SET Practice Questions

Q1. Write a Python program to check if a given value is present in a set or not Take the input from the user

Q2. Write a Python program to create an intersection of sets. Without using ‘&’ operator.

Q3. Write a Python program to create a union of sets.

Without using ‘|’ operator

Q4.  Write a Python program to remove an item (taken from the user) from a set if it is present in the set.

Q5.Write a Python program to add and Update member(s) to a set. Take the input from the User and then add and update member in a set (Input should be a string value)

### Q6.  Write a Python program to remove all elements from a given set

*Sample Output*

{ "Red", "Green", "Pink", "White", "Black", "Yellow", "Blue" }

After Remove all Elements give Sets : set()

Q7. Write a Python program to check if two sets (take 2 sets input from the user) are equal.

Q8.  Write a Python program to add() member(s) to a set. Take the input from the User and then add() member in a set (Input should be a numerical value)

Q9. Write a Python program to add() and Update() list to a set. Take the input from the User in the form of list then add() and update() in a set

Input:-

L = [1,6,4,’hi’,’python’]

S = {3,5,2,’happy’,’coding’}

Q10. Add a tuple (take input from the user) of elements to a set without using add() or update() Example:-

enter a tuple:-("Blue", "Green", "Red")

('Blue', 'Green', 'Red')

{'Red', 'Yellow', 'Black', 'Green', 'Blue', 'Orange'}

Q11. Write a Python program to create set difference between 2 set (sets should be defined by user)

Q12. Write a Python program to create a symmetric difference between 2 set (sets should be defined by user)

Q13.  Write a python program to check if a set is a subset of another 2 set.(take 3 sets as an input from the user)

Q14. Write a Python program to create a shallow copy of sets.take input from the user.(take input from the user)

Q15. Write a Python program to find the maximum

values in a set without using max() function.(take input from the user)

Q16. Write a Python program to find the minimum values in a set without using min() function.(take input from the user)

Q17. Write a Python program to check if two given sets have no elements in common. (take input from the user)

Q18. Write a Python program to check if a given set is a superset of itself and a superset of another given set.

Q19.  Write a Python program to find the two numbers whose product is maximum among all the pairs in a given list of numbers. Use the Python set.

Q20. Write a Python program to find the third largest number from a user defined set

### Q21. Remove items from set1 that are not common to both set1 and set2.

set1 = {10, 20, 30, 40, 50}

set2 = {30, 40, 50, 60, 70}

Output:-{40, 50, 30}

### Q22.  Update set1 by adding items from set2, except common items

set1 = {10, 20, 30, 40, 50}

set2 = {30, 40, 50, 60, 70}

Output:- {70, 10, 20, 60}

Q23.Write a program to count number of vowels

using sets in given string(take the string as input from the user) Example:-

String : Raj institute of Coding and Robotics

Vowels : {'E', 'u', 'o', 'O', 'I', 'A', 'U', 'a', 'i', 'e'}

Number of Vowels : 12

Q24.Find the union, symmetric difference, and intersection of the two sets. Print the results of each operation . *Sample Output*

Set 1 : {5, 6, 7, 8, 9, 10, 11, 12, 13, 14}

Set 2 : {('Python', 'Coding'), 40, ('R', 'I', 'C', 'R'), 15, 200}

Union : {5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 40, ('R', 'I', 'C', 'R'), 15, 200, ('Python', 'Coding')}

Symmetric Difference : {5, 6, 7, 8, 200, 9, 10, 11, 12, 13, 15, 14, ('Python', 'Coding'), 40, ('R', 'I', 'C', 'R')}

Intersection : set()

Q25.Write a Python program to find the elements in a given set that are not in another set. *Sample Output*

X = {50, 20, 70, 40, 10, 60, 30}

Y = {80, 50, 100, 70, 90, 60}

X and Y = {40, 10, 20, 30}

Y and X = {80, 90, 100}

## Q26. Python Program to Square the Elements of Set Using for Loop

Q27. Write a python program to add all the element in a set and set should be user defined.

Q28. Write a python program to find the average of

all the element in a set and set should be user defined.

Q29. Write a python program to [multiply](https://www.google.com/search?sca_esv=4c45a275ab92484d&rlz=1C1JJTC_enIN1068IN1068&sxsrf=ADLYWIKpqWeBgjwYNy10rHVr409A3X_U9Q:1723727047617&q=multiply&spell=1&sa=X&ved=2ahUKEwjIqvPSh_eHAxXKwjgGHUiBAF8QkeECKAB6BAgXEAE) all the element in a set and set should be user defined

Q30. WAP to input 2 set and display the maximum element from the element of both the sets combined

Q31. Write a Python program to create set difference

*Sample Output*

A = {80, 50, 20, 70, 40, 30}

B = {50, 20, 90, 40, 10, 60}

Output:-

{80, 70, 30}

{90, 10, 60}

Q32. Write a Python program to find the elements ina given set that are not in another set. *Sample Output*

X = {50, 20, 70, 40, 10, 60, 30}

Y = {80, 50, 100, 70, 90, 60}

X and Y = {40, 10, 20, 30}

Y and X = {80, 90, 100}

Q33. Write a Python program to remove all the even number in a set and set should be user defined.

Q34. Write a Python program to add 1 in all the element in a set and set should be user defined

Q35. Write a Python program to convert all the even number of a set into a string and set should be user defined.

Input:- {5, 6, 7, 8, 9, 10, 11, 12, 13, 14}

Output:- {'10', 5, 7, 9, 11, 13, '14', '6', '8', '12'}

Q36. Write a Python program to convert one even number(taken from user) of a set into a float and set should be user defined.

Q37.Write a Python program to convert all the odd number of a set into a float and set should be user defined.

Input:- {5, 6, 7, 8, 9, 10, 11, 12, 13, 14}

Output:- {5.0, 6, 7.0, 8, 9.0, 10, 11.0, 12, 13.0, 14}

Q38. Write a python program which gives sum of all the even and odd element in a set

Q39. Write a python program which gives product of all the even and odd element in a set

Q40.Write a program to convert all the integer element of a set into float and the float element of a set into integer and set should be user defined

Input:- {5.0, 6, 7.0, 8, 9.0, 10, 11.0, 12, 13.0, 14}

Output:- {5, 6.0, 7, 8.0, 9, 10.0, 11, 12.0, 13, 14.0}

Q41.Write a program to multiply all the float element in the set . set should be user defined

Q42.Write a program to add all the integer element in a set and set should be user defined

Q43.Write a python program to remove all string element in a set and set should be user defined

Input:- {5, 'abc', 7, 8.0, 'def', '10.0', 11, 12.0, '123', 14.0}

Output:- {5, 7, 8.0, 11, 12.0, 14.0}

Q44. write a python program to finds the Cartesian product of the two sets, s1 and s2.The Cartesian product of these two sets is stored in a third set, that is, s3.

Input:-

s1={3, 4}

s2={1, 2}

Output:-{(3, 1), (3, 2), (4, 1), (4, 2)}

Q45. Write a python program that takes as input a set of integers and returns the sum of all the prime numbers

input:-s={3,3,1,13}, e={2,4,6,9,11}, t={-3,1,6}

output:-16,13,0

Q46. Write a python program that takes as input a set of integers and returns the product of all the prime numbers.