

(Please write your Exam Roll No.)

Exam Roll No.

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END TERM EXAMINATION

SECOND SEMESTER [MCA] MAY-2008

Paper Code: MCA- 106

Subject: Computer System Architecture

Paper Id: 44106

(Batch: 2004-2007)

Time: 3 Hours

Maximum Marks: 60

Note: Q. 1 is compulsory. Attempt four questions from rest of the paper taking one question from each unit.

- Q.1 (a) Explain the steps of an instruction cycle. (4)
(b) Explain the different addressing modes. (4)
(c) What is the difference between pipeline and vector processing? (4)
(d) What is DMA? (4)
(e) What is associative memory? (4)

UNIT - I

- Q2. (a) Explain all arithmetic and logic micro-operations. Explain their implementation. (10)
Q3. (a) Discuss the design of accumulator logic. (10)

UNIT - II

- Q4. What is the purpose of pipelining? Explain the architecture of a pipelined computer. (10)
Q5. What is the need of array processor? Discuss their architecture. (10)

UNIT - III

- Q6. How do you perform floating point arithmetic operation? Discuss the algorithm with example.. (10)
Q7. What is the purpose of IO-processor? Explain its architecture. (10)

UNIT – IV

- Q8. What is paging? Explain its hardware implementation. (10)
- Q9. What are the characteristics of multiprocessors? Discuss the methods of synchronization in multiprocessor architecture. (10)
