

University of Jordan
School of Engineering
Department of Computer Engineering
Embedded Systems CPE0907333

HW#1

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Dr. Ramzi Saifan

Q1) Write a program that inspects data memory locations that have odd addresses in the range D'20' to D'50'. If the value in each address is even, it will be incremented by one. If the value is odd, it will be multiplied by two. You should use indirect addressing.

Q2) Write a program that gives an approximate delay of 100 ms. The code should have a loop and inside the loop, you call a subroutine which generates 4 ms exact delay. Assume Fosc=1 MHz.

Q3) Write assembly code that checks data memory word with address 0x22 and based on the value, it performs the following:

```
If [0x22]> 10
    [0x22] = [0x22] + 5
    If [0x22]<25
        [0x22] = [0x22] * 2
    Else
        [0x22] = [0x22] * 2 + 4
Else
    [0x22] = [0x22] * [0x22]
```