CSCI 152 Quiz 1 ( 25 Jan ) Name _____
Spring 2005

1. Circle the best answer:

a) if (8 < 2*3)
cout << “Hello”;
cout << “ There”;
Outputs the following:
(i) Hello There (ii) Hello (iii) There (iv) none of these

b) if (7 <= 7)
cout << 6-9*2/6;
Outputs the following:
(i) -1 (ii) 3 (iii) 3.0 (iv) none of these

c) if (5 < 3)
cout << “*”;
else
if (7 == 8)
cout <<”&”;
else
cout << “$”;
Outputs the following:
(i) * (ii) & (iii) $ (iv) none of these

2. Write C++ statements that accomplish the following:

a) Declares **int** variables ***x*** and ***y***.

```
int x;
int y;
```

```
int x, y;
```

b) Initializes an **int** variable ***x*** to 10 and a **char** variable ***ch*** to ‘B’.

```
x = 10;
ch = ‘B’;
```

c) Updates the value of an **int** variable ***x*** by adding 5 to it.

```
x = x + 5;
```

```
x += 5;
```

d) Sets the value of a **double** variable ***z*** to 25.3;

```
z = 25.3;
```

e) Copies the content of an **int** variable ***y*** into an **int** variable ***z***.

```
z = y;
```

f) Swaps the contents of the **int** variables ***x*** and ***y***. (Declare additional variables, if necessary).

```
int tmp;
tmp = y;
y = x;
x = tmp;
```

3. a) Convert the following for loop into an equivalent while loop:

```
for (int i=3; i<=6; i++)
{
   cout << i*i << " ";
}
cout << endl;
```

```
int i=3;
while (i <= 6)
{
  cout << i*i << " ";
  i++;
}
```

b) What is the output of the loop.

**9 16 25 36**

4. a) Write a value-returning function, ***isVowel***, that returns the **bool** value true if a character that is given as the functions parameter is a vowel (you need only check for the lower case vowels a, e, i, o, u or y) and otherwise returns false.

```
bool isVowel(char c)
{
    if ((c == 'a') || (c == 'e') || (c == 'i') || (c == 'o') || ( c == 'u'))
        return true;
    else
        return false ;
}
```

b) Declare a character variable named ***ch***. Ask a user to input a character value and read one in from standard input into the ***ch*** variables you declared.

```
char ch;
cout << "Enter a character: ";
cin >> ch;
```

c) Use your ***isVowel*** function to print out "You entered a vowel" if the ***ch*** that the user entered in (b) was a vowel, otherwise print out "You entered a consonant".

```
if (isVowel(ch))
     cout << "You entered a vowel" << endl;
else
     cout << "You entered a consonant" << endl;
```