

Code No: RR220503

II B.Tech II Semester(RR) Supplementary Examinations, December 2010

COMPUTER ORGANIZATION

(Common to Computer Science & Engineering, Information Technology, Computer Science & Systems Engineering and Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the program flow of control with and without interrupts. Demonstrates with suitable figures.
(b) Discuss the ideal situations for short and long I/O wait.
(c) How multiple interrupts will be handled. [6+6+4]
2. (a) Multiply the following binary number
i. 1110 and 0111
ii. 101110 and 101011
(b) How is floating point multiplication performed?
(c) Explain about excess 50 form [6+6+4]
3. NOOP instruction has no effect on the CPU state other than incrementing the program counter. Suggest some uses of this instruction with examples. [16]
4. (a) Discuss the motivation for CISC.
(b) Differentiate between CISC and RISC characteristics [8+8]
5. (a) Discuss the principles of associative memory.
(b) Explain the functioning of 4 x 4 bit associative memory array.
(c) Explain the cache with two-way set-associative addressing [6+4+6]
6. (a) Discuss the changes in memory and register for an interrupt in interrupt-driven I/O.
(b) Differentiate between programmed I/O and interrupt-driven I/O.
(c) Explain about simple interrupt processing with the help of a flow chart. [6+4+6]
7. (a) Differentiate between micro programmed and hard wired control units with merits and demerits of each.
(b) Discuss about the design considerations of micro instruction sequencing technique. [8+8]
8. (a) Differentiate between two-stage and four-stage pipelines
(b) Discuss the demerits of pipelined processing. [10+6]
