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Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION NOVEMBER – 2016**B.Sc. Information Technology****16UITCC02 – INFORMATION TECHNOLOGY & COMPUTER ARCHITECTURE***Duration of Exam – 3 hrs**Semester – I**Max. Marks – 70*

Part A (10x1= 10 marks)Answer **ALL** questions

1. Transistors replaced vacuum tubes in the _____ generation of computers.
2. Full Form of MICR
3. Full form of CRT
4. Floppy diskette was originally created in 1967 by _____
5. 1 Byte = _____ bit.
6. Find the complement : 101101 = _____
7. In NOT gate the output signal is _____ of input signal.
8. A combinational circuit that performs the arithmetic addition of two binary bits is called a _____
9. Full form of DR
10. Full form of LIFO.

Part B (5X5 = 25 marks)Answer **ALL** questions

- 11a. Explain Data Processing Cycle.

OR

- 11b. Explain types of Scanners.

- 12a. Explain any 3 Impact printers.

OR

- 12b. Explain Non impact printers.

- 13a. Find the answer:

i) $(1011011)_2 = ()_{10}$

ii) $(1011010101)_2 = ()_{16}$

OR

- 13b. Find the answer:

i) $(567)_8 = ()_2$

ii) $(15B)_{16} = ()_2$

14a Draw the logic circuit of following function.

i) $F = A' + B'C + AB$

ii) $F = XYZ' + X'Y + Z$

OR

14b Explain two half adder is equal to one full adder.

15a Explain 3X8 Decoder.

OR

15b Explain 4 bit buffer register in detail.

Part C (5X7 = 35 marks)

Answer **ALL** questions

16a. Explain Types of Input Devices.

OR

16b. Explain Characteristics of the computer.

17a. Explain types of External Storage.

OR

17b. Explain types of Internal Storage.

18a. Find the answer:

i) 101110101×1011011

ii) $10101/100$

OR

18b. Find the answer:

i) 110110110×1101101

ii) $101101/110$

19a What is Logic gate? Explain types of logic gate in detail.

OR

19b What is Flip flop? Explain SR Flip Flop & D Flip Flop.

20a Explain ALU & Accumulator register in detail

OR

20b What is register? Explain shift register in detail.