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NPTEL » Programming in C++
                                                                                                            Ask a Question Progress
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                                                                                                                                      Mentor
Unit 5 - Week 3
                                Assignment 3
                                                                                                                   Due on 2020-10-07, 23:59 IST.
                                 The due date for submitting this assignment has passed.
                                 Assignment submitted on 2020-10-07, 00:10 IST
                                                                                                                                          2 points
                                     Consider the program below.
                                     #include <iostream>
                                     #include <string>
                                     using namespace std;
                                     class Sample {
                                         string name;
                                     public:
                                         Sample() {
                                             cout << "s" << " ";
                                         Sample(string s) : name(s) {
                                             cout << name << " ";
                                     };
                                     int main() {
                                         Sample s1; // LINE-1
                                         Sample *s2 = new Sample("s2");
                                         Sample *s3;
                                         new Sample("s4");
                                         return 0;
                                     What will be the output?
                                  a) compilation error: at LINE-1
                                  ○ b) s s2 s s4
                                  O c) s2 s s4
                                  (a) s s2 s4
                                 Yes, the answer is correct.
                                 Score: 2
                                 Accepted Answers:
                                 d) s s2 s4
                                                                                                                                          2 points
                                     Consider the program below.
                                     #include <iostream>
                                     using namespace std;
                                     int i = 0;
                                     class myClass {
                                     public:
                                         myClass() { i = 1; }
                                         ~myClass() { i = 5; }
                                     };
                                     void f() {
                                         myClass m;
                                     int fun() {
                                         i = 3;
                                         f();
                                         return i++;
                                     int main() {
                                         cout << fun() << " ";
                                         cout << i << endl;</pre>
                                         return 0;
                                     What will be the output?
                                  O a) 1 5
                                  O b) 3 4
                                  (a) 5 6
                                  Od) 3 5
                                 Yes, the answer is correct.
                                 Score: 2
                                 Accepted Answers:
                                 c) 5 6
                                 3) Consider the program below.
                                                                                                                                          2 points
                                    #include <iostream>
                                    using namespace std;
                                    class Data {
                                         int x;
                                         void fun1() {
                                          cout << "inside fun1";</pre>
                                    public:
                                         int y;
                                        void fun2() {
                                             cout << "inside fun2";</pre>
                                    };
                                    int main() {
                                         Data t;
                                        t.x = 5; // LINE-1
                                        t.fun1(); // LINE-2
                                        t.y = 8; // LINE-3
                                        t.fun2(); // LINE-4
                                         return 0;
                                    Which line/lines will give error?
                                  ☑ a) LINE-1
                                  ☑ b) LINE-2
                                  □ c) LINE-3
                                  □ d) LINE-4
                                 Yes, the answer is correct.
                                 Score: 2
                                 Accepted Answers:
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a) LINE-1
b) LINE-2
                                                                                                    2 points
  Consider the program below.
   #include<iostream>
   using namespace std;
   class MyClass {
   public:
       MyClass() { cout << "1"; }
       MyClass(const MyClass &t) { cout << "2"; }
  };
  int main() {
       MyClass *t1, *t2;
                                // LINE-1
       t1 = new MyClass();
                                // LINE-2
       t2 = new MyClass(*t1); // LINE-3
```

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What will be the output?
a) 111222
Ob) 1112
O c) 1212
(a) 1222
Yes, the answer is correct.
Score: 2
Accepted Answers:
d) 1222
    Consider the program below.
    #include <iostream>
    #include <cstring>
    using namespace std;
    class MyClass {
        char _____; // LINE-1: declare the data members
    public:
        MyClass(char* _fname, char* _mname, char* _lname) :
            fname(setFname(_fname)), mname(setMname(_mname)),
            lname(setLname(_lname)) { }
        char* setFname(char* fn) {
            cout << fn << " ";
            return strdup(fn);
        char* setMname(char* mn) {
```

2 points

2 points

2 points

// LINE-4

// LINE-5

MyClass t3 = *t1;

MyClass t4 = t3;

cout << mn << " ";

return strdup(mn);

char* setLname(char* ln) {

cout << ln << " ";

No, the answer is incorrect.

c) Test const* const this;

d) const Test* const this;

#include<iostream>

class Test {

int _x;

int _y;

using namespace std;

7) Consider the following program.

Test(int x, int y) {

return _d;

};

Accepted Answers:

Score: 0

return 0;

```
return strdup(ln);
    };
    int main() {
        MyClass obj("Ram", "Mohan", "Roy");
        return 0;
   Fill in the blank at LINE-1 such that the output is as follows:
   Roy Mohan Ram
 ○ a) *lname, *fname, *mname
 ○b) *mname, *lname, *fname
 c) *fname, *lname, *mname

    d) *lname, *mname, *fname

Yes, the answer is correct.
Score: 2
Accepted Answers:
d) *lname, *mname, *fname
6) Consider the code segment.
   class Test {
       // code...
   };
   int main() {
       const Test t; // LINE-1
       return 0;
   What is the type of this pointer associated with the object t?
 □ a) const Test* this;
 □ d) const Test* const this;
```

```
_x = x;
            _y = y;
           cout << _x << " " << _y;
   };
   int main() {
       Test t(5, 6);
       return 0;
   What will be the output / error?
 (a) 0 0
 O b) 5 6
 Oc) compilation error: no default constructor
 (a) compilation error: constructor is private
Yes, the answer is correct.
Score: 2
Accepted Answers:
d) compilation error: constructor is private
8) Consider the program below.
                                                                                                        2 points
    #include <iostream>
    #include <string>
    using namespace std;
    class Data {
        int _d;
    public:
       int set_d(int d) const {
            _d = d;
        int get_d() const {
```

```
int main() {
        Data obj;
        obj.set_d(5);
        cout << obj.get_d();</pre>
        return 0;
    What will be the output / error?
 O a) 0
 ○ b) 5
 © c) compiler error: assignment of data-member Data::_d is read-only object
 Od) compiler error: cannot have const function for non-const object
Yes, the answer is correct.
Score: 2
Accepted Answers:
c) compiler error: assignment of data-member Data::_d is read-only object
9) Consider the program below.
                                                                                                          2 points
    #include <iostream>
   using namespace std;
    class Point {
        int x, y;
    public:
        Point(int _x, int _y) : x(_x), y(_y) { }
        void changePoint(Point *new_pt) { this = new_pt; }
        void show() { cout << x << ", " << y << endl; }</pre>
   };
   int main() {
        Point p1(10, 20);
        Point p2(20, 50);
```

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p1.changePoint(&p2);
       p1.show();
       return 0;
   What will be the output / error?
 Oa) 10, 20
○ b) 20, 50
 (a) Compiler Error: lvalue required as left operand of assignment
 ○d) Compiler Error: private x, y are inaccessible
Yes, the answer is correct.
Score: 2
Accepted Answers:
c) Compiler Error: lvalue required as left operand of assignment
```