



## COMPUTER ENGINEERING TECHNOLOGY DEPARTMENT

### C++ Programming Laboratory Exercise

Programmer :	_____	Instructor :	_____
Section :	_____	Date:	_____
Title :	Resistor Color Code	Score :	_____
	_____	Lab No. :	3
			_____

#### A. Problem Statement:

The provided C++ program is intended to decode the resistance value of a resistor based on its color bands. Your task is to complete the program so that it matches the expected output.

#### B. Program Requirements:

- [1] Define **enum** called **Color** that list all standard resistor color codes.
- [2] Use **cin** to take user input for each band color (as strings).
- [3] Use **cout** to display the decoded resistance value of each band color.
- [4] Use proper indentation and comments in your code.

#### C. Incomplete Program:

```
#include <iostream>

using namespace std;

int main()
{
    // variables
    enum Colors {
        black = 0,
        brown = 1,
        red = 2,
        orange = 3,
        yellow = 4,
        green = 5,
        blue = 6,
        violet = 7,
        gray = 8,
        white = 9
    }code;

    string color_1 = "";

    int value_1 = 0;

    // prompt user for color
    cin>>color_1;

    // decode 1st band
    if(color_1 == "black"){
        code = black;
    }
    else if(color_1 == "brown"){
        code = brown;
    }

    // display
    cout<<"\nThe 1st band value is "<<value_1;

    return 0;
}
```



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#### D. Expected Output:

Enter 1st band color: red

Enter 2nd band color: brown

Enter 3rd band color: blue

The 1st band value is 2

The 2nd band value is 1

The 3rd band value is 6

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Enter 1st band color: orange

Enter 2nd band color: black

Enter 3rd band color: white

The 1st band value is 3

The 2nd band value is 0

The 3rd band value is 9