

MCA-411**MCA-01/
PGDCA-01**

M.C.A. DEGREE/P.G.D.C.A. EXAMINATION –
JUNE 2009.

First Semester/First Year

COMPUTER FUNDAMENTALS

Time : 3 hours

Maximum marks : 75

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Convert the following :
 - (a) $(167)_8 = (?)_{10}$
 - (b) $(19)_{10} = (?)_2$
2. Write a note on Gray code.
3. Explain about RS-flip flop.
4. Discuss briefly about shift register.
5. Describe the operations of decoders.
6. Define Linker with examples.
7. What is meant by vector processing? Explain briefly.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Perform the following operations :
 - (a) $(1110)_2 \times (0111)_2$
 - (b) $(120)_8 \times (50)_8$.
 9. Draw the truth table for a 4 input OR gate.
 10. Explain RAM and its types.
 11. Describe the various Flip-flops with truth-tables.
 12. Discuss on peripherals and interfaces.
 13. Explain the types of registers with example.
 14. Explain about Error detecting and Error correcting codes.
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