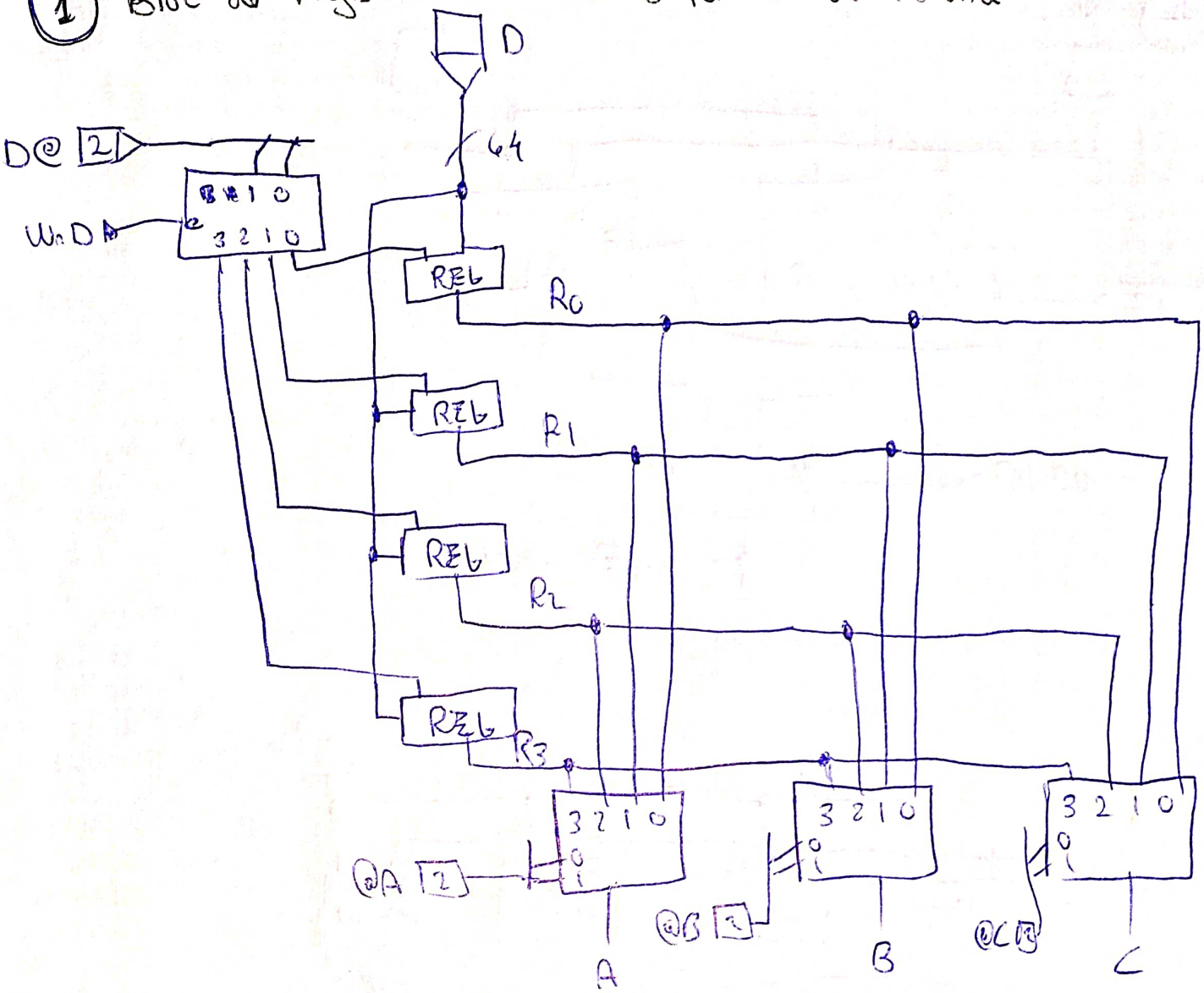
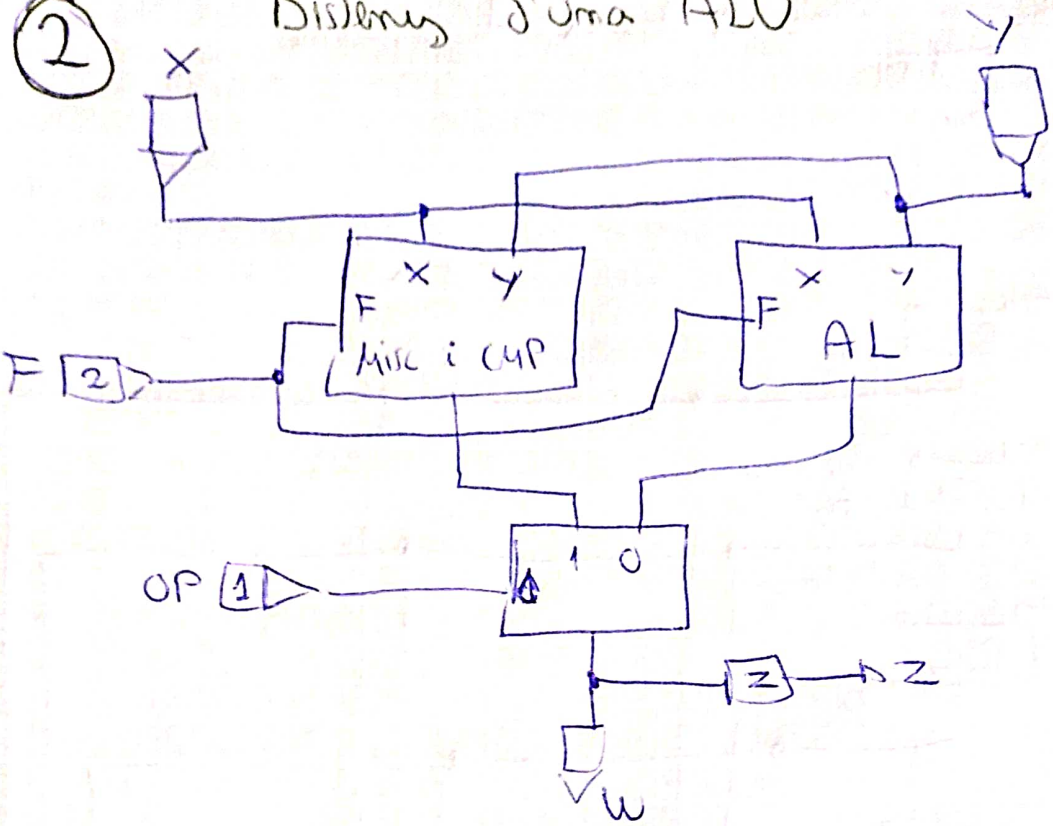
Albert Comas ACTIVITATS T.8 Grup: 20

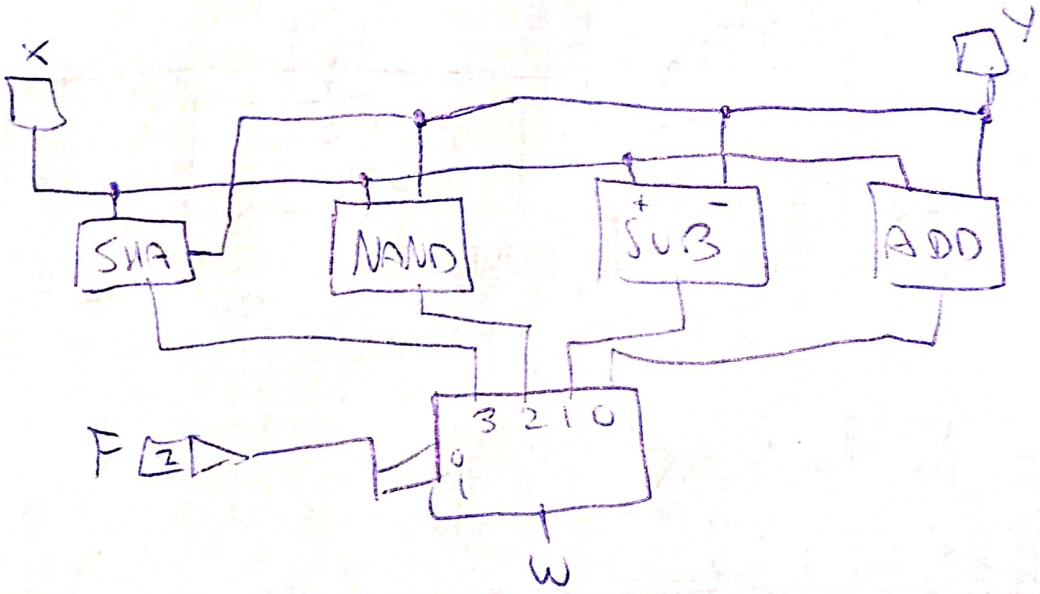
(1) Bloc de registres amb 3 portes de lectura



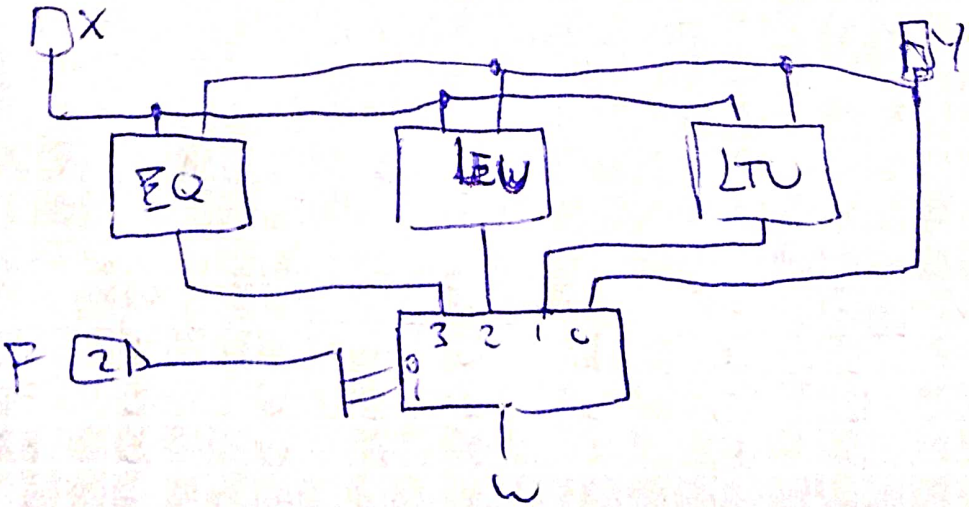
(2) Disseny d'una ALU



AL



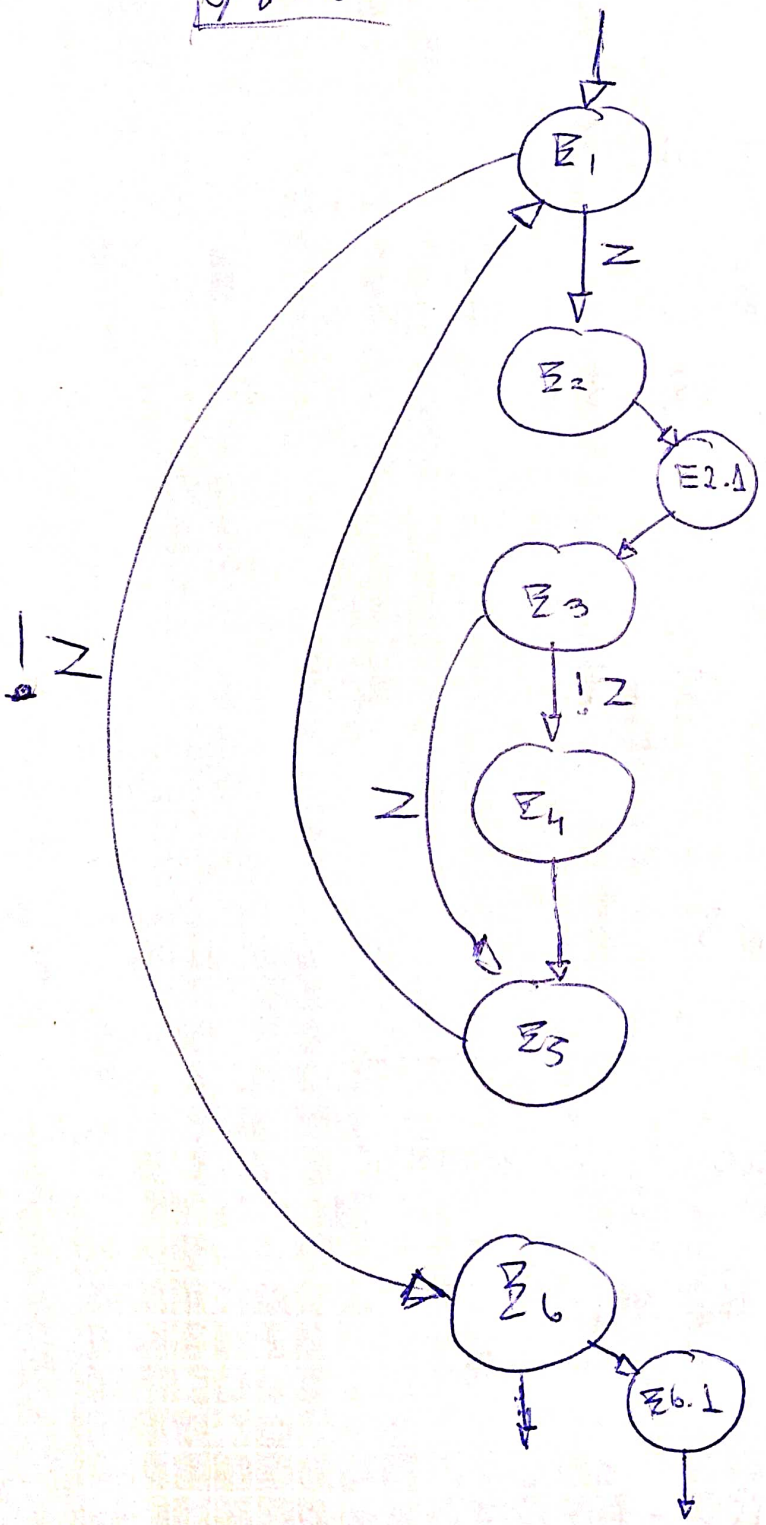
Misc i CMP



Z = False
!Z = True

Dividir /2 es desplazar 1 posición a la derecha ⇒ Shift negativo

(3) 0 0100
0 1000 = 8



CMPEQ -, R5, R4

SHAI R2, R2, -2

SUBI R2, R2, 1

CMPLEUI -, R2, 3

ADD R1, R1, R4

ADDI R5, R5, 1

SHLI R3, R3, 1

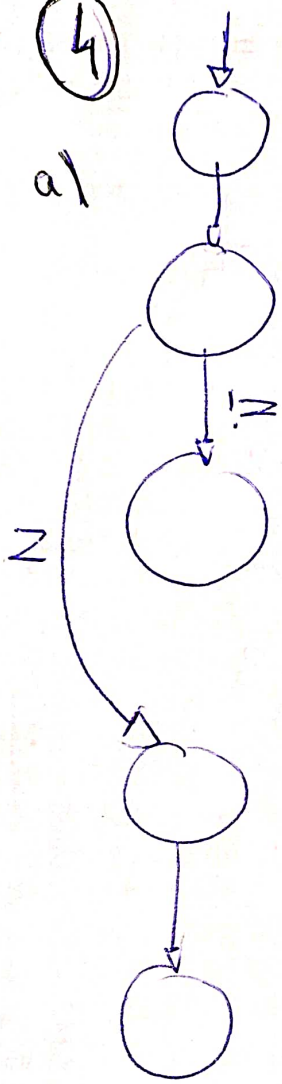
ADDI R3, R3, 1

Z = Jah
!Z = True

R1 <= R4
R4 < R1

4

a)



MOVEI R4, 50

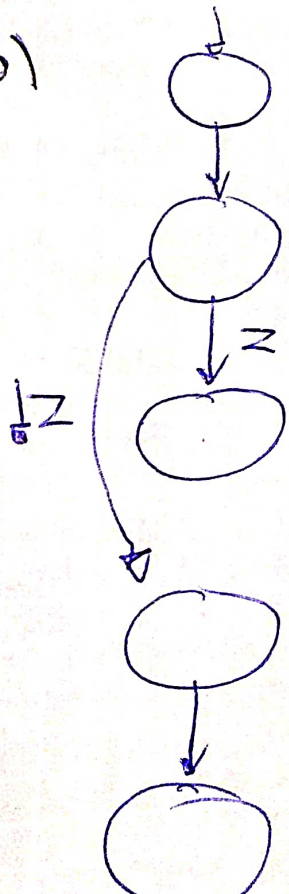
CMPLEU -, R1, R4

SHLI R3, R5, -3

SUBI R3, R5, +19

MOVE R6, R3

b)



MOVEI R4, 50

CMPLTU ~~f~~, R4, R1

SHLI R3, R5, -3

SUBI R3, R5, +19

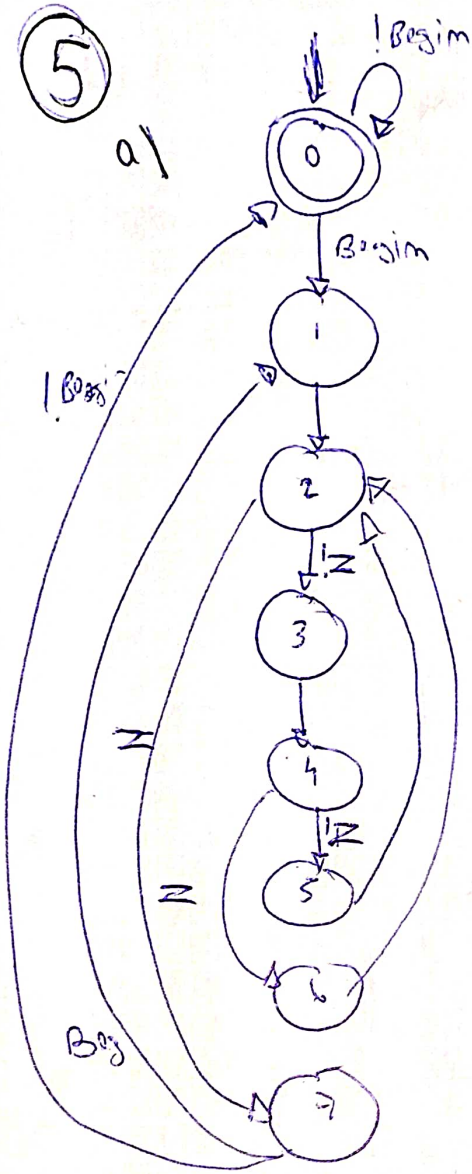
MOVE R6, R3

Màxim

R1 < R2

5

a)



IN R0 // End = 0

IN R1 // End = 0

SUBI R0, R0, 1 // End = 0

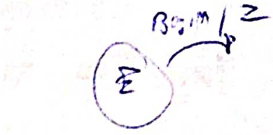
IN R2 // End = 0

CMPLT R[illegible], R1, R2 // End = 0

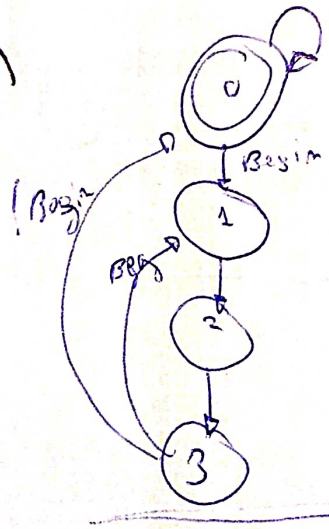
Move R1, R2 // End = 0

NOP // End = 0

OUT R1 // WR0 // end = 1



b)



ComVi Signe

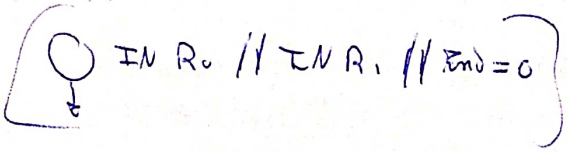
IN R0 // end = 0

NOT R0, R0 // End = 0

ADDI R0, R0, 1 // end = 0

OUT R0 // WR0 // end = 1

c) No es POT fer Perquè no Poden entrar 2 dades en un mateix cicle.



incorrecte

z = 1 → if z (salto) | z = 0 → if !z (verdadero)

(7) Continuación de las ROMs

b_1	b_0	z	b_1^+	b_0^+	hexa
0	0	0	0	1	0x01
0	0	1	1	0	0x02
0	1	0	1	0	0x02
0	1	1	1	0	0x02
1	0	0	0	1	0x01
1	0	1	0	0	0x00
1	1	0	0	0	0x00
1	1	1	0	0	0x00

ROM Q^+

ROM OUT

b_1	b_0	Hexa ROM OUT
0	0	0x0824A0000
0	1	0x2B11CFABC
1	0	0xCA70FFFE
1	1	0x0000000000