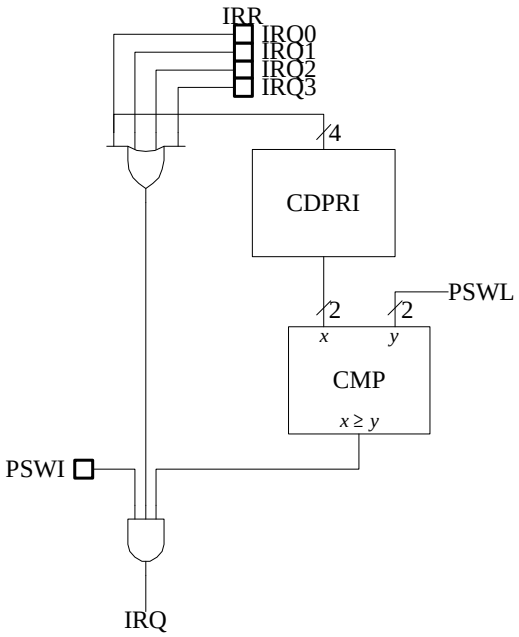
 

# Ispit iz Arhitekture i organizacije računara 2

a)




b)

```
; Dohvatanje instrukcije
BEGIN:     PCout,MARin,G,incA,ldTEMP
           read,TEMPout2,PCin
           wmfc
           MDRout,IRin
; Dekodovanje instrukcije
           opcase
; Aritmetičko-logičke binarne instrukcije:
BIN:       regsel,REGout2,MARin
           read
           wmfc
           ACCout1,MDRout,ALUop,ldTEMP,ldPSW,branch(CMP,LCMP)
           TEMPout1,ACCin1,branch(IReq,INTH)
           branch(,BEGIN)
LCMP: branch(IReq,INTH)
           branch(,BEGIN)
; Obrada spoljašnjih maskirajućih prekida
INTHIRQ:   X15out1,incA,ldTEMP
           TEMPout2,MARin,G,incA,ldTEMP
           ACCout2,MDRin
           write
           wmfc
           TEMPout2,MARin,G,incA,ldTEMP
           PSWout,MDRin
           write
           wmfc
           TEMPout2,MARin,X15in2
           PCout,MDRin
           write
           wmfc
           intack
```

```
                wmfc
                MDRout,MARin
                read
                wmfc
                MDRout,PCin,clIRR,clI,ldPSWL,branch(,BEGIN)
```

c)

```
                LOAD  X0,100h    ; X0:=100h, Adr(a)
                LOAD  X1,99h     ; X1:=99h,  Adr(n)
                LOAD  X2,98h     ; X2:=98h,  Adr(s)
                CLRA             ; Acc:=0
                STORE X2         ; s:=0
        LP:     LOAD  X2         ; Acc:=s
                ADD   X0         ; Acc:=Acc+a[i]
                STORE X2         ; s:=Acc
                MOV   A,X0       ; i:=i+1
                INC
                MOV   X0,A
                LOAD  X1         ; n:=n-1
                DEC
                STORE X1
                JNZ   LP         ; if n>0 goto LP
```