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**18CS404**

II/IV B.Tech ( Regular )DEGREE EXAMINATION

**November, 2020**

**Fourth Semester**

**Time:** Three Hours

**Computer Science & Engineering**

**Computer Organization**

**Maximum:** 50 Marks

*Answer ALL Questions from PART-A* (1X10 = 10 Marks)

*Answer ANY FOUR questions from PART-B* (4X10=40 Marks)

**Part - A**

1. Answer the following. (1X10=10 Marks)
   a) What is normalization?
   b) Define Microoperation.
   c) $(235.15)_{10} \rightarrow (\ )_{16}$
   d) Define Instruction code.
   e) How to identify the instruction is memory-reference instruction?
   f) What is instruction cycle?
   g) Define effective address.
   h) How to complement the selected bits of an operand?
   i) What is bootstrap loader?
   j) What is the difference between SRAM and DRAM?

**Part - B**

2. a) Explain about complements with examples. 5 M
   b) What are the different binary codes available? Explain. 5 M

3. a) Explain common bus system for four registers. 5 M
   b) Explain Hardware implementation of Shift microoperations. 5 M

4. a) Explain Common Bus System with basic computer registers. 5 M
   b) Explain in detail about Instruction Cycle. 5 M

5. a) Explain the list of Memory-Reference Instructions. 5 M
   b) Explain the design of Accumulator Logic. 5 M

6. a) Explain General Register Organisation with a neat diagram. 5 M
   b) Explain the concept of Instruction Formats. 5 M

7. a) Explain the list of addressing modes. 7 M
   b) Differentiate between internal and external interrupts. 3 M

8. a) Explain the concept of Main Memory. 5 M
   b) Discuss in detail about Memory Hierarchy. 5 M

9. a) Explain in detail about Auxiliary Memory. 5 M
   b) Explain the block dingram of Associative Memory. 5 M

P.T.O.