

## Advanced Programming

### Quiz 5

Name:

Student ID:

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```
class String
{
private:
    char *s;
    int size;
public:
    String(const char *str = NULL); // constructor
    ~String() { delete [] s; } // destructor
    String(const String&); // copy constructor
    void print() { cout << s << endl; } // Function to print string
    void change(const char *); // Function to change the string
};

String::String(const char *str)
{
    Size = strlen(str);
    s = new char[size+1];
    strcpy(s, str);
}

void String::change(const char *str)
{
    delete [] s;

    size = strlen(str);
    s = new char[size+1];
    strcpy(s, str);
}

String::String(const String& old_str)
{
    If( old_str != *this )
    {
        size = old_str.size;

        s = new char[size+1];
        strcpy(s, old_str.s);
    }
}

void main()
{
    String str1("Sample");
```

```
String str2 = str1;
str1.print(); // what is printed ? Sample
str2.print(); Sample
str2.change("A new sample");
str1.print(); // what is printed now ? Sample
str2.print(); A new sample
}
```