**PART- B QUESTIONS**

1. Write a Python program to find the biggest of three numbers

i)without taking input from the user

ii)taking input from the user

2. Write a python program using functions to add two numbers

3. Write a python program

i)to compare two strings

ii)to join two strings

4. Write a python program using list to show the following slicing operation

a)i)items from index 2 to index 4

ii)items from index 5 to end

iii)items beginning to end

b)Write a program to show empty tuple,tuple with integers,tuple with different data typesanf nested tuple

5. Write a program to read the first line using readline()

6. Write a program in python to copy all the contents of one file to another file in upper case

7. Write a program in Python to demonstrate inheritance property for the Student class

8. Write a program in python to demonstrate polymorphism

9. Write a program to show the exception handling in Python

10. Show the working of Nested for loop in lists

**1.Write a Python program to find the biggest of three numbers**

i)without taking input from the user

ii)taking input from the user

# Python program to find the largest number among the three input numbers

# change the values of num1, num2 and num3

# for a different result

num1 = 10

num2 = 14

num3 = 12

# uncomment following lines to take three numbers from user

#num1 = float(input("Enter first number: "))

#num2 = float(input("Enter second number: "))

#num3 = float(input("Enter third number: "))

if (num1 >= num2) and (num1 >= num3):

largest = num1

elif (num2 >= num1) and (num2 >= num3):

largest = num2

else:

largest = num3

print("The largest number is", largest)

**Result: The largest number is 14**

**2.Write a python program using functions to add two numbers**

# function with two arguments

def add\_numbers(num1, num2):

sum = num1 + num2

print("Sum: ",sum)

# function call with two values

add\_numbers(5, 4)

**Output: Sum: 9**

**3.Write a python program i)to compare two strings ii)to join two strings**

i) str1 = "Hello, world!"

str2 = "I love Python."

str3 = "Hello, world!"

# compare str1 and str2

print(str1 == str2)

# compare str1 and str3

print(str1 == str3)

**output** False

True

ii) greet = "Hello, "

name = "Jack"

# using + operator

result = greet + name

print(result)

**Output**: Hello, Jack

**4.Write a python program using list to show the following slicing operation**

**a)i)items from index 2 to index 4**

**ii)items from index 5 to end**

iii)items beginning to end

# List slicing in Python

my\_list = ['p','r','o','g','r','a','m','i','z']

# items from index 2 to index 4

print(my\_list[2:5])

# items from index 5 to end

print(my\_list[5:])

# items beginning to end

print(my\_list[:])

**b)Write a program to show empty tuple,tuple with integers,tuple with different data typesanf nested tuple**

# Different types of tuples

# Empty tuple

my\_tuple = ()

print(my\_tuple)

# Tuple having integers

my\_tuple = (1, 2, 3)

print(my\_tuple)

# tuple with mixed datatypes

my\_tuple = (1, "Hello", 3.4)

print(my\_tuple)

# nested tuple

my\_tuple = ("mouse", [8, 4, 6], (1, 2, 3))

print(my\_tuple)

c)Write a python program to implement dictionary to print States and their capitals

**5.Write a program to read the first line using readline()**

myfile = open("demo.txt", "r")

myline = myfile.readline()

print(myline)

myfile.close()

**demo.txt**

Testing - FirstLine

Testing - SecondLine

Testing - Third Line

Testing - Fourth Line

Testing - Fifth Line

**Output:**

**Testing – FirstLine**

**6 .Write a program in python to copy all the contents of one file to another file in upper case**#To open the first file in read mode   
f1 = open("sample file 1.txt", "r")  
 # To open the second file in append mode   
f2 = open("sample file 2.txt", "a")   
# For loop to traverse through the file   
for line in f1:   
# Writing the content of the first   
# file to the second file   
# Using upper() function  
# to capitalize the letters   
f2.write(line.upper())

**7 a)Write a proram in Python to demonstrate inheritance property for the Student class**

class Person:

def \_\_init\_\_(self, fname, lname):

self.firstname = fname

self.lastname = lname

def printname(self):

print(self.firstname, self.lastname)

class Student(Person):

def \_\_init\_\_(self, fname, lname, year):

super().\_\_init\_\_(fname, lname)

self.graduationyear = year

x = Student("Mike", "Olsen", 2019)

print(x.graduationyear)

8.Write a program in python to demonstrate polymorphism

# A simple Python function to demonstrate

# Polymorphism

def add(x, y, z = 0):

return x + y+z

# Driver code

print(add(2, 3))

print(add(2, 3, 4))

9.Write aprogram to show the exception handling in Python

# Program to handle multiple errors with one

# except statement

# Python 3

def fun(a):

if a < 4:

# throws ZeroDivisionError for a = 3

b = a/(a-3)

# throws NameError if a >= 4

print("Value of b = ", b)

try:

fun(3)

fun(5)

# note that braces () are necessary here for

# multiple exceptions

except ZeroDivisionError:

print("ZeroDivisionError Occurred and Handled")

except NameError:

print("NameError Occurred and Handled")

output:

ZeroDivisionError Occurred and Handled

**10.Show the working of Nested for loop in lists**

adj = ["red", "big", "tasty"] fruits = ["apple", "banana", "cherry"] for x in adj: for y in fruits: print(x, y)

**output:**

red apple red banana red cherry big apple big banana big cherry tasty apple tasty banana tasty cherry

**Viva questions**

1. Why python is called Object oriented language

2. What are the characteristics of Python?

3. Who is the founder of Python?

4. Why List is called Sequential and mutable data type?

5. Give examples of immutable data types

6. Give the differences between Python and C languages

7. Give the differences between Dictonary and Tuple.

8. Explain Escape characters in Python.

9. How to give multiline comment in python?

10. What are the supported data types in Python?

11. What is the output of print str[0] if str = 'Hello World!'?

12. What is the output of print str[2:5] if str = 'Hello World!'?

13. What is the output of print str \* 2 if str = 'Hello World!'?

14. How will you convert a string to an int in python?

15. What is the purpose of // operator?

16. Explain polymormishm and Encapsulation in Python

17. Give the difference between shallow () and deep()

18. Discuss Inheritance

19. Explain class concepts in Python

20. Find the output for the following code

a)while count < nterms:

print(n1)

nth = n1 + n2

# update values

n1 = n2

n2 = nth

count += 1