

## Quiz 5

PROBLEM SOLVING IN C  
(CSCE 105, SPRING 2006)

URL: <http://www.cse.unl.edu/~cstrobe/csce105s06/>

12th April, 2006

(20 points)

Name :  
Course No : **CSCE105**

1. (5 points)

Given the following table (where ‘–’ indicates no value):

Type	Name	Memory Location	Value
int	x	0x234	10
int*	y	0x238	0x242
int	z	0x242	45
int*	b	0x250	–

What will the following lines of code output?

(a) `b = y;`  
`y = &z;`  
`*b = 15;`  
`printf("%d %d\n", *y, *b);`  
**ANSWER: 15 15**

(b) `b = &x;`  
`*b = 15;`  
`*y = 13;`  
`printf("%d %d\n", x, z);`  
`y = b;`  
`*b = 15;`  
`*y = 13;`  
`printf("%d %d\n", x, z);`  
**ANSWER:**  
**15 13**  
**13 13**

## 2. (15 points)

For the following code segment, write a function prototype, function definition, and function call that will cause the two `printf` statements marked with a '\*' to display `x1` then `x2` and `x2` then `x1`, respectively.

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

```
-1-> void Swap(int *x, int *y);
```

```
int main() {  
    int x1, x2;  
  
    printf("Enter two numbers to be swapped > ");  
    scanf("%d%d", &x1, &x2);  
    * printf("x1: %5dx2: %5d\n", x1, x2);  
    -2-> Swap(&x1, &x2);  
    * printf("x1: %5dx2: %5d\n", x1, x2);  
    return 0;  
}
```

```
-3->
```

```
void Swap(int *x, int *y) {  
    int temp;  
    temp = *x;  
    *x = *y;  
    *y = temp;  
}
```