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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 ()**

☐ Lecture 16: IF-  
ELSE  
Statement

# Week 4 : Assignment 4

The due date for submitting this assignment has passed.

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

**Assignment submitted on 2023-08-23, 21:52 IST**

1) What is the purpose of the "if-else" statement in C?

**1 point**

- ☐ a) To execute a block of code repeatedly.
- ☐ b) To declare variables and constants.
- ☒ c) To test a condition and execute different code based on the result.
- ☐ d) To perform mathematical calculations.

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) *To test a condition and execute different code based on the result.*

2) What is the correct syntax for an "if-else" statement in C?

**1 point**

- ☐ a) if condition { statement1; statement2; } else { statement3; }
- ☐ b) if condition then { statement1; } else { statement2; }
- ☒ c) if (condition) { statement1; } else { statement2; }
- ☐ d) if condition then statement1; else statement2;

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) *if (condition) { statement1; } else { statement2; }*

3) Which of the following is true about nested "if-else" statements?

**1 point**

(Contd.) (unit?  
unit=44&lesso  
n=45)

☐ Lecture 17:  
Switch  
statement  
(unit?  
unit=44&lesso  
n=46)

☐ Lecture 18:  
Switch  
Statement  
(Contd.) and  
Introduction  
to Loops  
(unit?  
unit=44&lesso  
n=47)

☐ Lecture 19:  
Implementing  
Repetitions  
(Loops) (unit?  
unit=44&lesso  
n=48)

☐ Lecture 20:  
Implementati  
on of Loops  
with for  
Statement  
(Contd.) (unit?  
unit=44&lesso  
n=49)

☒ **Quiz: Week 4  
: Assignment  
4  
(assessment?  
name=230)**

☒ Week 4 :  
Programming  
Assignment 1  
(/noc23\_cs121  
/progassignm  
ent?  
name=231)

☒ Week 4 :  
Programming  
Assignment 2  
(/noc23\_cs121  
/progassignm  
ent?  
name=232)

- ☐ a) They are not allowed in C.
- ☐ b) The "else" part is mandatory for every "if" statement.
- ☒ c) They allow you to test multiple conditions and execute different blocks of code based on the results.
- ☐ d) Nested "if-else" statements are only allowed up to two levels deep.

Yes, the answer is correct.

Score: 1

Accepted Answers:

*c) They allow you to test multiple conditions and execute different blocks of code based on the results.*

4) What happens if there is no "else" part in an "if-else" statement? **1 point**

- ☐ a) The program will not compile.
- ☐ b) The program will crash at runtime.
- ☐ c) If the condition is true, nothing happens; if the condition is false, the program crashes.
- ☒ d) If the condition is true, the program executes the code inside the "if" block; if the condition is false, nothing happens.

Yes, the answer is correct.

Score: 1

Accepted Answers:

*d) If the condition is true, the program executes the code inside the "if" block; if the condition is false, nothing happens.*

5) Which of the following operators can be used to combine multiple conditions in an "if" statement? **1 point**

- ☐ a) && (logical AND)
- ☐ b) || (logical OR)
- ☐ c) ! (logical NOT)
- ☒ d) All of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

*d) All of the above*

6) Compute the printed value of i of the C program given below **1 point**

```
#include<stdio.h>
int main()
{
    int i=2;
    i=i++;
    printf("%d", i);
    return 0;
}
```

- ☒ a) 2
- ☐ b) 3

● Week 4 :  
Programming  
Assignment 3  
(/noc23\_cs121  
/progassignment?  
name=233)

● Week 4 :  
Programming  
Assignment 4  
(/noc23\_cs121  
/progassignment?  
name=234)

○ Feedback  
Form of Week  
4 (unit?  
unit=44&less  
n=235)

○ Assignment 4  
Solution (unit?  
unit=44&less  
n=51)

**Week 5 ()**

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

**Week 10 ()**

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○ c) 4

○ d) Compiler error

Yes, the answer is correct.

Score: 1

Accepted Answers:

a) 2

7) If multiple conditions are used in a single "if" statement then the testing of those conditions are done

**1 point**

○ a) From Right to Left

● b) From Left to right

○ c) Randomly

○ d) None of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

b) From Left to right

8)

**1 point**

What is the purpose of the given program? n is the input number given by the user.

```
#include <stdio.h>
int main()
{
    int n, x = 0, y;
    printf("Enter an integer: ");
    scanf("%d", &n);
    while (n != 0)
    {
        y = n % 10;
        x = x - y;
        n = n/10;
    }
    printf("Output is = %d", x);
    return 0;
}
```

○ a) Sum of the digits of a number

● b) The negative sum of the digits of a number

○ c) The reverse of a number

○ d) The same number is printed

Yes, the answer is correct.

Score: 1

Accepted Answers:

b) The negative sum of the digits of a number

9)

**1 point**

What will be the value of a, b, c after the execution of the followings

```
int a=5, b=7, c=111;  
c /= ++a * b--;
```

- ☐ a) a=5, b=6, c=2;
- ☐ b) a=6, b=7, c=1;
- ☒ c) a=6, b=6, c=2;
- ☐ d) a=5, b=7, c=1;

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) a=6, b=6, c=2;

10) What will be the output of the following program?

1 point

```
#include <stdio.h>  
int main()  
{  
    int x = 1;  
    switch (x)  
    {  
        case 1: printf("Choice is 1 \n");  
        default: printf("Choice other than 1 \n");  
    }  
    return 0;  
}
```

- ☐ a) Choice is 1
- ☐ b) Choice other than 1
- ☒ c) Both (a) and (b)
- ☐ d) Syntax error

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) Both (a) and (b)