Name: KEY Id#

ICS 103, Term 132

Computer Programming in C

Quiz# 2

 Date: Sunday, March 9, 2014

**Q1.** Consider the following program. What will be the output for the different values of x typed by the user?

#include <stdio.h>

int main() {

int x ;

|  |  |
| --- | --- |
| Value of x typedBy user | Program output |
| **4** | **7** |
| **2** | **8** |
| **5** | **10** |
| **0** | **5** |
| **15** | **19** |

scanf("%d",&x);

switch(x) {

 case 4:

 case 2: if(x==4)

 x=x-3;

 x=x+1;

 case 5:

 case 0: x=x+2;

 case 3:

 case 1: x=x+3;

 break;

 default : x=x+4;

 }

 printf("%d\n",x);

return 0;}

**Q2.** Fill the column of **printed output** for the corresponding input. The program is run 5 times and each time the input is shown in the first column.

#include <stdio.h>

|  |  |
| --- | --- |
| **INPUT** | **PRINTED OUTPUT** |
|  **15 -3** | **D** |
|  **15 10** | **A** |
|  **19 5** | **C** |
|  **20 10** | **E** |
|  **14 10** | **B** |

int main () {

int x,y;

scanf("%d%d",&x,&y);

if(x<20)

 if(y>=10)

 if (x>= 15)

 printf("A");

 else

 printf("B");

 else

 if(y >= 0)

 printf("C");

 else

 printf("D");

else

 printf ("E");

return 0;

**Q3.** Write a function that receives the Cartesian coordinates of two points (x1,y1) and (x2,y2) and computes and prints their midpoint computed by the following formula:

$$\left(xm,ym\right)=( \frac{x1+x2}{2},\frac{y1+y2}{2} )$$

Assume that the input arguments are of type double.

void MidPoint (double x1, double y1, double x2, double y2)

{

 double xm = (x1 + x2)/2;

 double ym = (y1 + y2)/2;

 printf(“The mid point of (%.2f,%.2f) and (%.2f,%.2f) is (%.2f,%.2f) \n”, x1, y1, x2, y2, xm, ym);

}