R VRSHA SOLACHI

NPTEL ASSIGNMENT -

Problem Solving Through Programming In C

WEEK 3 – MCQ QUIZ

Week 3 : Assignment 3

The due date for submitting this assignment has passed.

Due on 2023-08-16, 23:59 IST.

Assignment submitted on 2023-08-16, 22:11 IST

1) Which of the following statement is correct? *1 point*

- (•) a) Operator precedence determines which operator is performed first in an expression with more than one operator with different precedence. Associativity is used when two operators of same precedence appear in an expression
- ( ) b) Operator associativity determines which operator is performed first in an expression with more than one operator with different associativity. Precedence is used when two operators of same precedence appear in an expression
- ( ) c) Operator precedence and associativity are same.
- ( ) d) None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
a) Operator precedence determines which operator is performed first in an expression with more than one operator with different precedence. Associativity is used when two operators of same precedence appear in an expression

2) *1 point*

Find the output of the following C code

```
#include<stdio.h>
int main()
{
  int a=50, b=20, c=6, d=3, result;
  result=a+a*-b/c%d+c*d;
  printf("%d", result);
  return 0;
}
```

- (•) a) 67
- ( ) b) -36
- ( ) c) 66
- ( ) d) -37

Yes, the answer is correct.
Score: 1
Accepted Answers:
a) 67

3) *1 point*

What is the output of the following C code?

```
#include <stdio.h>
int main()
{
int h = 8;
int b = 4 * 6 + 3 * 4 < h*5 ?4 : 3;
printf("%d\n", b);
return 0;
}
```

- ( ) a) 0
- ( ) b) 3
- (•) c) 4

c) 4

d) Compilation error

Yes, the answer is correct.
Score: 1

Accepted Answers:
c) 4

4) *1 point*

Find the output of the following C code

```
#include <stdio.h>
int main()
{
int x=1;
   if ((3>5) || (2!=3))
         printf("IITKGP\n");
   else if (x&=0)
         printf("IITD\n");
   else
         printf("IITM\n");
return 0;
}
```

a) IITKGP

b) IITD and IITM

c) IITKGP and IITM

d) IITM

Yes, the answer is correct.
Score: 1

Accepted Answers:
a) IITKGP

5) *1 point*

What will be the output?

```
#include <stdio.h>
int main()
{
if ((-10 && 10) || (20 && -20))
         printf("Condition is true.");
else
         printf("Condition is false.");
 return 0;
}
```

a) Condition is true

b) Condition is false

c) Error

d) No output possible

Yes, the answer is correct.
Score: 1

Accepted Answers:
a) Condition is true

6) What is the output of the following program? *1 point*

```
#include<stdio.h>
int main()
{
int i;
   if(i=0,2,3)
        printf("NPTEL ");
   else
        printf("Programming on C ");
printf("%d\n", i);
return 0;
}
```

- a) Programming on C 0
- b) NPTEL 0
- c) NPTEL 3
- d) Compilation error

Yes, the answer is correct.
Score: 1
Accepted Answers:
b) NPTEL 0

7) What is the output of the C program given below *1 point*

```
#include <stdio.h>
int main()
{
int x = 0;
      if (x++)
printf("true\n");
   else if (x == 1)
printf("false\n");
return 0;
}
```

- a) true
- b) false
- c) Compiler dependent
- d) Compiler error

Yes, the answer is correct.
Score: 1
Accepted Answers:
b) false

8) What will be the output? *1 point*

```
#include<stdio.h>
int main()
{
 int x;
 x= 10==20!=30;
```

```
return 0;
}
```

- a) 0
- b) 1
- c) 10
- d) 30

Yes, the answer is correct.
Score: 1
Accepted Answers:
b) 1

9) *1 point*

What will be the output?

```
#include <stdio.h>
int main()
{
int a = 100, b = 200, c = 300;
   if (c > b > a)
printf("TRUE");
   else
printf("FALSE");
return 0;
}
```

- a) TRUE
- b) FALSE
- c) Syntax Error
- d) Compilation Error

Yes, the answer is correct.
Score: 1
Accepted Answers:
b) FALSE

10) *1 point*

What is the output of the following C code?

```
#include <stdio.h>
int main()
{
  int y = 10;
  int z = y +(y == 10);
  printf("%d\n", z);
  return 0;
}
```

- a) 10
- b) 11
- c) 20
- d) Compiler error

Yes, the answer is correct.
Score: 1
Accepted Answers:
b) 11

WEEK 3 – PROGRAMMING ASSIGNMENT

Week 3 : Programming Assignment 1

Due on 2023-08-17, 23:59 IST

Write a C Program to calculates the area (floating point number with two decimal places) of a Circle given it's radius (integer value). The value of Pi is 3.14.
[Marks for Week 3 Programming assignments will not be evaluated finally. This is for users to get familiar with programming in google course builder platform]

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	50	Area of a circle = 7850.00	Area of a circle = 7850.00	Passed
Test Case 2	7	Area of a circle = 153.86	Area of a circle = 153.86	Passed

The due date for submitting this assignment has passed.
2 out of 2 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-08-17, 19:37 IST
Your last recorded submission was :

```c
#include <stdio.h>
#define PI 3.14
void main()
{
    int radius;
    float area;
    /* Enter the radius of a circle */
    scanf("%d", &radius);

/*Here the first part and the last part of the program is already written.
You have to write only the middle portion by carefully considering the
variables used. You can use more variables if required but no other input and output
statements can be used as the test input and corresponding output is already provided.
There are two public test cases which you can see and check whether your program is correct.
There is also one or two private test cases, the result of which you cannot
see and which are used for evaluation purpose*/
/*For example in this program the middle part can be written as:
area = PI * radius * radius;
in the space provided */
area = PI * radius * radius;
printf("Area of a circle = %5.2f", area);
}
```

Week 3 : Programming Assignment 2

Due on 2023-08-17, 23:59 IST

Write a C program to check if a given Number is zero or Positive or Negative Using if...else statement.
[Week 3 programming assignments will not be considered for final evaluation]

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	6.45	Positive number.	Positive number.	Passed
Test Case 2	0	The number is 0.	The number is 0.	Passed

The due date for submitting this assignment has passed.
2 out of 2 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-08-17, 19:42 IST
Your last recorded submission was :

```c
#include <stdio.h>
int main()
{
    double number;
    scanf("%lf", &number);

    /* The number is entered automatically from the test cases and executed */
    /* Write the rest of the code in the box below
    As the output should exactly match with the output mentioned in the test cases
    so copy and paste the following printf statements wherever and whichever is applicable
      printf("The number is 0.");
      printf("Negative number.");
      printf("Positive number.");
    Do not use any other scanf statements */
if(number>0){
printf("Positive number.");
}
else if (number<0){
  printf("Negative number.");
}

else{
  printf("The number is 0.");
}

return 0;
}
```

Week 3 : Programming Assignment 3

Due on 2023-08-17, 23:59 IST

Write a C program to check whether a given number (integer) is Even or Odd.
[This program does not carry any marks.]

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	116	116 is even.	116 is even.	Passed
Test Case 2	-25	-25 is odd.	-25 is odd.	Passed

The due date for submitting this assignment has passed.
2 out of 2 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-08-17, 19:44 IST
Your last recorded submission was :

```c
#include <stdio.h>
int main()
{
    int number;
    scanf("%d", &number); /*An integer number is taken from the test case */

/* Write the rest of the program in the box provided below. As the output
should exactly match with the output provided in the test cases so use exactly the
following printf statement wherever and whichever is applicable.

printf("%d is even.", number);
printf("%d is odd.", number);

*/
if(number%2==0)
{
  printf("%d is even.", number);
}
else{
   printf("%d is odd.", number);
}
return 0;
}
```

Week 3 : Programming Assignment 4

Due on 2023-08-17, 23:59 IST

Write a C Program to find the Largest Number (integer) among Three Numbers (integers) using IF and Logical && operator.
[Week 3 programming assignments will not be considered for final evaluation]

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	-9 -4 -20	-4 is the largest number.	-4 is the largest number.	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-08-17, 19:46 IST
Your last recorded submission was :

```c
#include <stdio.h>
int main()
{
    int n1, n2, n3;

    scanf("%d %d %d", &n1, &n2, &n3); /*Three numbers are accepted from the test case */

/*  Complete the code in the box provided below. Use printf statement as provided below:
printf("%d is the largest number.", n1);
It may be n1, n2 or n3.
*/
if(n1>n2 && n1>n3){
    printf("%d is the largest number.", n1);
}
else if(n2>n1 && n2>n1){
    printf("%d is the largest number.", n2);
}
else{
    printf("%d is the largest number.", n3);
}
return 0;
}
```