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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Problem Solving Through Programming In C (course)



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Course outline

How does an
NPTEL
online
course
work? ()

Week 0 : ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 : Assignment 6

Your last recorded submission was on 2023-09-03, 19:58 Due date: 2023-09-06, 23:59 IST.

- 1) What is an array in C? **1 point**
- ☒ a) A collection of similar data elements with the same data type.
 - ☐ b) A built-in function that performs mathematical calculations.
 - ☐ c) A keyword used for declaring variables.
 - ☐ d) A data type used to store characters only.
- 2) What is the index of the first element in an array? **1 point**
- ☒ a) 0
 - ☐ b) 1
 - ☐ c) -1
 - ☐ d) The index can vary depending on the array size.
- 3) Which loop is commonly used to iterate through all elements of an array in C? **1 point**
- ☒ a) for loop
 - ☐ b) while loop
 - ☐ c) do-while loop
 - ☐ d) switch loop
- 4) An integer array of 15 elements is declared in a C program. The memory location of the first byte of the array is 2000. What will be the location of the 13th element of the array? Assume int takes 2 bytes of memory. **1 point**
- ☐ a) 2013



Week 6 ()

● Lecture 26:
Introduction to
Arrays (unit?
unit=61&lesso
n=62)

● Lecture 27:
Arrays
(Contd.) (unit?
unit=61&lesso
n=63)

● Lecture 28:
Arrays
(Contd.) (unit?
unit=61&lesso
n=64)

● Lecture 29:
Program using
Arrays (unit?
unit=61&lesso
n=65)

○ Lecture 30:
Array Problem
(unit?
unit=61&lesso
n=66)

● **Quiz: Week 6
: Assignment
6
(assessment?
name=242)**

● Week 6 :
Programming
Assignment 1
(/noc23_cs121
/progassignme
nt?name=243)

● Week 6 :
Programming
Assignment 2
(/noc23_cs121
/progassignme
nt?name=244)

● Week 6 :
Programming
Assignment 3
(/noc23_cs121
/progassignme
nt?name=245)

- ☒ b) 2024
☐ c) 2026
☐ d) 2030

5)

1 point

How can you find the sum of all elements in a 1D array "arr" with 5 elements using loop in C?

- a) `sum = arr[0] + arr[1] + arr[2] + arr[3] + arr[4];`
b) `sum = arr[5];`
c) `for (int i = 0; i <= 5; i++) { sum += arr[i]; }`
d) `for (int i = 0; i < 5; i++) { sum += arr[i]; }`

- ☐ Option (a)
☐ Option (b)
☐ Option (c)
☒ Option (d)

6)

1 point

What is the output of the following code?

```
#include <stdio.h>
int main()
{
    int arr[] = {1, 2, 3, 4, 5};
    int i = 0;
    while (i < 5) {
        printf("%d ", arr[i]);
        i += 2;
    }
    return 0;
}
```

- ☒ a) 1 3 5
☐ b) 1 2 3 4 5
☐ c) 1 2 3
☐ d) 1 4



● Week 6 :
Programming
Assignment 4
(/noc23_cs121
/progassignment?
name=246)

○ Feedback
Form of Week
6 (unit?
unit=61&lesso
n=247)

Week 7 ()

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7)

What will be the output?

```
#include <stdio.h>
int main()
{
    int arr[]={1,2,3,4,5,6};
    int i,j,k;
    j=++arr[2];
    k=arr[1]++;
    i=arr[j++];
    printf("i=%d, j=%d, k=%d", i, j, k);
    return 0;
}
```

- ☐ a) i=5, j=5, k=2
☐ b) i=6, j=5, k=3
☐ c) i=6, j=4, k=2
☒ d) i=5, j=4, k=2

1 point

8)

What will be the output after execution of the program?

```
#include <stdio.h>
int main()
{
    int i, a[4]={3,1,2,4}, result;
    result=a[0];
    for(i=1; i<4; i++)
    {
        if(result>a[i])
            continue;
        result=a[i];
    }
    printf("%d", result);
    return 0;
}
```

- ☒ a) 1
☐ b) 2
☐ c) 3
☐ d) 4

1 point



9)

What will be the output?

```
#include<stdio.h>
int main()
{
    int n = 2;
    int sum = 5;
    switch(n)
    {
        case 2: sum = sum-3;
        case 3: sum*=4;
        break;
        default:
            sum =0;
    }
    printf("%d", sum);
    return 0;
}
```

Hint**1 point**

10)

Find the output of the following C program

```
#include<stdio.h>
int main()
{
    int a;
    int arr[5] = {1, 2, 3, 4, 5};
    arr[1] = ++arr[1];
    a = arr[1]++;
    arr[1] = arr[a++];
    printf("%d, %d", a, arr[1]);
    return 0;
}
```

- ☐ a) 5, 4
- ☐ b) 5, 5
- ☒ c) 4, 4
- ☐ d) 3, 4

1 point

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

Submit Answers

