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D9A/47

Micro Controllers

Assignment 2

* Write assembly language programs to perform following tasks:

1. Convert given packed BCD into its equivalent ASCII code.

→
```
    ORG    0800H              R0: 50H = 23 → input
    MOV    R0, 50H
    MOV    A, @R0
    MOV    R2, A
    ANL    A, #0FH
    ORL    A, #30H
    INC    R0
    MOV    @R0, A
    MOV    A, R2
    SWAP   A
    ANL    A, #0FH
    ORL    A, #30H
    INC    R0
    MOV    @R0, A
Here: SJMP Here
    END
```

Find the smallest from array of 10 elements

```
ORG 0000H
mov DPTR, #3000H
MovX A, @DPTR
Mov B, A
DJNZ R0, L2
SJMP STP


INC DPTR
MovX A, @DPTR
CJNE A, B, NEQ
SJMP L3


JNC L3
SJMP L1
Mov R1, B
END
```
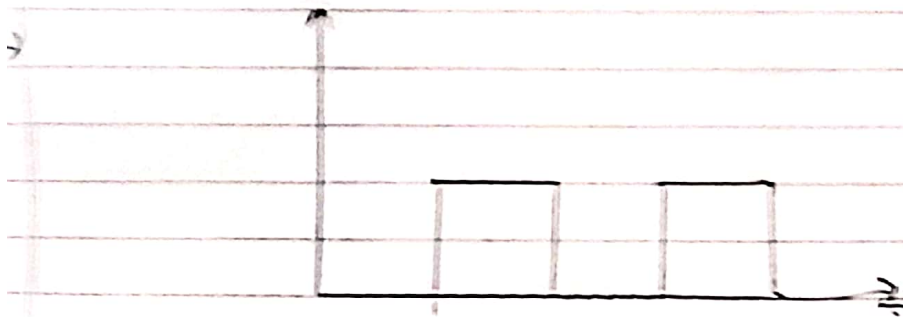
Generate square wave on P0 pins with 50% duty cycle

```
L2: MOV A,#00H
    MOV P0,A
    CALL L1
    MOV A,#0FFH
    MOV P0, A
    CALL L1

    SJMP L2
L1: MOV R0,#100H
L3: NOP
    NOP
    DJNZ R0,L3
    RET
```