

MCA-760

**MCA-10/
PGDCA-08**

**M.C.A./P.G.D.C.A. DEGREE
EXAMINATION — JUNE, 2010.**

First Year

THEORY OF COMPUTER SCIENCE

Time : 3 hours

Maximum marks : 75

PART A — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

1. Explain about Regular Grammar.
2. Explain about Finite – State acceptor.
3. Explain in detail about Deterministic in Finite automation.
4. Explain in detail about initial state in Finite automation.
5. Write in detail about non deterministic in Finite automation.
6. Write in detail about State diagram in Turing machine.
7. Write about Tape Expression in Turing machine.

PART B — ($5 \times 10 = 50$ marks)

Answer any FIVE questions.

8. Explain about Transition Function in Finite automation.
 9. Write about equivalent in automation.
 10. Explain in detail about context Free Grammar.
 11. Describe about Finite State machines.
 12. Write about Regular Expression in theory of computation.
 13. Write about closure properties of Regular sets.
 14. Write in detail about computable languages in Turing machines.
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