

Code: CS3T4, IT3T2

**II B.Tech - I Semester – Regular Examinations – December 2014**

**COMPUTER ORGANIZATION**  
**(Common for CSE, IT)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

- 1 a) What is a micro-operation ? Explain RTL. 4 M
  - b) Explain various Arithmetic microoperations and draw a circuit to implement. 10 M
- 2 a) Explain any four memory-referencing instructions in detail. 6 M
  - b) Explain instruction cycle with the help of a flow chart. 8 M
- 3 a) Explain address sequencing in microprogrammed control unit. 6 M
  - b) Explain various addressing modes. 8 M
- 4 a) Explain the addition and subtraction with signed-magnitude data with a flow chart. 6 M
  - b) Explain Booth's multiplication algorithm with an example. 8 M

- 5 a) Explain memory hierarchy. 4 M
- b) Explain Associative memory in detail. 10 M
- 6 a) Explain various modes of data transfer. 7 M
- b) Explain DMA in detail. 7 M
- 7 a) Explain Instruction pipeline. 7 M
- b) Explain the concept of parallel processing. 7 M
- 8 a) Briefly explain any three Inter-connection structures used in multiprocessor systems. 7 M
- b) Write a short notes on Inter-process communication and synchronization. 7 M