Homework 3

1. Why might you want to write a program in a machine-independent language instead of a machine-dependent language? Why might a machine-dependent language be more appropriate for certain types of programs?

2. Why is so much attention today focused on object-oriented program?

3. What, if anything, prints when each of the following statements is performed? If nothing prints, then answer "Nothing." Assume x = 2 and y = 3.

```
a) printf(( "%d", x);
b) printf( "%d", x+x);
c) printf( "x=");
d) printf( "x=%d", x);
e) printf( "%d = %d", x+y, y+x);
f) z = x + y;
g) scanf( "%d%d", &x, &y);
h) /* printf( "x+y = %d", x+y ); */
i) printf("\n");
```

4. State the order of evaluation of the operators in each of the following C statements and show the value of x after each statement is performed.

```
a) x = 7 + 3 * 6 / 2 - 1;
b) x = 2 % 2 + 2 * 2 - 2 / 2;
c) x = (3 * 9 * ( 3 + ( 9 * 3 / ( 3 ) ) ) );
```

5. Write codes to print your initials in block letters down the page. Construct each block letter out of the letter is represents as shown below.

```
PPPPPPPPP
    P    P
    P    P
    P    P
     P P

   JJ
  J
 J
  JJJJJJJJ

DDDDDDDDD
D        D
D        D
 D       D
   DDDDDD
```