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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year II Semester Supplementary Examinations October-2020**
COMPUTER ORGANIZATION

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a What is Computer Instructions and Explain about it? **6M**
b Write about Memory-Reference-Instruction. **6M**

OR

- 2 a Write in detail about the Basic Operational Concepts with neat diagram. **6M**
b What is Computer Registers and explain the types in it. **6M**

UNIT-II

- 3 a Write H/W Algorithm for Multiplication for positive numbers with a suitable example. **8M**
b Draw the H/W Flowchart for positive numbers. **4M**

OR

- 4 a Explain the logic behind carry - look ahead addition with its circuit diagram. **7M**
b Explain the logic behind High level generate and propagate function circuit diagram. **5M**

UNIT-III

- 5 a Show that the block diagram of the hardware that implements the following register transfer statement P: $R2 \leftarrow R1$. **6M**
b Explain about the way of constructing a 4 line common bus system using multiplexers with a neat diagram. **6M**

OR

- 6 a Write about Bus transfer with neat diagram **5M**
b Write out Register Representations and way it is used. **7M**

UNIT-IV

- 7 a List out some differences between RAM & ROM. **6M**
b List out some differences between SRAM & DRAM. **6M**

OR

- 8 a Explain about Memory Hierarchy. **6M**
b Explain about Memory Management Requirements. **6M**

UNIT-V

- 9 a Define parallel processing? How one can achieve parallel processing with single CPU. **6M**
b Explain about characteristics of Multiprocessor. **6M**

OR

- 10 a List out the conflicts in pipelining and explain about it. **6M**
b Explain about 4-segment Instruction Pipeline with neat diagram. **6M**

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