BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - III Computer Science & Engineering : WINTER : 2024
SUBJECT: MACHINE ORGANIZATION & MICROPROCESSOR

Day : Monday
Date : 09/12/2024

W-25312-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B:

1) All questions are **COMPULSORY**
2) Figures to the right indicates **FULL** marks
3) Assume suitable data **WHENEVER** necessary.

Q.1 List and explain Addressing modes and Instruction sets of 8086. **(10)**

OR

Draw and explain 8086 Architecture in details.

Q.2 The following binary number are stored using 2's complement in a12-bit register with 4 bits after binary point convert them into decimal fraction. **(10)**
Given Number →01101111011.

OR

Draw and explain algorithm for Non-Restoring division for unsigned Integer. Also solve blow example using Non-restoring division algorithm.
Dividend = 11, Divisor =3

Q.3 Describe the various categories of Micro-Instruction address generation techniques. Draw and explain two address field technique. **(10)**

OR

Define the purpose of cache memory. Also describe hardwired implementation of a control unit.

Q.4 Describe the terms:-Snooping & MESI protocols. **(10)**

OR

Describe 2-set associative mapping of cache memory.

Q.5 List & explain three board classification of external or Peripheral devices. **(10)**

OR

When device interrupt occurs. How does the processor determine which device issued interrupt.

Q.6 List and explain Flynn's classification for Parallel Processor. **(10)**

OR

Define clustering also explain cluster configuration methods and its limitation.

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