Name: KEY **Id#**

ICS 103, Term 103

Computer Programming in C

Quiz# 2

Date: Tuesday, July 19, 2011

Q1. Determine the output of the following program:

```
#inclide <stdio.h>
int main (void) {

  int j, k=1;
  do {
     for(j=0; j < abs(3-k); j++)
         printf("*");
     printf("%d\n",j);
     k++;
  } while (k <= 5);
  return 0;
}
```

```
**2
*1
0
*1
**2
```

Q2. Rewrite the following shaded part using **do while loop** instead of while loop:

```
#include <stdio.h>
int main(void) {
int i;
printf("Enter a number: ");
scanf("%d",&i);
while (i<0 || i>100){
  printf("Enter a number: ");
  scanf("%d",&i);
}
return 0;
}
```

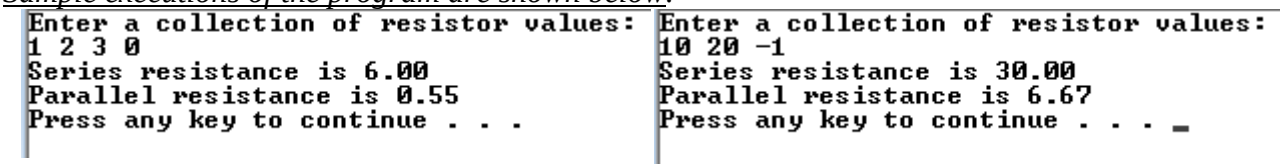
```
do {

     printf("Enter a number: ");
     scanf("%d",&i);

}while (i<0 || i>100){
```

Q3. Write a program that finds the equivalent series and parallel resistance for a collection of resistor values. Your program should compute the equivalent series and parallel resistances for all resistors in the collection correct up to two decimal places. Use any **non-positive** value to indicate the end of the program data. Note that the series resistance is computed as Rs=R1+R2+R3+…, while the parallel resistance is computed as Rp=1/(1/R1+ 1/R2+1/R3+…).

Sample executions of the program are shown below:




```
#include <stdio.h>
#include <stdlib.h>

int main(void){

double r, sr=0, pr=0;
    printf("Enter a collection of resistor values:\n");
    scanf("%lf", &r);
    while (r>0){
          sr += r;
          pr += 1/r;
          scanf("%lf", &r);
    }

    pr = 1 /pr;
    printf("Series resistance is %.2f\n", sr);
    printf("Parallel resistance is %.2f\n", pr);
    system("pause");
    return 0;
}
```