeline of Pentium processor. (16)
14. (a) Explain the architecture of SUN, SPARC, RISC. (16)
- OR**
- (b) Compare the architecture features of Intel i960, MIPS R10000 and Motorola 88110 and SPARC. (16)
15. (a) Explain the basic input and output interfaces. (16)
- OR**
- (b) Briefly discuss about I/O port address decoding. (16)