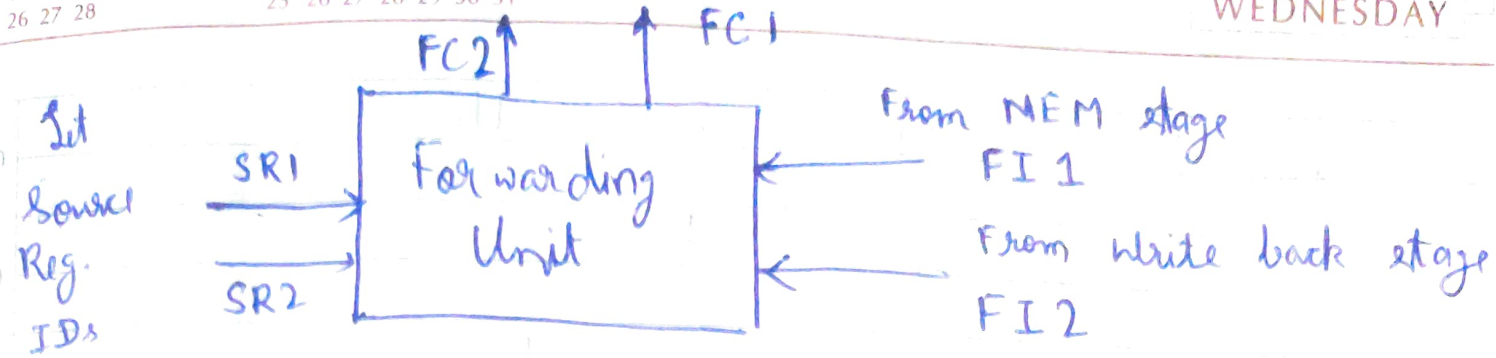
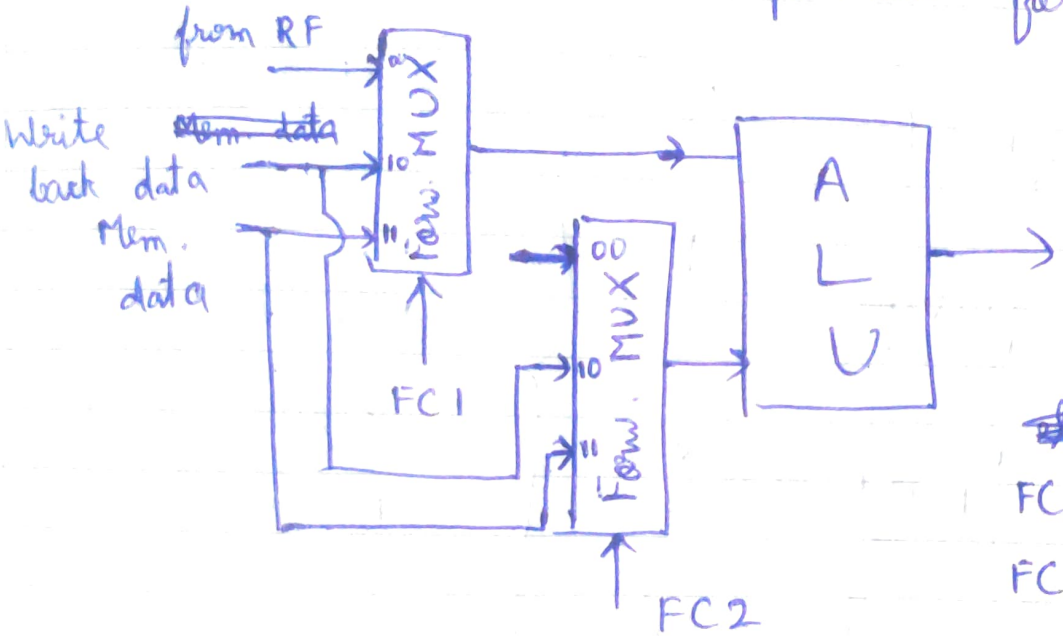


FC1 & FC 2 are control signals output from Forwarding unit which ~~uses~~ decides select signal to mux to choose operands for ALU



FC = 00 ~~sel~~ selects RF data,
FC = 10 selects WB data,
FC = 11 selects Mem. data.

Conditions:

```
if    SR1 == FI1   then
        PC stall ;
        FC1 = 11 ;
if    SR2 == FI1   then
        PC stall ;
        FC2 = 11 ;
```

else if SR1 == FI2 then

FC1 = 10

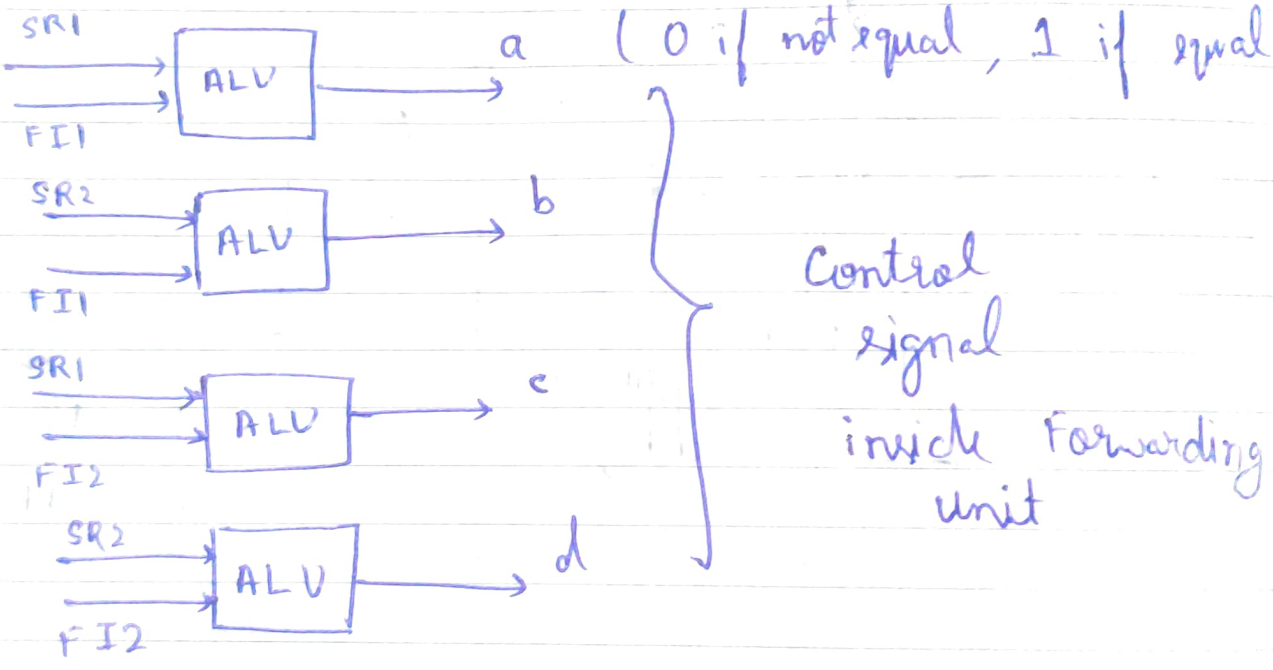
else if SR2 = FI2 then

~~FC1 = 00~~

FC2 = 10

else FC1 = 00 , FC2 = 00

∴



Set FC1 = xy & FC2 = wv

(x)

ab \ cd	00	01	11	10
00	0	X 0	1	1
01	X 0	NA	NA	0
11	1	NA	NA	NA
10	1	0	NA	NA

NA = Not Applicable

$x = \bar{a}\bar{b}c + a\bar{c}\bar{d}$

(y)

ab \ cd	00	01	11	10
00	0 X	X	0	0
01	X	NA	NA	0
11	1	NA	NA	NA
10	1	0	NA	NA

$y = a\bar{c}\bar{d}$

(w)

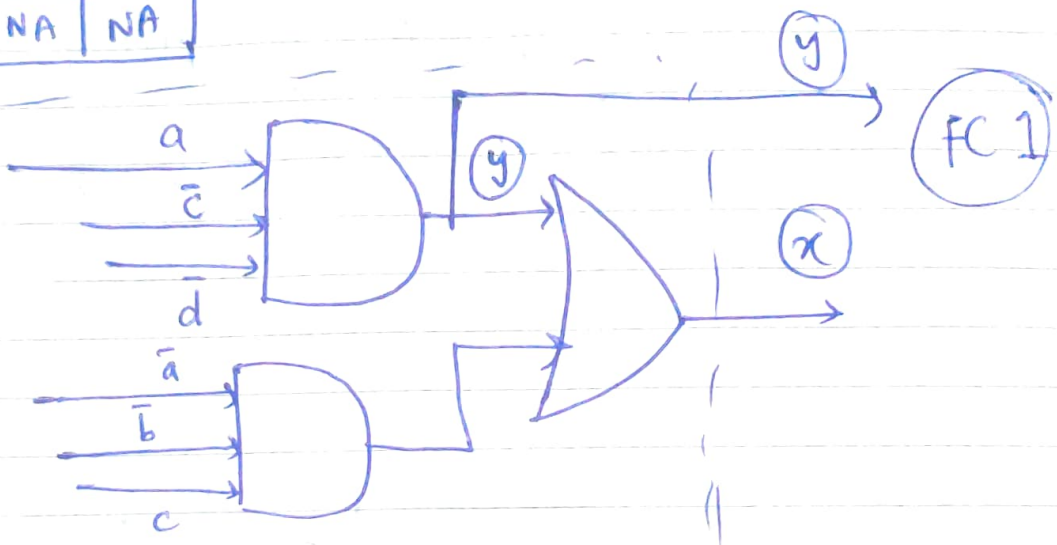
ab \ cd	00	01	11	10
00	0	1	1	0
01	1	NA	NA	NA
11	1	NA	NA	NA
10	0	NA	NA	NA

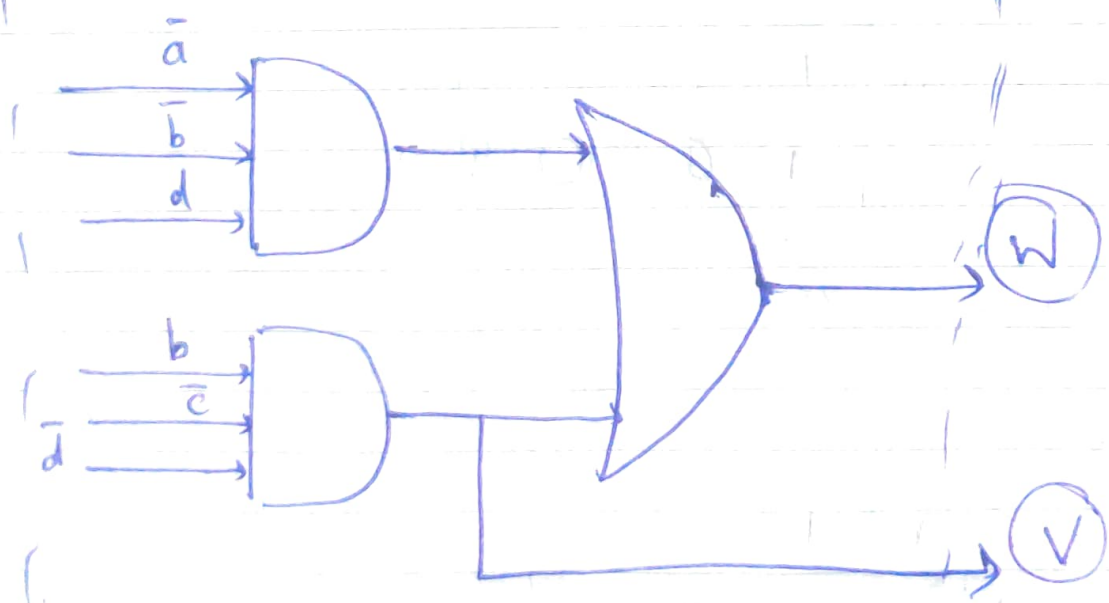
$w = \bar{a}\bar{b}d + b\bar{c}\bar{d}$

(v)

ab \ cd	00	01	11	10
00	0	0	0	0
01	1	NA	NA	NA
11	1	NA	NA	NA
10	0	NA	NA	NA

$V = b\bar{c}\bar{d}$





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Forwarding Unit