1.print all vowels from list of single chars ?

```
list = ["sravani","ramya","divi","radika","sadvika"]
new = []
for i in list:
   for j in i:
      if j in "aeiouAEIOU":
         new += j
print(new)
```

o/p:

['a', 'a', 'i', 'a', 'a', 'i', 'i', 'a', 'i', 'a', 'a', 'i', 'a']

2. print all strs which are len > 5 and push to new list ?

```
list = ["sravani","ramya","divi","radika","sadvika"]
new = []
for i in list:
   if len(i)>5:
      new.append(i)
print(new)
```

o/p:

['sravani', 'radika', 'sadvika']

3. print all odd indices values in list ?

```
list = ["sravani","ramya","divi","radika","sadvika",True,False,33,3.33,76]
new = []
for i in range(1,len(list),2):
   new.append(list[i])
print(new)
```

o/p:

['ramya', 'radika', True, 33, 76]

4. print all odd indices values and find only str and that too len >3 and len<5?

```
list = ["sravanisri","devi","radika","sadvika",True,False,33,3.33,76]
new = []
for i in range(1,len(list),2):
   new.append(list[i])
   for j in new:
      if type(j)==str:
         if len(j) > 3 and len(j) < 5:
            print(j)
```

o/p:

devi

5. print all even indices values from list and push to new list .?

```
list = ["sravanisri","devi","radika","sadvika",True,False,33,3.33,76]
new = []
for i in range(1,len(list)):
   if i==2:
      new.append(list[i])
print(new)
```

o/p:

['radika']

Python Real-Time Task-Based Questions

Question 1: Name Vowels from Long Names

1.Extract only 2-digit numbers (from list with mixed data types)

```
data = [5, "23", "hello", 99, 105, "8", "77", 36, "ram", 7.8, 65, "100"]


two_digit = []   # new list


for i in data:
```

```
    # Case 1: Integer numbers
    if type(i) == int and 10 <= i <= 99:
        two_digit.append(i)
    # Case 2: Numeric strings
    elif type(i) == str and i.isdigit() and 10 <= int(i) <= 99:
        two_digit.append(int(i))


print(two_digit)
```

o/p:

[23, 99, 77, 36, 65]

Q2: Print each character of a string

```
A = str(input("enter the str :- "))
for i in A:
    print(i)
```

o/p:

enter the str :-sravani

s

r

a

v

a

n

i

Q3: Print all even numbers from a list

o/p:

```
lst = [0,1,2,3,4,5,6,7,8,9,10,88,36,77,12,13,76,73,92,44,19,17]
for i in lst:
    if i % 2 == 0:
```

```
    print(i)
```

o/p:

0

2

4

6

8

10

88

36

12

76

92

44

Q4: Calculate the sum of numbers in a tuple

```
tup = (0,1,2,3,4,5,6,7,8,9,10,88,36,77,12,13,76,73,92,44,19,170)
total = 0
for i in tup:
  total += i
print(total)
```

o/p: 755

Q5: Print names from a list

```
Names=[“sravani”,”sadvika”,”kalyani”]
for i in names:
  print(i)
```

o/p:sravani

sadvika

kalyani

5. Print square of numbers using range

```
num = int(input(" enter num :- "))
for i in range(1, num + 1):
   print(i ** 2)
```

o/p:

```
enter num :- 4
1
4
9
 16
```

6. Count vowels in a string

```
vowels = str(input(" enter str :- "))
count = 0
for char in vowels:
   if char in ["a", "e", "i", "o", "u"]:
      count = count + 1
print(count)
```

o/p:sravani

3

7. Reverse a string using a for loop

```
my_str = str(input(" enter str :- "))
for i in range(0, len(my_str)):
   if my_str[i]:
      print(my_str[::-1])
```

o/p: enter str :-sravani

inavars

inavars

inavars

inavars

inavars

8. Check if elements in a list are positive

```
element = [1, -2, 3, 4, 6, 7, 8, -4, -9, -10, 11, 12]
for i in element:
   if i >= 0:
      print(i, "positive")
```

o/p:

1 positive 3 positive 4 positive 6 positive 7 positive 8 positive 11 positive 12 positive

9. Print odd-indexed characters in a string

```
my_str = str(input("enter the str : - "))
for i in range(1, len(my_str)):
   if i % 2 != 0:
      print(my_str[i])
```

o/p:sravani

r

v

n

10. Print multiples of 3 using range

```
num = int(input("enter the num : - "))
for i in range(1, num):
   if i % 3 == 0:
      print(i, "is divisiable")
```

o/p:

enter the num : - 56 3 is divisiable 6 is divisiable 9 is divisiable 12 is divisiable 15 is divisiable 18 is divisiable 21 is divisiable 24 is divisiable 27 is divisiable 30 is divisiable 33 is divisiable 36 is divisiable 39 is divisiable 42 is divisiable 45 is divisiable 48 is divisiable 51 is divisiable 54 is divisiable

11. Find the product of numbers in a list

```
num = [1, 2, 3, 4, 5, 6, 7, 8, 9]
total = 1
for i in num:
   total = i * total
print(total)
```

o/p: 362880

12. Count how many times a specific character appears in a string

```
my_str = str(input("enter the str:- "))
count = 0
for i in my_str:
   if "r" in i:
      count = count + 1
print(count)
```

o/p: enter the str:-sravani

1

13. Print each element of a tuple with its index

```
my_tuple = ("sri", 1, "ram", 1.3, [1, 2, 3])
for i in range(0, len(my_tuple)):
   print(i, my_tuple[i])
```

o/p:

0 sri

1 1

2 ram

3 1.3

4 [1, 2, 3]

14. Print numbers from 10 to 1 using range

```
for i in range(10, 0, -1):
   print(i)
```

o/p:10

9

8

7

6

5

4

3

2

1

15. Convert each string in a list to uppercase

```
my_str = ["sravani", "ramya", "sirisha"]

for i in my_str:
   print(i.upper())
```

o/p:SRAVANI

RAMYA

SIRISHA

Nested List Extractor

Given two lists containing mixed data types (strings, integers, floats, and nested lists), write a Python program to: 1. Iterate through both lists using a for loop. 2. Identify and extract all elements that are of list type. 3. Store and print all extracted lists in a new list. Expected Concepts Used: • for loop • range() and len() • type() function • List operations and .append()

```
str_list = []

a = ["sri", 88, 88.4, ["S", "a", "j"], [6, 7, 3, 9]]

b = ["sai", 99.0, 66, ["a", "k", "l", "i"], [9, 3, 4, 5]]


for i in range(0, len(a)):
   if type(a[i]) == list:
```

```
    str_list.append(a[i])
print(str_list)


for i in range(0, len(b)):
  if type(b[i]) == list:
    str_list.append(b[i])
print(str_list)
```

O/P:

[['S', 'a', 'j'], [6, 7, 3, 9]]

[['S', 'a', 'j'], [6, 7, 3, 9], ['a', 'k', 'l', 'i'], [9, 3, 4, 5]]

Print Numbers 1 to 10

```
For i in range(1,11):
Print(i)
```

o/p:

1

2

3

4

5

6

7

8

9

10