**1]**

[] – List

**2]**

spam = [2, 4, 6, 8, 10]

spam.insert(2,'hello')

print(spam) O/P: [2, 4, 'hello', 6, 8, 10]

**3]**

spam[int(int('3' \* 2) / 11)]

Error

**4]**

spam = [2, 4, 6, 8, 10]

print(spam[-1]) o/p = 10

**5]**

spam = [2, 4, 6, 8, 10]

print(spam[:2]) o/P : [2, 4]

**6]**

bacon = [3.14,'cat',11,'cat',True]

print(bacon.index('cat')) O/P: 1

prints the first occurrence of ‘cat’ in list

**7]**

bacon = [3.14,'cat',11,'cat',True]

bacon.append(99)

print(bacon) O/P: [3.14, 'cat', 11, 'cat', True, 99]

It appends end on the list

**8]**

bacon = [3.14,'cat',11,'cat',True]

bacon.remove('cat')

print(bacon) O/P: [3.14, 11, 'cat', True]

Removes the 1st occurrence of ‘cat’

**9]**

list concatenation – adding 2 list

list\_1 = [22,45,67,84,90]

list\_2 = [56,63,25,90,21]

op = list\_1 + list\_2

print(op) O/P: [22, 45, 67, 84, 90, 56, 63, 25, 90, 21]

list replication operators - \* multiply 2 list

list\_1 = [22,45,67,84,90]

l = []

for i in range (0,len(list\_1)):

    l.append(list\_1[i]\*list\_1[i])

print(l) O/P: [484, 2025, 4489, 7056, 8100]

**10]**

append() – adds the value to end of the list.

insert() – inserts the value to the given index.

**11]**

Two methods for removing items from a list – POP() and Remove()

Pop() – Removes the returns the value from the given index, if no index given it removes the last index value.

Remove() – Removes the value of the 1st occurrence.

**12]**

Lists[] are mutable – Once we create an object, we can modify it on the same id. List can contain str

Strings” ” are immutable – Once we create the object we cannot modify it. Str cannot contain list

**13]**

Tuple() are immutable – Once we create the object we cannot modify it. Read only list

Lists are mutable – Once we create an object, we can modify it on the same id. Any changes made will happen at the same id.

**14]**

'int' object is not iterable

**15}**

List[] and tuple() functions

**16]**

Contains reference list value

**17]**

Copy() - Creates a copy of existing list, shallow copy

Deepcopy() – it is a process where we create a new object and add copy elements

my\_list = [74,89.4,883,'aaa',7.2,'abx']

print(my\_list, id(my\_list))

import copy

new\_list = copy.copy(my\_list)

print(new\_list, id(new\_list))

new\_list1 = copy.deepcopy(my\_list)

print(new\_list1, id(new\_list1))

output

[74, 89.4, 883, 'aaa', 7.2, 'abx'] 2282452649856

[74, 89.4, 883, 'aaa', 7.2, 'abx'] 2282459061888

[74, 89.4, 883, 'aaa', 7.2, 'abx'] 2282457862272