modifier bet (00) 00 > no désplacement 017 8 bet signed desp 10 > 16/32 bet signed desp 11-> regester field 00 -> modifier bit mmm > R/M field ppp -> negester field Mov mem, peg 34 1 100010 DW 00 सवल Mor neg, mem Then disp Mov mem, imm -> [11000] [W] [00] MOV WORD PTR then disp I data [BX+1000H], 1234H MOV peg, imm -> [101] [w] Inn MOV AX, 1234 H (4) MOV Seg, neg Mor seg, mem

(3) Mov seg, neg

Mov seg, mem

Mov reg, seg

Mov mem, seg

Segment reg can be moved ben

Mov BX, D5

Go Segment overwide prefix > 001 XX 110 then previous

(3) Segment overwide prefix → [001] [XX] [110] then previous

MOV CS: [BX], DL

CS → 01

CS → 10

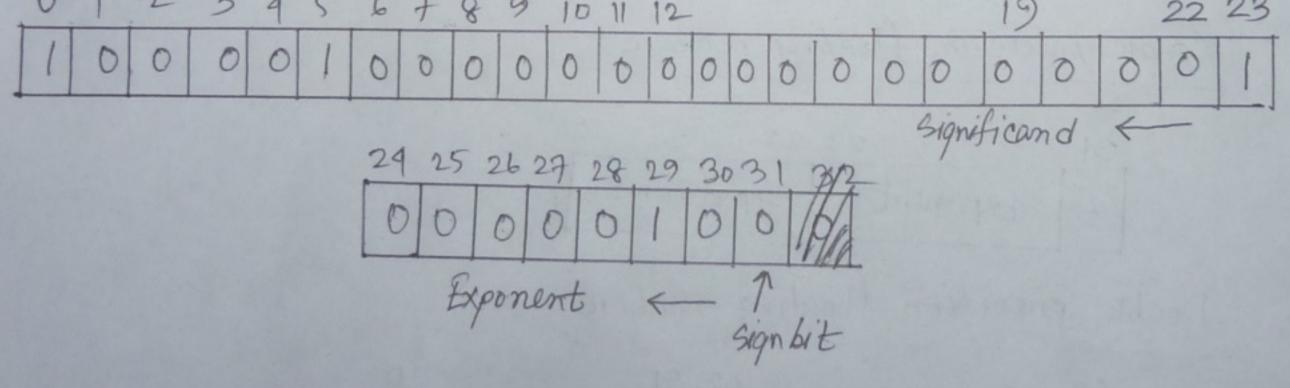
DS → 11

(S) IN acc, pt -> [1110010] [W] [Port] (fixed point) IN AL, 12H () IN acc, DX -> [1110110] [w] (varieable port) IN AL, DX

For OUT it is 115 (10) & 119 (10)

```
Decemal of 101011
Birary of 10
                     1x25+0x29+1x23+0x22+1x2+1x2
   2/10
2/5-0
2/2-1
2/1-0
                     = 32+0+8+0+2+1
                     = 43
So too 10(10) = 1010(2)
Binary of 0.125
                       Binary of 6.625
                       6(10)=110(2)
  0.125 x 2 = 0.25
                         0.625(10)=0.101(2)
  0.25 x 2 = 0.5
                         So 6.625 (10) = 110.101(2)
  0.5 x2 = 1
 so 0.125(10) = 0.001 (2)
 Decimal of 6525 110.101
 1x2+1x2+0x20+1x2+0x2-2+1x2-3
 = 9+2+0+0.5+0+0.125
 = 6.625 (10)
 Single precision floating number
      5 Exponent Significand
 Double precision floating number
                                       O LSB
      63 62
      5 Exponent Significant
 Represent 12:25 in Single precision floating number
     12.125 (10) = 1100.001 (2)
 Normalized = 1.100001 x 23
```

Baised Exponent = 3+127=130(10)=10000010(2) Tsingle precession 2(A 127 2008 double precession 2(A 1023 (A) 49/026) Sign = 0 Exponent = 1.0000010 Significand = 10000100000000000000000000 (23 diget) (positive zero > sign=0, others o 20.25 (Neg Zerro > Sign=1, others o (intinety -> Sign=0/1, E+1, 5+0 0.25 = ? (#) NAN + E 71, 5+ not all Zero Reversed task 10000010-127(10)=11 11(20) = 3(10) NOW 1.100001 x23 = 1/000.001 11000001 = 12.125 As sign=0 so 12.125 2 3 4 5 6 7 8 9 10 11 12 10000000000 significand <



Foot note

Negetive int are stoned in 2's complement

-10 = 11111111 11111111 11111111 11110110 (B)

FF FF FF F6 (H)