[22/23]   SEAT No._____

SARDAR PATEL UNIVERSITY
F.Y.B.Sc(CA & IT) –1st SEM Examination- 2019
US01CIIT23: Computer Organization & Digital Electronics

Date: 21/11/2019 , Thursday   **Total Marks 70**

Time : 10:00 A.M to 01:00 P.M

[10]

Q1   Multiple Choice Question

1   Computer hardware refers to the _____ parts of a computer.
    A) Logical   B) Physical   C) Data   D) None of above

2   Which of the following is not an input unit?
    A) Printer   B)Scanner   C)Keyboard   D) None of above

3   _____ is a permanent memory.
    A) EPROM   B) EEPROM   C) RAM   D) ROM

4   The Digital system usually operates on _____ system
    A) Binary   B) Decimal   C) Octal   D) Hexadecimal

5   The number 178 is equivalent to _____ binary.
    A) 111   B) 110   C) 1000   D) 1111

6   In Hexadecimal number system F stands for _____
    A) 15   B) 14   C) 16   D) 12

7   Half adder consists of _____ & _____ gates.
    A) XOR,OR   B) XOR,AND   C) XNOR, AND   D) XNOR, OR

8   An invert gate is also known as _____ gate.
    A) NOR   B) NOT   C) XNOR   D) NAND

9   A multiplexer is also called a _____
    A) Data Multiplier   B) Data Selector
    C) Data Inverter   D) Data Remover

10   _____ is a memory element that stores binary digit.
     A) Binary Adder   B) Decoder   C) Multiplexer   D) Flip-flop

[20]

Q2   Short Questions (Attempt any Ten)

1   Define the term 'Hardware' and 'Software'.

2   What is secondary storage?

3   Give the Full Form 'EEPROM' and 'SSDD'

4   What is 3-bits grouping conversion method?

5   What is number system? List out various numbersystems.

6   Explain the conversion of decimal to Octal method.

7   Explain NAND, OR Gate.

8   Explain Associative Low.

9   Explain half adder in detail.

10   Define encoder in short.

11   Explain D Flip-flop.

12   What is negative clocking?

(P.T.O)

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Q3

A Explain Transfer rate [05]

B Explain Printers in detail. [05]

OR

A Draw a block diagram of basic organization of a computer system and explain the functions of the various units. [03]

B List various applications of computer. [07]

Q4

A Explain the conversion of Binary to Decimal with suitable example. [05]

B Explain binary addition with suitable examples. [05]

OR

A Explain Hexadecimal to Decimal with suitable examples. [05]

B Explain binary subtraction with suitable examples. [05]

Q5

A Prove that ABC' +ABC=AB using truth table. [05]

B Explain XOR, AND, NOR gate. [05]

OR

A Explain AND, NOR, NOT gate. [05]

B Explain de Morgan's first and second theorem. [05]

Q6

A Explain RS flip-flop with NOR Latches and NAND Latches. [10]

A Explain 8 x 3 line encoder and 4 x 1 demultiplexer in detail. [10]

—X—

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