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



Register for Certification
exam

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Course outline

How does an NPTEL
online course work? ()

Week 0 ()

Week 1 ()

● Lecture 01 : Course
Overview (unit?)

Week 1 : Assignment 1

The due date for submitting this assignment has passed.

Due on 2023-02-08, 23:59 IST.

Assignment submitted on 2023-02-05, 21:32 IST

1)

2 points



unit=22&lesson=23)

- Lecture 02 : IO & Loop
(unit?unit=22&lesson=24)
 - Lecture 03 : Arrays and Strings (unit?
unit=22&lesson=25)
 - Lecture 04 : Sorting and Searching (unit?
unit=22&lesson=26)
 - Lecture 05 : Stack and Common Data Structures / Containers (unit?
unit=22&lesson=27)
 - Tutorial 01 : How to build a C/C++ program?: Part 1: C Preprocessor (CPP)
(unit?unit=22&lesson=28)
 - Week 1 Lecture Material
(unit?unit=22&lesson=29)
 - **Quiz: Week 1 : Assignment 1 (assessment? name=164)**
-
- W1_Programming_Qs_1
(/noc23_cs50/progassignment? name=165)
 - W1_Programming_Qs_2
(/noc23_cs50/progassignment? name=166)
 - W1_Programming_Qs_3
(/noc23_cs50/progassignment?

Consider the following program.

```
#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+strlen(arr2),
                                    compare);

    return 0;
}
```

What will be the output/error?

- a) 1
 - b) 0
 - c) -1
 - d) Compilation Error: function is not defined
- ☐ a
- ☒ b
- ☐ c
- ☐ d



name=167)

☒ Week 1 Feedback Form
(unit?unit=22&lesson=30)

☐ Assignment 1 Solution
(unit?unit=22&lesson=31)

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Download Videos ()

Books ()

Transcripts ()

Problem Solving
Session ()

No, the answer is incorrect.
Score: 0

Accepted Answers:

a

2) Consider the following code segment.

```
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int data[] = {1,2,3,4,5};
    int key = 5;
    if(binary_search(______)) //LINE-1
        cout << "found";
    else
        cout << "not found";
    return 0;
}
```

Fill in the blank at LINE-1 so that the program will print "not found"?

- a) &data[0], &data[5], key
- b) data, data+5, key
- c) &data[0], &data[4], key
- d) data+1, data+4, key

☒ a

☐ b

☒ c

☐ d

1 point



No, the answer is incorrect.

Score: 0

Accepted Answers:

c

d

3) Consider the following code segment.

2 points

```
#include <iostream>
#include <algorithm>
using namespace std;
int main () {
    int data[] = {50, 30, 40, 10, 20};
    sort (&data[1], &data[4]);
    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 10 30 40 20

d) 50 10 20 30 40

☐ a

☐ b

☒ c

☐ d



Yes, the answer is correct.

Score: 2

Accepted Answers:

c

4) Consider the following code segment.

2 points

```
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int element[5];
    for(int i = 1; i <= 5; i++)
        *(element + i - 1) = i * 5;
    rotate(element, element + 4, element + 5);
    rotate(element, element + 1, element + 4);
    for (int i = 0; i < 5; ++i)
        cout << element[i] << " ";
    return 0;
}
```

What will be the output?

a) 5 10 15 20 25

b) 5 10 15 25 20

c) 20 10 15 25 5

d) 25 5 10 15 20

☐ a

☒ b

☐ c



☐ d

Yes, the answer is correct.

Score: 2

Accepted Answers:

b

5) Consider the following code segment.

2 points

```
#include <iostream>
#include <vector>
using namespace std;
int main() {
    const int size = 3, c = 65;
    vector<char> vc(size, 'A');
    for (int i = 1; i <= 2; i++)
        vc.push_back(65 + i);
    vc.resize(10, 90);
    vc.resize(8);
    for (int i = 0; i < vc.size(); i++)
        cout << vc[i] << " ";
    return 0;
}
```

What will be the output?

- a) A A A B C Z Z Z
- b) A A B B C Z Z Z
- c) A A A B C Z Z
- d) A A A B C Z Z Z Z



- ☒ a
☐ b
☐ c
☐ d

Yes, the answer is correct.

Score: 2

Accepted Answers:

a

- 6) Consider the following code segment.

2 points

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

int main(void) {
    string s1 = "C++ ";
    string s2 = "Program";
    -----;    //LINE-1
    cout << s1;
    return 0;
}
```

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

- a) `s1 += s2`
b) `strcat(s1, s2)`
c) `s1.append(s2)`
d) `s1.insert(s2)`





a



b



c



d

Yes, the answer is correct.

Score: 2

Accepted Answers:

a

c



7) Consider the following code segment.

2 points

```
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int data[] = { 1, 2, 3, 4, 5 };
    for (int i = 0; i < 5; i++) {
        int j = data[i];
        replace(data, data + 5, j, *(_____)); //LINE-1
    }
    for (int i = 0; i < 5; ++i)
        cout << data[i] << " ";
    return 0;
}
```

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

5 2 3 4 5

- a) $\text{data} + 4 - i$
- b) $\text{data} + 5 - i$
- c) $\text{data} + i - 4$
- d) $\text{data} + i - 5$

- ☒ a
- ☐ b
- ☐ c
- ☐ d



Yes, the answer is correct.

Score: 2

Accepted Answers:

a



8) Consider the following code segment.

2 points

```
#include <iostream>
#include <cstring>
#include <stack>

using namespace std;

int main(){
    char str[10] = "123456789";
    stack<char> s1, s2;
    int i;
    for(i = 0; i < strlen(str)/2; i++)
        s1.push(str[i]);
    for(i=i-1; 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) 1234987654

b) 123498765

c) 1234987654



- ☐ a) 123456789
- ☐ b) 123459876
- ☐ c
- ☒ d

No, the answer is incorrect.
Score: 0

Accepted Answers:

a

- 9) Consider the following code segment.

2 points

```
int i = 5;
const int *p = &i;
int * const q = &i;
int const *r = &i;
int const * const s = &i;
```

```
*p = 10; //STMT-1
*q = 10; //STMT-2
*r = 10; //STMT-3
*s = 10; //STMT-4
```

Which statement/statements is/are correct?

- a) STMT-1
- b) STMT-2
- c) STMT-3
- d) STMT-4

☐ a



☐ b☒ c☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

