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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 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, 20:00 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?

○ 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   *1 point*
"if" statement?

○ a)   && (logical AND)

○ b) || (logical OR)

○ c)   ! (logical NOT)

◉ d)   All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a)   && (logical AND)

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

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

◉ a) 2

○ b) 3

○ 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   ***1 point***
conditions are done

○ 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.

```c
#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)

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)