# PYTHON – WORKSHEET 5

## Q1 to Q10 have only one correct answer. Choose the correct option to answer your question.

1. Which of the following operators can be used to concatenate two lists?
   1. \* B) &

C) + D) none of the above

ANS: **C**

1. Consider the below two statements and select the correct option accordingly
2. List is an immutable data type like strings.
3. Lists are two dimenionsal data-structures.
   1. i-True, ii-False B) i-True, ii-True

C) i-False, ii-False D) i-False, ii-True

ANS: **D**

1. What will be the output of the following list comprehension? L=[x.upper() for x in [“abc”,” rahul”,” nitin”]]
   1. [“aBc”,” Rahul”,” nitIN”] B) [“ABC”,” RAHUL”,” NITIN”]

C) [“ABc”,” RAHul”,” NItin”] D) None of the above

ANS: **B**

1. What will be the output of the following list comprehension? L = [x for x in [1,2,3,4,5,6] if x%2==0]

A) [2,3,4] B) [1,3,4]

C) [4,5,6] D) [2,4,6]

ANS: **D**

1. What will be the output of the following line of code? A = [2,3,45,6,8,9]

B = A[1:4]

C = [ x for x in B if x%2==0]

A) [3,45,6] B) [45]

C) [6] D) [45,6]

ANS: **C**

1. What will be the output of following lines of code? a = {1,4,6,8}

b = {2,4,6,8}

c = {1,3,5,7}

print(a.intersection(a.difference(b)))

A) {2,3} B) {3,5}

C) {1,7} D) None of the above

ANS: **D**

1. What will be the output of the following lines of code? A = {1,22,22,3}

print(a)

A) {1,22,22,3} B) error

C) {1,3,22} D) None of the above

ANS: **D**

1. By which of the following ways you can access the set {1,2,3} in the following line of code? a=["asd",["d",{1,2,3},3],23]

A) a[0][2] B) a[1][0]

C) a[1][1] D) None of the above

ANS: **C**

1. Which of the following is not a method of sets in python?
   1. difference() B) intersection()

C) symmetric\_difference() D) None of the above

ANS: **C**

1. Which of the following is true with respect to sets in python? (**More Than One options may be correct. Mark all the correct options)**
   1. sets are one-dimensional data structures
   2. no two elements of a set can be same
   3. sets are immutable
   4. All of the above.

ANS: **A, B**

## Q11 is subjective answer type question, answer it briefly.

1. List any two major differences between lists and sets in python.

|  |  |
| --- | --- |
| **LIST** | **SET** |
| 1.List are collection of ordered set of data. It doesn’t need to be homogeneous.  2. List items are ordered and have a definite count.  3. List items are mutable; duplicates value can be stored.  4. The items in list are enclosed by square bracket  5. A list can be created using keyword ‘list’  6. Lists are slightly faster than sets when we just want to iterate over the values. | 1. It is a unordered collection of data. 2. It is mutable and has no duplicated values. 3. The elemnets in the set are enclosed by curley bracket. A set can be created using keyword ‘set’ 4. Sets are mutable collection of distinct immutable values that are unordered. To initialize a set with values, we can pass in a list to set( ). |

## Q12 to Q15 are programming questions. Answer them in Jupyter Notebook.

1. write a python program to square the elements of a list by using list comprehension.
2. Write a pyhton program to drop duplicate elements from a list of numbers.
3. Take two sets of numbers and try implementing the set operations - intersection, union, difference and symmetric\_difference between them.
4. Write a python program to add the elements of a set.

NOTEBOOK LINK :

<https://github.com/Abhishek577/Worksheets/tree/master/PYTHON/WORKSHEET%205>