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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL)   »   **Programming In Modern C++ (course)**

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Course outline

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

🔵 Lecture 01 : Course Overview (unit? unit=22&lesson=23)

⚪ Lecture 02 : IO & Loop (unit? unit=22&lesson=24)

Week 1: Assignment 1

Assignment not submitted   **Due date: 2023-08-09, 23:59 IST.**

1) Consider the code segment given below.   **2 points**

```
#include <iostream>
#include<cmath>

int main(){
    int n = 4;
    ------------------------------;     //LINE-1
    return 0;
}
```

Fill in the blank at LINE-1 such that the output is 16 2.

a) std::cout << std::pow(n,2) << " " << std::sqrt(n)

b) cout << pow(n,2) << " " << sqrt(n)

c) std::cout << std::pow(n) << " " << std::sqrt(n)

d) cout << pow(n) << " " << sqrt(n)

⚪ a
🔵 b
⚪ c
⚪ d

2)   **2 points**

Consider the code segment given below.

```
#include <iostream>
#include<vector>
using namespace std;

int main(){
    _____ ;      //LINE-1
    arr.resize(10);
    for (int i=0;i<10;i++)
        arr[i] = i+1;
    return 0;
}
```

Fill in the blank at LINE-1 such that the program will run successfully.

a) vector<int> arr

b) vector<int> arr(3)

c) vector<int> arr[3]

d) int arr[3]

☑ a
☐ b
☐ c
☐ d

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3)   **2 points**

Consider the following code segment.

```cpp
#include <iostream>
#include<cstring>
using namespace std;

int main(){
    string s = "programming in modern C++";
    cout << s.size();                    //LINE-1
    cout << strlen(s);                   //LINE-2
    cout << s.length();                  //LINE-3
    cout << strlen(s.c_str());           //LINE-4
    return 0;
}
```

Which line/s will give compilation error/s?

a) LINE-1

b) LINE-2

c) LINE-3

d) LINE-4

☑ a
☐ b
☑ c
☐ d

4) Consider the code segment given below.   **2 points**

```
#include <iostream>
#include <algorithm>
using namespace std;
int main () {
      int data[] = {50, 30, 40, 10, 20};
      sort (&data[2], &data[5]);
      for (int i = 0; i < 5; i++)
            cout << data[i] << " ";
      return 0;
}
```

What will be the output?

a) 10 20 30 40 50

b) 10 30 40 50 20

c) 50 30 10 20 40

d) 50 10 20 30 40

○ a
○ b
◉ c
○ d

5)   **2 points**

Consider the code segment given below.

```
#include <iostream>
#include <string>
using namespace std;

int main(void) {
    string str1 = "Welcome ";
    string str2 = "students";
    _____;      //LINE-1
    cout << str1;
    return 0;
}
```

Choose the appropriate option to fill in the blank at LINE-1, such that the output of the code would be: Welcome students.

a) str1 += str2

b) strcat(str1, str2)

c) str1.append(str2)

d) str1.insert(str2)

☑ a

☐ b

☐ c

☐ d

6)   **2 points**

Consider the code segment given below.

```cpp
#include <iostream>
#include <cstring>
#include <stack>
using namespace std;

int main(){
    char str[10] = "COMPUTER";
    stack<char> s1, s2;
    int i;
    for(i = 0; i < strlen(str)/3; i++)
        s1.push(str[i]);
    for(; i < strlen(str); i++)
        s2.push(str[i]);

    while (!s1.empty()) {
        s2.push(s1.top()); s1.pop();
    }
    while (!s2.empty()) {
        cout << s2.top(); s2.pop();
    }
    return 0;
}
```

What will be the output?

a) COMPUTER

b) CORETUPM

c) UTERCOMP

d) COMPRETU

○ a
◉ b
○ c
○ d

7) Consider the code segment below.   **2 points**

```cpp
#include <iostream>
#include <algorithm>
using namespace std;

void modify(int *arr){
    rotate(arr, arr + 3, arr + 5);
    rotate(arr, arr + 2, arr + 4);
}

int main() {
    int iarr[5];
    for(int i = 0; i < 5; i++)
        *(iarr + i) = i * 2;

    modify(iarr);
    for (int i = 0; i < 5; ++i)
        cout << *(iarr + i) << " ";
    return 0;
}
```

What will be the output?

a) 0 2 4 6 8

b) 0 2 6 8 4

c) 6 8 0 2 4

d) 2 4 6 8 0

○ a
● b
○ c
○ d

8)
Consider the code segment given below.   **2 points**

```cpp
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int iarr[] = {10, 20, 50, 40, 10, 50};
    rotate(&iarr[0], &iarr[2], &iarr[6]);
    remove(&iarr[0], &iarr[6], 10);    //LINE-1
    for(int i = 0; i < 4; ++i)
        cout << iarr[i] << " ";
    return 0;
}
```

What will be the output?

a) 40 10 10 20

b) 50 40 50 20

c) 50 50 40 20

d) 40 10 40 20

○ a

◉ b

○ c

○ d

9)   **2 points**

Consider the code segment given below.

```
#include<iostream>
#include<algorithm>
#include<string.h>
using namespace std;

bool compare(char c1, char c2){
    return tolower(c1) > tolower(c2);      //LINE-1
}
int main(){
    char arr1[20] = "C++ Program", arr2[20] = "C Program";
    cout << lexicographical_compare(arr1, arr1+strlen(arr1), arr2, arr2+5,
                    compare);
    return 0;
}
```

What will be the output?

a) 1

b) 0

c) -1

d) Compilation Error: function is not defined

- ● a
- ○ b
- ○ c
- ○ d

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers