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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 5 : Assignment 5

The due date for submitting this assignment has passed.

Due on 2023-08-30, 23:59 IST.

Assignment submitted on 2023-08-27, 23:47 IST

1) The statement that transfers control to the beginning of the loop is called **1 point**

- ☐ a) break  
☒ b) continue  
☐ c) goto  
☐ d) None of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

b) *continue*

2) In C three way transfer of control is possible using **1 point**

- ☐ a) Unary operator  
☐ b) Logical operator  
☒ c) Ternary operator  
☐ d) None

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) *Ternary operator*

- ☐ Lecture 21:  
For Statement  
(Contd.) (unit?  
unit=52&lesso  
n=53)
- ☐ Lecture 22:  
Example of If-  
Else (unit?  
unit=52&lesso  
n=54)
- ☐ Lecture 23 :  
Example of  
Loops (unit?  
unit=52&lesso  
n=55)
- ☐ Lecture 24 :  
Example of  
Loops (Contd.)  
(unit?  
unit=52&lesso  
n=56)
- ☐ Lecture 25 :  
Example of  
Loops  
(Contd.), Use  
of FOR Loops  
(unit?  
unit=52&lesso  
n=57)

**Quiz: Week 5  
: Assignment  
5  
(assessment?  
name=236)**

**Week 5 :**  
Programming  
Assignment 1  
(/noc23\_cs121  
/progassignme  
nt?name=237)

**Week 5 :**  
Programming  
Assignment 2  
(/noc23\_cs121  
/progassignme  
nt?name=238)

**Week 5 :**  
Programming  
Assignment 3  
(/noc23\_cs121

3) What is the output of the following code?

```
#include <stdio.h>
int main()
{
    int i=0;
    do
    {
        printf("while vs do-while\n");
    }while(i==0);
    printf("Out of loop");
    return 0;
}
```

- ☐ a) 'while vs do-while' once
- ☐ b) 'Out of loop' infinite times
- ☐ c) Both 'while vs do-while' and 'Out of loop' once
- ☒ d) 'while vs do-while' infinite times

Yes, the answer is correct.

Score: 1

Accepted Answers:

d) 'while vs do-while' infinite times

4) What is the output of the following C program?

```
#include <stdio.h>
int main()
{
    int a = 0, i;
    for (i = 0; i < 5; i+=0.5)
    {
        a++;
        continue;
    }
    printf("%d", a);
    return 0;
}
```

- ☐ a) 5
- ☐ b) 10
- ☒ c) No output
- ☐ d) Compilation error

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) No output

1 point

1 point

/progassignment?name=239)

☒ Week 5 :  
Programming  
Assignment 4  
(/noc23\_cs121  
/progassignment?name=240)

☐ Feedback  
Form of Week  
5 (unit?  
unit=52&lesson=241)

☐ Assignment 5  
Solution (unit?  
unit=52&lesson=60)

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

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Solving  
Session -  
July 2023 ()**

5) What is the output of the following C code?

```
#include <stdio.h>
int main()
{
    int a = 1;
    if (a--)
        printf("True\n");
    if (++a)
        printf("False\n");
    return 0;
}
```

- ☐ a) True  
☐ b) False  
☒ c) Both 'True' and 'False'  
☐ d) Compilation error

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
c) Both 'True' and 'False'

6) What will be the output?

```
#include <stdio.h>
int main()
{
    int x=1;
    do
    {
        continue;
        printf("%d", x);
        x++;
        break;
    }while(x<=10);
    printf("\nAfter loop x=%d", x);
    printf("\n");
    return 0;
}
```

- ☐ a) After loop x=1  
☐ b) 1  
 After loop x=2  
☐ c) 1 2 3 4 5 6 7 8 9 10  
☒ d) No output

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
d) No output

**1 point**

**1 point**

7)

1 point

What will be the output?

```
#include <stdio.h>
int main()
{
    float k = 0;
    for (k = 0.5; k < 3; k++)
        printf("I love C\n");
    return 0;
}
```

- ☐ a) Error
- ☒ b) I love C - will be printed 3 times
- ☐ c) I love C - will be printed 6 times
- ☐ d) I love C - will be printed 5 times

Yes, the answer is correct.

Score: 1

Accepted Answers:

*b) I love C - will be printed 3 times*

8)

1 point

What will be the output?

```
#include <stdio.h>
int main()
{
    int x;
    x = 4 < 8 ? 5 != 1 < 5 == 0 ? 1 : 2 : 3;
    printf("%d", x);
    return 0;
}
```

- ☐ a) 1
- ☒ b) 2
- ☐ c) 3
- ☐ d) Error

Yes, the answer is correct.

Score: 1

Accepted Answers:

*b) 2*

9)

1 point

The following program is used to find the reverse of a number using C language. Find the missing condition inside while statement (indicated as 'xxxx').

```
#include <stdio.h>
int main()
{
    int n, reversedNumber = 0, remainder;

    printf("Enter an integer: ");
    scanf("%d", &n);

    while(xxxx)
    {
        remainder = n%10;
        reversedNumber = reversedNumber*10 + remainder;
        n /= 10;
    }

    printf("Reversed Number = %d", reversedNumber);

    return 0;
}
```

- ☒ a) n!=0
- ☐ b) n==0
- ☐ c) n%10==0
- ☐ d) n/10==0

Yes, the answer is correct.

Score: 1

Accepted Answers:

a) n!=0

10)

1 point

Compute the printed value of i & j of the C program given below

```
#include <stdio.h>
int main()
{
    int i = 0, j = 15;
    while (i<8, j >9)
    {
        i++;
        j--;
    }
    printf("%d, %d\n", i, j);
    return 0;
}
```

- ☐ a) 8,10
- ☐ b) 8,9
- ☒ c) 6, 9
- ☐ d) 7, 10

Yes, the answer is correct.

Score: 1

Accepted Answers:

c) 6, 9