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5845

Reg. No. : .....

Name : .....

**Eighth Semester B.Tech. Degree Examination, October 2014  
(2008 Scheme)**

**08.805A : ADVANCED MICROPROCESSORS (F)**

Time : 3 Hours

Max. Marks : 100

**PART – A**

Answer **all** questions. **Each** carries **4** marks.

1. Explain the flags AC, P and Z in 8085.
2. Show the bit format of accumulator before the execution of SIM instruction.
3. Explain how 20 bit physical address is computed in 8086.
4. Explain based indexed addressing mode in 8086 with examples.
5. What do you mean by deep branch prediction in pentium processors ? Discuss.
6. Give an overview of pentium 4's pipeline.
7. Describe the features of core 2 Duo.
8. Compare 604 and 604e processors.
9. Explain trace segment build mode.
10. Mention important features of pentium 4 processor. **(10×4=40 Marks)**

P.T.O.

**PART – B****Module – I**

11. a) Explain the interrupt structure of 8085 in detail. **10**  
b) Write an assembly language program for 8085 to sort a series of numbers in ascending order. **10**

OR

12. a) Draw the internal architecture of 8086 and explain the execution unit. **12**  
b) Describe any 8 addressing modes of 8086 with examples. **8**

**Module – II**

13. a) Discuss about the register organisation of the basic execution environment of pentium processors. **10**  
b) Draw the micro architecture of power PC 601 and explain in detail. **10**

OR

14. a) Describe the architecture of 7400 in detail. **10**  
b) Explain the concepts of pipelining and superscalar execution. How are these concepts introduced in pentium processors. **10**

**Module – III**

15. a) What is 64-bit computing ? Discuss the various applications of 64-bit computing. **10**  
b) Draw the microarchitecture of the INTEL core 2 duo processor and explain. **10**

OR

16. a) Explain the internal organisation of IBM power PC 970. **10**  
b) Explain switching modes of X86-64 processor. **10**
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