**Netaji Subhash Engineering College**

**Department of Computer Science & Engineering**

**B. Tech CSE 2nd Year 3rd Semester**

**2021-2022**

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**Name of the Course: IT Workshop**

**Course Code: PCC-CS393**

**Name of the Student: Sanjoy Saha**

**Class Roll No.: 3**

**University Roll No.: 10900120003**

**Date of Experiment: 1/10/2021**

**Date of Submission: 5/10/2021**

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* **Assignment No.: 1**

**Problem Statement:** Write a program to convert temperature from degree Celsius to degree Fahrenheit.

**Python Code:**

celsius = float(input('Enter temperature in Celsius: '))

fahrenheit = (celsius \* 1.8) + 32

print('%0.1f Celsius is equal to %0.1f degree Fahrenheit'%(celsius,fahrenheit))

**Sample Output(s):**

**A screenshot of a computer

Description automatically generated**

* **Assignment No.: 2**

**Problem Statement:**  Write a program to calculate the area and perimeter of a rectangle.

**Python Code:**

length = float(input("Enter length of rectangle: "))

breadth = float(input("Enter breadth of rectangle: "))

area = length\*breadth

perimeter = 2\*(length \* breadth)

print("Area of rectangle = ", area)

print("Perimeter of rectangle = ", perimeter)

**Sample Output(s):**

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* **Assignment No.: 3**

**Problem Statement:** Write a program to swap the value of two variables using a third variable.

**Python Code:**

x = int(input("Enter the value of x"))

y = int(input("Enter the value of y"))

print("Before swapping numbers: %d   %d\n" %(x,y))

temp = x

x = y

y = temp

print("Value of x:", x)

print("Value of y:", y)

**Sample Output(s):**

**A screenshot of a computer

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* **Assignment No.: 3**

**Problem Statement:** Write a program to swap the value of two variables without using a third variable.

**Python Code:**

x = int(input("Enter the value of x"))

y = int(input("Enter the value of y"))

print("before swapping numbers: %d   %d\n" %(x,y))

x = x + y

y = x - y

x = x - y

print("After swapping: %d   %d\n"%(x,y))

**Output –**

**A screenshot of a computer

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* **Assignment No.: 4**

**Problem Statement:** Write a program to swap two numbers using bitwise operators.

**Python Code:**

a = int(input("Enter the first number: "))

b = int(input("Enter the second number: "))

a = a ^ b

b = a ^ b

a = a ^ b

print("Swapped value of x is %d & y is %d" %(a,b))

**Sample Output(s):**

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* **Assignment No.: 5**

**Problem Statement:** Write a program to rotate the value of x, y, z such that x has the value of y, y has the value of z and z has the value of x.

**Python Code:**

x,y,z=float(input()),float(input()),float(input())

print('x = ',x,' | y =',y,' | z =',z)

(x, y, z)=(y,z,x)

print('x = ',x,' | y =',y,' | z =',z)

**Sample Output(s):**

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* **Assignment No.: 6**

**Problem Statement:** Write a program to display the following numbers: 5678, 678, 78, 8, where the given number is 5678.

**Python Code:**

n = float(5678)

n=int(n-int((n/10000))\*10000)

print(n)

n=int(n-int((n/1000))\*1000)

print(n)

n=int(n-int((n/100))\*100)

print(n)

n=int(n-int((n/10))\*10)

print(n)

**Sample Output(s):**

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* **Assignment No.: 7**

**Problem Statement:** Write a program to add two complex numbers by reading the numbers from the user.

**Python Code:**

print("Format for writing complex number: a+bj.\n")

c1 = complex(input("Enter First Complex Number: "))

c2 = complex(input("Enter second Complex Number: "))

print("Sum of both the Complex number is", c1 + c2)

**Sample Output(s):**

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* **Assignment No.: 8**

**Problem Statement:** Write a program to accept the principal amount, rate of interest, and duration from the user, hence, to display interest amount and the total amount (principal +interest).

**Python Code:**

p = float(input("Enter principal: "))

r = float(input("Enter rate: "))

t = float(input("Enter time: "))

si = p \* r \* t / 100

print("Simple Interest =", si)

**Sample Output(s):**

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