

Reg. No.

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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR  
(AUTONOMOUS)**

**MCA I Year I Semester Regular & Supplementary Examinations Jan 2018  
Computer Organization**

Time: 3 hours

Max. Marks:60

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

**UNIT-I**

- 1 a Describe the importance of encoders 6M  
b Describe full adder and its circuit diagram. 6M

**OR**

- 2 a Explain JK flip-flop and T flip-flop. 6M  
b Explain logical gates with their circuit diagrams. 6M

**UNIT-II**

- 3 a Explain ROM and RAM. 6M  
b Describe the importance of direct mapping. 6M

**OR**

- 4 a Briefly explain the micro programmed control. 6M  
b Explain Auxiliary memory. 6M

**UNIT-III**

- 5 a Describe data transfer instructions. 6M  
b Explain shift and rotate instructions. 6M

**OR**

- 6 a What is address transfer and explain it clearly? 6M  
b Describe the Flag transfer. 6M

**UNIT-IV**

- 7 a What is interrupt and explain with suitable example? 6M  
b Describe interrupt cycle? 6M

**OR**

- 8 What is DMA? How the DMA controller works? 12M

**UNIT-V**

- 9 a Explain shared memory multiprocessors? 6M  
b Describe the inter processor communication. 6M

**OR**

- 10 a What is parallel processing? 6M  
b Explain RISC pipeline. 6M

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