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

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Week 6 : Assignment 6

Your last recorded submission was on 2023-08-30, 20:51 Due date: 2023-09-06, 23:59 IST. 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 **1 point** 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.

- ○ a) 2013

◉ 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

7)   *1 point*

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

8)   *1 point*

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

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;
}

8

Hint

1 point

10)   *1 point*

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

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

Submit Answers