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) {**

\*\*2

\*1

0

\*1

\*\*2

 **int j, k=1;**

 **do {**

 **for(j=0; j < abs(3-k); j++)**

 **printf("\*");**

 **printf("%d\n",j);**

 **k++;**

 **} while (k <= 5);**

 **return 0;**

**}**

**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;**

**}**

#