

Quiz 01

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Course : CSE231

Section : 10

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Ans to the QNo: 01

(a)

$$AB + A(B+C) + B(B+C)$$

$$= AB + AB + AC + BB + BC \quad [\text{Distributive law}]$$

$$= AB + AB + AC + B + BC \quad [\because B.B = B]$$

$$= AB + AC + B + BC \quad [\because AB + AB = AB]$$

$$= AB + AC + B \quad [\because B + BC = B]$$

$$= B + AC \quad [\because AB + B = B]$$

$$= B + AC$$

(Ans).

Ans to the QNO: 02(a)

(i)

$(0110110101.001)_2$ to $(X)_{16}$

$\begin{array}{cccc} \underbrace{0010}_{2} & \underbrace{1011}_{B} & \underbrace{0101}_{5} & \underbrace{0010}_{2} \end{array}$

$= (2B52)_{16}$

(ii)

$$(BABA.CACA)_{16} \text{ to } (X)_2$$

$$\begin{array}{cccccccc} = & B & A & B & A & . & C & A & C & A \\ & \downarrow & \downarrow & \downarrow & \downarrow & & \downarrow & \downarrow & \downarrow & \downarrow \\ & 10 & 11 & 10 & 10 & & 11 & 00 & 10 & 10 \end{array}$$

$$= (1011\ 1010\ 1011\ 1010.1100\ 1010\ 1100\ 1010)_2$$

Ans to the Qno: 02(b)

$$\begin{array}{ccc} 7 & 5 & 1 \\ \downarrow & \downarrow & \downarrow \\ 0111 & 0101 & 0001 \end{array}$$

3 4 3



0011 0100 0011

0 1 1 1 0 1 0 1 0 0 0 1

0 0 1 1 0 1 0 0 0 0 1 1

1 1 1 1 1 1 0 1 0 1 1 1



15



13



7.