CA4

**Paper** **name:** **Programming** **Concept** **With** **Python** **Paper** **Code:** **MCAN-101**

**Group** **A**

**Multiple** **Choice** **Questions**

1. Choose the correct alternative 1x5=5
2. Is Python case sensitive when dealing with identifiers?
   1. Yes ii)No iii)Machine Dependent iv)None of these
3. What will be the value of the following Python expression? 4 + 3 % 5
   1. 9 ii)8 iii)7 iv)5
4. What will be the output of the following Python code? i = 1

while True:

if i%3 == 0:

break print(i)

i + = 1

iii)12

1. Python supports the creation of anonymous functions at runtime, using a construct called
   1. Pi ii) anonymous iii) lambda iv)None of these
2. What does pip stand for python?
   1. Pip Installs Python ii) Pip Installs Packages iii) Preferred Installer Program iv) All of the mentioned

**Group** **B**

**Short** **Answer** **Type** **Questions**

1. Write a python program that will accept the names of students and a list of marks in 4 subjects using dictionary. Create another dictionary from this dictionary that has name of the students and their total marks. Also find the topper and his/her name. 5

num=int(input("Enter total number of student: "))

print()

std\_marksheet={}

std\_total\_marks={}

for i in range(1,num+1):

    print()

    name=input(f"{i}.Enter the name of the student: ")

    print(f"  Enter marks of student({name}): ")

    std\_marksheet.update({name:[int(input("  Sub1: ")),

                                int(input("  Sub2: ")),

                                int(input("  Sub3: ")),

                                int(input("  Sub4: "))

                               ]

                         }

                        )

    all\_marks=std\_marksheet.get(name) # list type

    total=sum(all\_marks)

    std\_total\_marks.update({name:total})

print("\nStudents name and their marks: ",std\_marksheet)

print("Students name and their total mark: ",std\_total\_marks)

value=list(std\_total\_marks.values())

key=list(std\_total\_marks.keys())

index\_max=value.index(max(value))

topper=key[index\_max]

print(f"\n{topper} is the topper(Marks:{value[index\_max]})\n")

**Output:**

Enter total number of student: 3

1.Enter the name of the student: Rohit Das

Enter marks of student(Rohit Das):

Sub1: 58

Sub2: 67

Sub3: 49

Sub4: 62

2.Enter the name of the student: Arohi Sen

Enter marks of student(Arohi Sen):

Sub1: 89

Sub2: 81

Sub3: 89

Sub4: 93

3.Enter the name of the student: Sayan Roy

Enter marks of student(Sayan Roy):

Sub1: 59

Sub2: 77

Sub3: 81

Sub4: 79

Students name and their marks: {'Rohit Das': [58, 67, 49, 62], 'Arohi Sen': [89, 81, 89, 93], 'Sayan Roy': [59, 77, 81, 79]}

Students name and their total mark: {'Rohit Das': 236, 'Arohi Sen': 352, 'Sayan Roy': 296}

Arohi Sen is the topper(Marks:352)

1. Write a program that prompts the user to enter a file name. Open the file and print the frequency of each word in it.

myFile------

apple mango apple orange orange apple guava mango mango

apple apple orange orange guava mango apple mango mango

file\_name=input("Enter the file name you want to open: ")

f=open(file\_name)

list2= []

for i in f:

    list1=i.split()

    for j in list1:

        list2.append(j)

set\_list=set(list2)

#print("list2:",list2)

#print("set\_list: ",set\_list)

for word in set\_list:

    c=list2.count(word)

    print(f"Frequency of {word} is {c}")

f.close()

**Output:**

Enter the file name you want to open: 3.myFile

Frequency of apple is 6

Frequency of mango is 6

Frequency of guava is 2

Frequency of orange is 4

1. Write a python program that prints only those words starting with a vowel. 5

my\_list = ["Abc", "phy", "and", "okay", "educate", "learn", "code"]

print("The original list of words:",my\_list)

my\_vowel = "aeiouAEIOU"

print("The vowels are ",my\_vowel)

result = []

for i in my\_list:

   flag = False

   for element in my\_vowel:

      if i.startswith(element):

         flag = True

         break

   if flag:

      result.append(i)

print("The words starts with vowels: ",result)

**Output:**

The original list of words: ['Abc', 'phy', 'and', 'okay', 'educate', 'learn', 'code']

The vowels are aeiouAEIOU

The words starts with vowels: ['Abc', 'and', 'okay', 'educate']

1. Describe the finally block in exception handling. Write a python program that opens a file and writes data to it. Handle exceptions that can be generated during the I/O exceptions. 5