Name : Ibrar
Roll no. 19P-0104
Numerical computing (B)

Assignment #2

100.875

convert into binary form.

100

2	100
2	50 – 0
2	25 – 0
2	12 – 1
2	6 – 0
2	3 – 0
	1 – 1

.875

// multiplying = integ + fractional part

.875 x 2 = 1.75 – 1

.75 x 2 = 1.5 – 1

.5 x 2 = 1.0 – 1

(0.111)

(1100100)

$\Rightarrow$ {1100100.111}

⇒ find exponent (Baised)

11001100.111

Baised exponent $= 6+127$

$= (133)_{10}$

$= (10000101)_2$

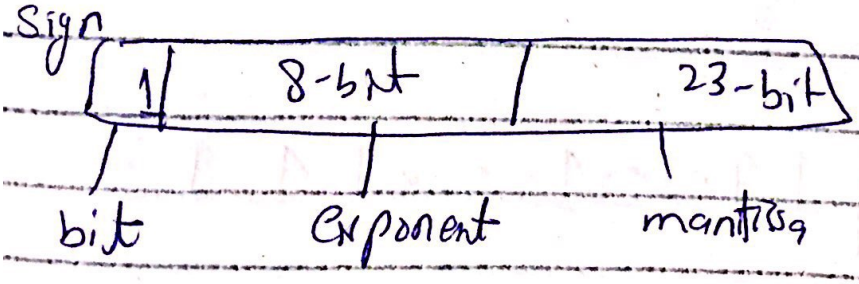
⇒ Find Mantissa

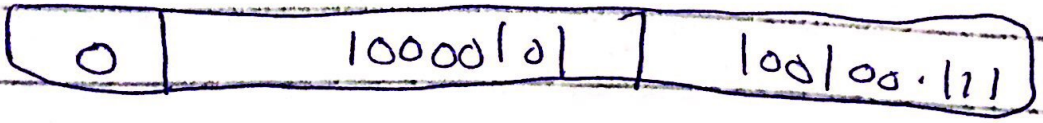
$1.00100.111$

Note: ignore left most digit 1

(1.00100111) is Mantissa

know set in IEEE-754 format in 32-bits





Sign exponent mantissa.