

R09**Code: 9A05406**

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

COMPUTER ORGANIZATION

(Electronics and Communication Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain how multiple interrupts are handled in a computer.
(b) Explain Amdahl's law.
- 2 (a) What is addressing mode? Explain the different addressing mode techniques used by the computer.
(b) Explain the evaluation of arithmetic expression using reverse polish notation.
- 3 (a) Explain why each of the following micro-operation cannot be executed during a single clock pulse:
(i) $IR \leftarrow M[PC]$
(ii) $AC \leftarrow AC + TR$
(iii) $DR \leftarrow DR + AC$
Also specify a sequence of micro-operations that will perform in the above operation.
(b) Explain the microinstruction format.
- 4 (a) Explain the register configuration for floating point arithmetic operations.
(b) Explain the division of floating point numbers.
- 5 (a) Define cache memory. Write in detail about writing into cache.
(b) Discuss about any two levels of RAID in detail.
- 6 (a) Explain the operation of RS 232 protocol with neat sketch.
(b) Describe Input-Output processor serial communication
- 7 (a) Distinguish Pipeline and Vector processing methods?
(b) Explain about Instruction pipeline process
- 8 (a) Explain the working of omega switching network. Show a neat sketch.
(b) How many stages and how many Switches in each stage are needed in a $n \times n$ omega switching network?
