

ICS 103  
Sample Quiz 2

**Question 1: (4 points)**

Write the results of the expressions shown below:

Expression	Result
<code>!0 &amp;&amp; 1    0</code>	<b>1</b>
<code>100 + 3 &gt; 5 * 2</code>	<b>1</b>
<code>10 &gt; 5 &gt; 2</code>	<b>0</b>
<code>!(100/20 == 20/4)</code>	<b>0</b>

**Question 2: (7 points)**

Determine the output of the following programs for each of the input values entered by the user. If no output is displayed, write "No Output"

**I)**

```
#include <stdio.h>
int main(void)
{
    int x,y;
    printf("Enter the values of x and y\n");
    scanf ("%d%d", &x, &y);
    if (x==8)
    if (y=5)
    printf("A ");
    else
    printf("B ");
    printf("C ");
    printf("D ");
    return 0;
}
```

User Input	Program Output
5 8	<b>C D</b>
7 5	<b>C D</b>
8 1	<b>A C D</b>

**II)**

```
#include <stdio.h>
int main(void)
{
    int x,y;
    printf("Enter the values of x and y\n");
    scanf ("%d%d", &x, &y);
    if( !(x<5) || !(y>=7) )
    printf("A ");
    if( y==7 )
    printf("B \n");
    else if( x=5 )
    printf("C\n");
    return 0;
}
```

User Input	Program Output
5 7	<b>A B</b>
3 7	<b>B</b>
3 6	<b>A C</b>
3 8	<b>C</b>

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**Question 3: (4 points)**

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;
scanf("%d",&x);
switch(x) {
case 3:
case 6: if (x==6)
        x=x-5;
        x=x+11;
case 1:
case 0: x=x+2;
case 4: break;
case 2: x=x+5;
        break;
default : x=x-9;
}
printf("%d\n",x);
return 0;}
```

Value of $x$ typed by user	Program output
3	16
6	14
5	-4
4	4