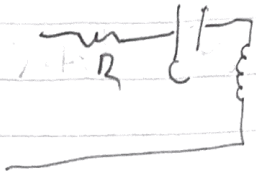
Assembly Hw 3

1. option A)  using an RL circuit to set frequency.

option B) Quartz crystal uses piezo electric effect to provide frequency.

Quartz crystal is preferred over RL circuit because it is more accurate and is independent of temperature. The RL circuit can have impurities.

2. Memory is read in with each clock cycle. There are four separate steps to reading in memory. Each one takes a single clock cycle.

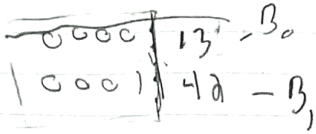
Steps:

1. Place the address of the value you want to read on the address bus.
2. Assert the processor's RD pin.
3. wait one clock cycle for the memory chips to respond.
4. Copy the data from the data bus into the destination operand.

Computer CPU's are often described in terms of their clock speeds. Recently used instructions can be stored in cache for quick access.

3. 1. var DWORD ? ← unsigned signed var SDWORD?
   2. signed var SBYTE? unsigned var BYTE?
   3. var WORD 4137h
   4. var BYTE "Fundamentals of Computing", 0
   5. Circumference of a circle = Pi * D =

4. okra WORD 42134



potato DWORD FACE64A1h

0000	A1
0001	64
0002	CE
0003	FA

5. list DWORD 5C, 75, 1CC, 15C, 25C
NumberOfElements = ($ - list) / 5

6.
```
.386
.model flat, stdcall
.stack 4096
ExitProcess PROTO, dwExitCode: DWORD

.code
main PROC
    mov eax, 5
    add eax, 6
    sub eax, 3

    INVOKE ExitProcess, 0
main ENDP
END main
```