WEEK-3:

Course Name: PSP LAB **Section: CSE5**

Date of Execution:08-12-2022

1. **program to demonstrate escape sequences in python**
2. **program to demonstrate built in format() function in python**
3. **program to display data of different types using variables and literal constants**

```
num = 7
amt = 123.45
code = 'A'
pi = 3.1415926536
population_of_India = 10000000000
msg = "Hi"

print("NUM = "+str(num))
print("\n AMT = "+ str(amt))
print("\n CODE = " + str(code))
print("\n POPULATION OF INDIA = " + str(population_of_India))
print("\n MESSAGE = "+str(msg))
```

OUTPUT

```
NUM = 7
AMT = 123.45
CODE = A
POPULATION OF INDIA = 10000000000
MESSAGE = Hi
```

4. **Program to reassign the values of a variable**

```
val = 'Hello '
print(val)
val = 100
print(val)
val = 12.34
print(val)
```

OUTPUT

```
Hello
100
12.34
```

5. **Program to assign and access the variables**

```
>>> str = "Hello"
>>> num = 10
>>> print(str)
Hello
>>> print(num)
10
>>> print(age)
Traceback (most recent call last):
  File "<pyshell#4>", line 1, in
<module>
    print(age)
NameError: name 'age' is not defined
```

Case 1: variable not declared prior to its use

```
>>> str = "Hello"
>>> num = 10
>>> age = 20
>>> print(str)
Hello
>>> print(num)
10
>>> print(age)
20
>>> del num
>>> print(num)
Traceback (most recent call last):
  File "<pyshell#13>", line 1, in
<module>
  print(num)
NameError: name 'num' is not defined
```

Case 2: variable being used after deleting it

6. **Program to read variables from user**

```
name = input("What's your name?")
age = input("Enter your age : ")
print(name + ", you are " + age + " years old")
```

7. **Program to read and print values of variables of different data types**

```
num = int(input("Enter the value of num : "))
amt = float(input("Enter the value of amt : "))
pi = float(input("Enter the value of pi : "))
code = str(input("Enter the value of code : "))
population_of_India = int(input("Enter the value of population of India : "))
msg = str(input("Enter the value of message : "))
#Print the values of variables
print("NUM = " + str(num) + "\n AMT = " + str(amt) + "\n CODE = " + str(code) + "\n
POPULATION OFINDIA = " + str(population_of_India) + "\n MESSAGE = " + str(msg))
```

OUTPUT

```
Enter the value of num : 55
Enter the value of amt : 879.97
Enter the value of pi : 3.14
Enter the value of code : G
Enter the value of population of India : 7895400000
```

8. **Write a program to perform addition , subtraction, multiplication, division, integer division and modulo division on two integer numbers.**
9. **Write a program to perform addition , subtraction, division, and multiplication, on two floating point numbers**
10. **Write a Python program to calculate area and perimeter of a rectangle.**
11. **Write a program to print the digit at one's place of a number**
12. **Write a program to print the average of two numbers**
13. **Write a Python program to calculate the angle of a triangle if two angles are given as input.**
14. **Write a Python program to read the consumer number and number of units consumed and the cost per unit and print the amount to be paid.**
    (Amt=num of units*cost)
15. **Write a Python program to find the gross salary of the employee.**
    (read Basic, Da,Hra and pf is 10% of the basic)
16. **Write a Python program to convert temperature from Fahrenheit to Celsius and vice versa (c=(fh-32)/1.8 and f=(c*1.8)+32**
17. **Write a Python program to find area and perimeter of a circle.**
    (area=∏r2 perimeter=2∏r)
18. **Write a Python Program to find least number must be added to x to obtain a number exactly divisible by y. (x,y are inputs)**
19. **Write a Python Program to find least number must be subtracted from x to get the number exactly divisible by y. (x,y are inputs)**
20. **On dividing x by a certain number, the quotient is y and the remainder is z. Write a Python program to find the number.(x,y,z are inputs)**