Електротехнички факултет у Београду
Катедра за рачунарску технику и информатику

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Организација рачунара – К3 решење

1.(20)

```
        LOAD #0000h
        STORE MemSem0
        LOAD #0000h
        STORE MemSem1
        LOAD #0100h
        STORE MemCntA
        OUT FF03h
        LOAD #2000h
        STORE MemDstA
        LOAD #3000h
        OUT FF05h
        LOAD #8001h
        OUT FF10h
        LOAD #0001h
        OUT FF20h
        LOAD #8001h
        OUT FF00h
Wait:   LOAD MemSem0
        AND MemSem1
        JZ Wait
        …
        LOAD #0100h
        STORE MemCnt
        LOAD #2000h
        STORE MemA
        LOAD #3000h
        STORE MemB
        LOAD #4000h
        STORE MemC
        LOAD #5000h
        STORE MemD
Loop:   LOAD (MemA)
        ADD (MemB)
        STORE (MemC)
        LOAD (MemA)
        SUB (MemB)
        STORE (MemD)
        INC MemA
        INC MemB
        INC MemC
        INC MemD
        DEC MemCnt
        JNZ Loop
        …
        LOAD #0000h
        STORE MemSem1
        LOAD #0100h
        STORE MemCntD
        OUT FF03h
        LOAD #4000h
        OUT FF04h
        LOAD #5000h
        STORE MemSrcD
        LOAD #0081h
        OUT FF30h
        LOAD #0081h
        OUT FF20h
        LOAD #8083h
        OUT FF00h
Loop1:  IN FF31h
        AND #0010h
        JZ Loop1
        LOAD (MemSrcD)
        OUT FF32h
        INC MemSrcD
        DEC MemCntD
        JNZ Loop1
        LOAD #0000h
        OUT FF30h
Wait1:  LOAD MemSem1
        AND #0001h
        JZ Wait1
        HALT

Прекидна рутина за PER0:
        PUSHA
        IN FF12h
        STORE (MemDstA)
        INC MemDstA
        DEC MemCntA
        JNZ Back
        LOAD #0001h
        STORE MemSem0
        LOAD #0000h
        OUT FF10h
Back:   POPA
        RTI

Прекидна рутина за DMA:
        PUSHA
        LOAD #0000h
        OUT FF20h
        OUT FF00h
        LOAD #0001h
        STORE MemSem1
        POPA
        RTI
```

2. (20) Погледати материјале са предавања.