

Code: 9F00203

MCA II Semester Supplementary Examinations, March 2013

COMPUTER ORGANIZATION

Time: 3 hours

Max Marks: 60

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Convert the following numbers with indicated bases to decimal:
(i) $(50)_7$ (ii) $(4310)_5$ (iii) $(101110)_2$
(b) Simplify the following Boolean function using four – variable k – map
 $F(A, B, C, D) = \Sigma(0, 1, 2, 3, 7, 8, 10) + d \Sigma(5, 6, 11, 15)$.
- 2 (a) Explain the memory hierarchy.
(b) What additional logic is required to give a no-match result for a word in an associative memory when all key bits are zeros?
- 3 (a) Explain the difference between hardwired control and micro programmed control. Is it possible to have a hardwired control associated with a control memory?
(b) Explain the concept of micro program sequencer for a control memory.
- 4 Define addressing mode and explain the need of addressing mode. With example explain all the addressing modes.
- 5 (a) What is mean by interrupt and explain about the process control instructions.
(b) Draw an INTELL 8086 flag format and explain all flag transfer instructions.
- 6 (a) What is the difference between isolated I/O and memory-mapped I/O? What are the advantages and disadvantages of each?
(b) Briefly explain about the DHA.
- 7 Define pipeline. Explain about arithmetic pipeline, with examples.
- 8 Explain any three interconnection structures in multi processors.
