Harsh Muttal 1082

Date

Page No.

Tutorial - 0 CSE 5C

Gr-2

Ans-1 $(1\cdot10101)_2 = (53)_{10}$

$2^5\ 2^4\ 2^3\ 2^2\ 2^1\ 2^0$

$32+16+0+4+0+1$

$= 53$

Ans-2 $(0\cdot1011)_2 = (0\cdot687)_{10}$

$2^{-1}\ 2^{-2}\ 2^{-3}\ 2^{-4}$

$0.5+0+0.125+0.062$

$= 0.687$

Ans-3 -(a) $(25)_{10} = (11001)_2$

2	25
2	12 – 1
2	6 – 0
2	3 – 0
	1 – 1

(b)

2	58
2	29 – 0
2	14 – 1
2	7 – 0
2	3 – 1
	1 – 1

$= (111010)_2$

DELTA Notebook

Harsh Mittal Date Page No.

Ans-4 $(0.625)_{10} = (0.101)_2$

$0.625 \times 2 = 1.25 - 1$

$0.25 \times 2 = 0.5 - 0$

$0.5 \times 2 = 1.0 - 1$

Ans-5 $(01000010)_2$

$2^7\ 2^6\ 2^5\ 2^4\ 2^3\ 2^2\ 2^1\ 2^0 = (66)_{10}$

$0 + 64 + 0 + 0 + 0 + 0 + 2 + 0$

$= 66$

Ans-6 Base or radix of a number is positional weight of numbers

Ans-7 The number system with radix 12 is duodecimal.