

Code No: **R31041****R10****Set No. 1****III B.Tech I Semester Supplementary Examinations, October/November- 2018****COMPUTER ARCHITECTURE & ORGANIZATION****(Common to Electronics and Communication Engineering and Electronics and Instrumentation Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions  
All Questions carry equal marks**

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- 1 a) Explain the speed up features of modern computers?  
b) Write notes about representation of integers in computers.
- 2 a) What are instruction formats? Explain the different instruction types with example?  
b) Explain about general register organisation.
- 3 a) What are hardwired and micro programmed controls?  
b) Compare the hardwired control with micro programmed control in terms of complexity of the instruction set, ease of modification and clock speed.
- 4 a) Write an algorithm to add the magnitudes and attach the sign of A to the result, When the signs of A and B are identical.  
b) With a neat Flow chart explain Floating Point Multiplication.
- 5 a) Describe in detail about associative memory.  
b) Define virtual memory? What are the advantages and disadvantages in using virtual memory?
- 6 a) Discuss the DMA operation with neat diagram in detail?  
b) Describe in detail about IOP organization
- 7 a) What are Symmetric Multiprocessors? Explain.  
b) Discuss about multi-threading
- 8 a) Explain the Characteristics of multiprocessors  
b) Explain inter process and inter processor arbitration.

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