Quiz 01

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Course : CSE231

Section : 10

Date : 21-03-2021

Ans to the QNO: 01

(a)

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

$= AB + AB + AC + BB + BC$ [Distributive law]

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

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

$= A'B + AC + B$ [$\because B + BC = B$]

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

$= B + AC$

(Ans).

Ans to the QNO: 02(a)

(i)

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

$= \underbrace{0010}_{2}\ \underbrace{1011}_{B}\ \underbrace{0101}_{5} \cdot \underbrace{0010}_{2}$

$= (2B52)_{16}$.

(ii)

$(BABA.CACA)_{16}$ to $(x)_2$

= B A B A . C A C A

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1011 1010 1011 1010 1100 1010 1100 1010.

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

Ans to the QNO : 02(b)

7 5 1

↓ ↓ ↓

0111 0101 0001

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

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

15 13 7.