**Chapter 9**

**8.15 Interrupt-driven I/O:**

***a.* What does the following LC-3 program do?**

1)IE is given 1 which means interrupt service can be driven when Ready bit is also 1.

2)It will output ‘2’ to the monitor continually.

***b.* If someone strikes a key, the program will be interrupted and the keyboard interrupt service routine will be executed as shown below. What does the keyboard interrupt service routine do?**

It will execute echo twice.

***c.* Finally, suppose the program of part *a* started executing, and someone sitting at the keyboard struck a key. What would you see on the screen?**

1)If the interrupt happened before LD R0, B, it will echo three times because R0 is changed to the same value as the input. Then it will be followed by ‘2’ continually.

2)Else, the program will first output ‘2’ for several times, and echo twice after interrupt. Then it will be followed by ‘2’ continually.

**Chapter 9**

**9.19**

LD R2, MASK8

JSR HARDDISK

BR END

LD R2, MASK4

JSR ETHERNET

BR END

LD R2, MASK2

JSR PRINTER

BR END

JSR CDROM

END RET

(the order of mask is based on the bit[] and higher privilege should use JSR instruction first )

**Chapter 10**

**10.11 In the example of Section 10.2.3, what are the contents of locations x0lFl and x01F2? They are part of a larger structure. Provide a name for that structure. *(Hint:* See Table A.3.)**

x0lFl x6200

x01F2 x6300

Vector Table ( they are not in A.3. but I think them should be)