Q2 Explain the Feature's of python.

→ Their are many Features of python like

① easy to code and easy to read

② Free and open source

③ Robust standart library

④ interpreted and portable.

⑤ object oreyented & Processer oregented

⑥ extensible and support GUI

⑦ dynamically typed and high level language.

Q5 What are the rules for creating variables?

→ A variable name must start with letter, under score.

A variable name cannot start with a number

A variable name can only contain Alpha numeric char and Under scores Ex A-Z, 0-9, 0-6 etc.

Variable names are case sensity Ex NAME, name.

The key words can not be used to name variable.

10 What are the use for upper function and lower function.

⇒ lower function :- This method converts all alphabatic characters to the lower case

Ex s = "Helloworld"
s2 = s.lower
Print(s2)
Output = hello world

upper function :- This method convert all alphabetic character to upper case

Ex s = "hello python"
s1 = s.upper()
Print(s1)
Output : HELLO PYTHON

7. membership oprator: in and not are the membership oprator used to test wheather a value or variable is in sequence or not.

Operator	Description
in	True if value is found in the sequnce
not in	True if value is not found in the sequence.

Example:

```
x=24
y=20
list=[10,20,30,40,50]
if(x not in list):
    print("x is not present")
else:
    print("x is present")
if(y in list):
    print("y is prensent")
else:
    print("y is not present")
```

Output:

x is not present
y is present

Experiment-5:- Write a Python program to demonstrate string slicing

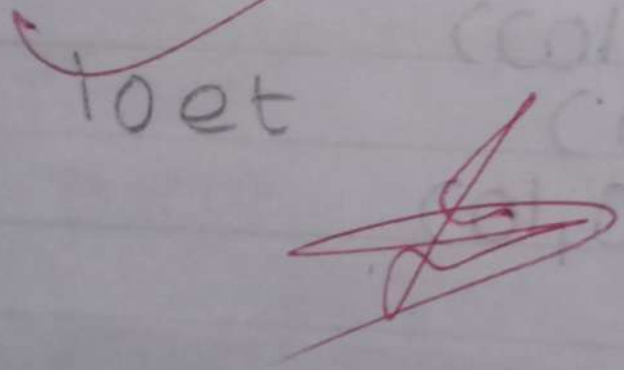
```
s="Welcome to JKU"
Print(s[0:8])
Print(len(s))
Print(s[1:16])
Print(s[:])
Print(s[0:])
Print(s[3:3])
Print(s[::-1])
Print(s[::2])
Print(s[::-2])
Print(s[4:2:2])
Print(s[-13:-4:2])
```

Output

Welcome
IS
LJKU
Welcome to LJKU
Welcome to LJKU

Uk JL
Wloet JU
UJ teolw

toet



Experiment 7: Write a python program to identify given number is odd or even

```
print("Enter Number:")
a = input()
if (int(a) % 2 == 0)
    Print ("Even Number")
else:
    Print("Odd Number")
```

Output

Enter Number : 24

Even Number

Q-1 Explain break statement in python using Loop.

A Break: It breaks control out of the for particular letter or digit

e.g: For letter in "Python":
    if (letter == "P"):
        break
    print ("current letter
letter

Output:
current letter : P

Exa :-

```
mark = int(input("Enter mark
if (mark >= 90):
    print("Grade A")
elif(mark >=70:)
    print("Grade B")
elif (mark >= 60):
    Print("Grade C")
else:
    print("Grade D").
```

output:

⇒ Enter marks: 50
Grade D

⇒ Enter marks = 75
Grade B

Q2 What is the difference between break and continue statement.

Continue statement	Break statement
⇒ It returns the control to the beginning of the loop	⇒ It breaks control out of the for, part letter or digits.

Q3 What is the difference between tuple and lists in Python?

A The difference between tuple and list are, the tuples cannot be changed unlike lists and tuples use parenthesis where as list use square brackets.

Q3 Explain Lists in python.

⇒ A list is a sequence of values. The values are characters in a list : they can be any type. The values in list are called element or sometimes items.

→ There are several ways to create a new list :

eg# Creating a list :-
List = [ ] output :- Blank List :-
Print ["Blank List :-", List] [ ]

Creating a list of numbers :-
eg: List = [10, 20, 30] output :- List of numbers :-
Print ["List of numbers :-"] [10 20 30]
Print (List)

- List Operation :-

The + operator concatinates list :-
eg: a = [1, 2, 3]
b = [4, 5, 6]
c = a+b output :- [1, 2, 3, 4, 5, 6]
print (c)

The * operator repeats a list given number of times :-
eg: a = [1]
a = a * 3
Print (a) Output :- [1, 1, 1]

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Practical :3

Write a python Program to declare a tuple and display it.

```
tuple1 = ("ABC", "PQR", 10, 20);
tuple2 = (1, 2, 3, 4, 5);
print (tup1)
Print (tup2)
tup3 = (7, 8, 9, 10, 11);
Print (tup3)
tup4 = ('a', 'b', 'c', 'x', 'el');
print (tup4)
tup5 = ();
Print (tup5)
tup6 = (50);
Print(tup6).
```

output

('ABC', 'DEF', 10, 20)

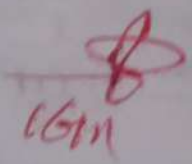
(1, 2, 3, 4, 5)

(4, 8, 9, 10, 11)

('a', 'b', 'c', 'x', 'e')

()

(50



Q8. Explain Comment in Python:

Ans

Comment in Python is the inclusion of short description along with the code to increase its readability.

Single - Line Comment.

```
# WAP to find square of num.
```

Multi - Line Comment

```
""" """
This is a comment
written in more than just one list
""" """
```

Q10 Write a python program to calculate the area of a circle.

A10.

```
r = float (input('Enter the radius'))
area = pi * r * r .

print('the area of circle is :', area)
```

output :-

```
Enter the radius : 3.
The area of circle is : 28.27
```

* List slices

['a', 'b', 'c', 'd', 'e', 'f']

Print (L [1:3])

Print (L [:4])

Print (L [3:])

Print (L [-4:-2])

output

b, c

a, b, c, d

d, e, f

c, d

1. Append(): adds an element at the end of the list.

```
Fruit = ["apple", "banana"]
Fruit.append("orange")
Print(Fruit)
```

Output:

["apple", "banana", "orange"]

8 pop() removes the element at the specified position

Fruit = ["apple", "orange", "cherry"]

fruit.pop(1)
print(fruit)

2 What is __init__(), Give example,

→ All classes have a function called __init__(), which is always executed when the class is being initiated.

→ The __init__() function is used to assign values to object properties & other operations that are neccessary to do when the object is being created.

Ex: class person:
    def __init__(self, name):
        self.name = name

* Answer in 2-3 lines:

1. How can a class be created in python?

→ To create a class use the keyword 'class',

```
class myclass:
    x = 5
```

- Accessing Values in Tuples:-

Accessing a tuple:-

eg: tup1 = ('physics', 'chemistry', 1997, 2000)
tup2 = (1, 2, 3, 4, 5, 6, 7);
Print("tup1[0]: ", tup1[0])
Print("tup2[1:5]: ", tup2[1:5])
output:- tup1[0]: physics
tup2[1:5]: (2, 3, 4, 5)

(iii) Multiplication :-

eg: a = 1

b = a * 3 output :- Multiplication is 3

Print ("Multiplication is :-", b)

eg: x = ('abc') * 2

Print ('output :-', 'abc', 'abc')

* The self parameter

→ The self parameter is a reference to the current instance of the class

→ It is used to access variables that belong to the class.

→ It does not have to be name self, you can called it whatever you like but it has to be the first parameter of any function in the class

13 What are the logical Operator and bitwise operator.

⇒ logical operator :- Perform logical fund, OR, NOT operation it is use to combine conditional statement

Operator	Description	syntax
AND	True if both the oprands are true	x and y
OR	True if either one oprand are True	x or y
Not	True if oprund is false	not x

Ex

```
x = 5
Print (x > 3 and x < 10)
Print (x > 3 or x > 10)
Print (not (x > 3) and (x < 10))
```

Output

```
False
True
True
```