

**5221/A25**

**MAY 2011**

**COMPUTER ORGANIZATION**

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Time : Three hours

Maximum : 100 marks

**PART A — (6 × 5 = 30 marks)**

Answer any SIX questions.

1. Explain the use of accumulator.
2. What is meant by Fetch cycle?
3. What is seek time?
4. Explain the use of indexed addressing mode.
5. What is meant by handshaking?
6. What is meant by interrupt?
7. What is meant by Machine language?
8. What is meant by virtual memory?
9. What is I/O bus?
10. Discuss the functional units of a computer.

**PART B — (4 × 10 = 40 marks)**

19. Write a note on

- (a) Cache memory
- (b) Memory protection
- (c) Micro Program control organization.

Answer any FOUR questions.

- 11. Explain multi processor organization in detail.
- 12. Describe the role of program counter and other registers in addressing.
- 13. Explain the working of a one stage arithmetic unit.
- 14. Describe the use of page table in address mapping.
- 15. Describe LIFO and LRU page replacement algorithms
- 16. Explain the process of asynchronous serial data transfer.

**PART C — (2 × 15 = 30 marks)**

Answer any TWO questions.

- 17. Write the flowchart and algorithm for multiplication and division of two floating point numbers.
- 18. Explain the various control signals available in a microprocessor.