**Python Assignment 2**

1. Create an empty list and do the following:

list = []

* 1. Add elements [1,2,’a’,”bat”] to the list

list = [1,2,’a’,”bat”]

* 1. Print length of the list

len(list)

* 1. Add value 45 at index number 2

list.insert(2,45)

* 1. Print items with index number 1 to index number 3

print.list[1:4]

* 1. What is the difference between pop() and remove()

Remove deletes first element from list and pop deletes element at specified index

1. Create a list of numbers from 0 to 10 using range() function and then print the numbers which are even

for i in range(11):

print(i)

1. What is membership in list and how do you check it.

In - Evaluates to true if it finds a variable in the specified sequence and false otherwise.

Not in - Evaluates to true if it does not finds a variable in the specified sequence and false otherwise.

1. Given a list [23, 45, 67, 19, 38]. Write a program for following using the built in functions:
   1. Print max value from list - print max(list)
   2. Print min value from list - print min(list)
   3. Sort the list in ascending order – list.sort()
   4. Sort the list in descending order - list.sort(reverse=true)
2. Without using the built in functions write python program for the above problem (3)
3. Write a program to create two lists and compare them using built in function. Explain what you have observed.

List1, List2 = [1,2,3,4,5] , [‘a’,’b’,’c’,’d’,5]

returnMatches(List1, List2)

returns 5

1. Write a program in python to remove duplicates from a list
   1. Using built in functions

def remove\_duplicates():

r = ['a', 'b', 'c', 'd',’e’]

r1 = ['a', 'c', 'e']

for r in r1:

r.append(r1.remove())

return r

* 1. Without using built in function

1. Write a program to compare two lists A and B and print items that are in A but not in B

List1 = [7,8,9]

List2 = [7,8,10]

if (list1 ==list2):

print(a)

1. Write a program for following:
   1. Create empty tuple - tup = ()
   2. Can you add items to a tuple? Explain – Tuple is immutable we have to create a new one
   3. Create a tuple (1, 12, 55, 12, 81) and iterate through the tuple and print the values to stdout
   4. Check for membership of items ‘55’ and ‘46’ in tuple created in ‘c’
2. What is the difference between tuple and list? Explain

List is mutable we can change the values in list

Tuples are immutable – cannot change the elements