

C 80696

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER B.TECH. (ENGINEERING) (09 SCHEME)  
DEGREE EXAMINATION, APRIL 2015**

IT/CS 09 403/PTCS 09 402—COMPUTER ORGANIZATION AND DESIGN

Time : Three Hours



Maximum - 70 Marks

**Part A**

*Answer all questions.  
Each question carries 3 marks.*

1. What do you mean by an operator ?
2. Write about the methods of representing an instruction.
3. Enumerate the major components in an ALU.
4. Define multiprogramming.
5. Enumerate the I/O performance measures.

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.  
Each question carries 5 marks.*

6. Explain about the historical perspective of computer abstraction.
7. Write about evaluating, comparing and summarizing the performance of a computer.
8. Explain about the floating point operation in 80 × 86.
9. Explain about construction of an ALU.
10. Explain about the characteristics of I/O devices.
11. Explain about the process of designing an I/O system.

(4 × 5 = 20 marks)

**Part C**

*Answer all questions.*

12. (a) Explain about the SPEC95 bench mark case study.  
*Or*  
(b) Bring out the historical perspective of computer abstraction and technology.
13. (a) Explain the addition and subtraction operations supported by 8086 with examples.  
*Or*  
(b) How is multiplication operation done in 80 × 86 ? Give examples.

**Turn over**

14. (a) Explain about single and multi-cycle implementations of a processor in detail.

*Or*

(b) Explain in detail about the process of building a data path.

15. (a) Explain the working of cache memory in detail.

*Or*

(b) Explain in detail about Pentium Pro memory hierarchy.

(4 × 10 = 40 marks)