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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**MCA I Year I Semester Regular Examinations Jan 2020**  
**COMPUTER ORGANIZATION**

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

- 1 a Draw the H/W Flow chart for Division with suitable example 6M  
b Explain about arithmetic operations on floating point numbers with its neat sketch. 6M

**OR**

- 2 a Discuss about the Multiplexers and Adders. 6M  
b Write about Boolean algebra and simplification of Boolean expressions. 6M

**UNIT-II**

- 3 a Explain about RAM and ROM chips of main memory with neat sketch. 6M  
b Discuss about the cache memory with different types of mappings. 6M

**OR**

- 4 a Explain about Hardware Control with the help of neat diagram. 6M  
b Explain in details about all three types of Shift Register Operations. 6M

**UNIT-III**

- 5 a Write in detail about Data Transfer Instructions. 6M  
b Write in detail about program Control Instructions. 6M

**OR**

- 6 a Explain about rotate instructions and its types in detail. 6M  
b Explain about Programming with assembly language instructions with example. 6M

**UNIT-IV**

- 7 a Explain about modes of transfer and its types. 6M  
b Explain about Priority interrupts and its types. 6M

**OR**

- 8 a Explain the Following i) Programmed I/O 6M ii) Interrupt-initiated  
b Explain the following i) Daisy chaining 6M ii) Parallel priority

**UNIT-V**

- 9 a Explain about Inter Processor Arbitration with neat sketch. 6M  
b Explain about Inter Connection structures in detail. 6M

**OR**

- 10 a Explain about Multiprocessor and its classification in detail. 6M  
b Explain about Array processors. 6M

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