

Code No: **R41021****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, Oct/Nov - 2018****COMPUTER ORGANIZATION****(Electrical and Electronics Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks****\*\*\*\*\***

- 1 a) Explain about Floating-Point Representation. [8]  
b) Discuss about Fixed Point Representation. [7]
- 2 a) Design Arithmetic Logic Shift Unit with neat Diagram. [8]  
b) Explain about instruction codes. [7]
- 3 a) Explain about Input-Output Instructions with a neat table. [8]  
b) Explain about the Instruction Formats in a CPU. [7]
- 4 a) Define the following:  
(i) Control Memory  
(ii) Control Address Register  
(iii) Sequencer [9]  
b) What are the address sequencing capabilities required in a control memory? [6]
- 5 a) Explain about  
(i) Virtual memory.  
(ii) Cache Memory [8]  
b) Explain about Magnetic Disk and Magnetic tapes in detail. [7]
- 6 a) How the connection of I/O bus to input-output devices takes place. Explain in detail. [6]  
b) What is the difference between isolated I/O and memory-mapped I/O? What are the advantages and disadvantages of each? [9]
- 7 Explain about Pipeline for floating-point addition and subtraction with a Flow Chart diagram. [15]
- 8 a) What is a multiprocessor? Explain the characteristics of multiprocessors. [8]  
b) Discuss the inter processor arbitration. [7]