

## Quiz 1

PROBLEM SOLVING IN C  
(CSCE 105, SUMMER 2006)

URL: <http://www.cse.unl.edu/~cstrope/csce105su06/>

(20 points)

14th July, 2006

Name :  
Course No : **CSCE105**

1. (5 points)

In the following table, specify which of the identifiers are (a) C reserved words, (b) standard identifiers, (c) conventionally used as constant macro names, (d) other valid identifiers, and (e) invalid identifiers:

Identifier	(a, b, c, d, or e)
void	
MAX_LEN	
part#2	
my_name	
return	
#insert	
time	
printf	
Int	
sqrt	

2. (5 points)

Given the constants and the variable declarations

```
#define PI 3.14
#define MAX_I 1000
...
double x, y;
int a, b, i;
```

indicate which of the following statements are valid, and find the value stored by each valid statement. Also indicate which are invalid and why. Assume that **a** is 3, **b** is 4, and **y** is  $-1.0$ .

Statement	Value <b>OR</b> invalid and why it is invalid
<code>i = a % b;</code>	
<code>x = a / b;</code>	
<code>x = PI / y;</code>	
<code>x = a % (a / b);</code>	
<code>i = (989 - MAX_I) / a;</code>	
<code>x = a * y / b / y;</code>	
<code>i = b % a;</code>	
<code>i = b / 0;</code>	
<code>x = a / y;</code>	
<code>i = -a / b;</code>	

3. (10 points)

A retail store would like to install a system that allows shoppers to check the cost of an item after taxes have been added. Below, write a complete program that will prompt the user to enter the cost of the item, scan the cost in, calculate the cost after tax using the equation

$$Price = Cost \times 0.065 ,$$

and output the cost of the item to the user.

**Answer Box:**