



Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, April 2016
(2008 Scheme)**

08.805A : ADVANCED MICROPROCESSORS (F)

Time : 3 Hours

Max. Marks : 100

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PART – A

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

1. Explain the meaning of instructions LDAX D and PUSH D.
2. Discuss the functions of 8085 pins TRAP and READY.
3. Discuss when clock signal is generated in 8086.
4. Differentiate between maximum and minimum mode of operation in 8086.
5. What is meant by execution trace cache ?
6. Explain Pentium 4's instruction window.
7. Differentiate between L₁ and L₂ cache.
8. List some of applications of 64-bit architecture.
9. Compare Intel's IA-64 and AMD's X86 – 64.
10. What is meant by static execution unit of pentium M ? What is its function ?
(10×4=40 Marks)

PART – B

Module – I

11. a) Draw the internal organisation of 8085 and explain. **12**
- b) Write an assembly language program for 8085 to multiply two 8-bit numbers using shift and add method. **8**

OR

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12. a) With relevant details, explain how reset and clock signals are provided in 8086. 6
- b) Write an assembly language program for 8086 to convert a 16-bit decimal number to its equivalent binary. 10
- c) Explain the interrupt INTn of 8086. 4

Module – II

13. a) Discuss the development of INTEL'S processor design concept from pentium to pentium 4. 10
- b) Explain Pentium's pipeline stages in detail. 10

OR

14. a) Draw the basic microarchitecture of G4e processor and explain. 10
- b) Draw the front end and back end of pentium pro and explain. 10

Module – III

15. a) Compare 32 bit versus 64-bit paging models 10
- b) Explain the branch prediction in pentium M. 6
- c) What is meant by 64-bit computing ? 4

OR

16. a) Explain IBM power PC 970's IU and LSU issue queues in detail. 8
- b) What is cache memory ? Explain any two mapping techniques in cache memory. 12
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