**Sets MCQS**

**1.Which of the following is the correct syntax to create a set in Python?**

A) set = {1, 2, 3}  
B) set = (1, 2, 3)  
C) set = [1, 2, 3]  
D) set = dict(1, 2, 3)

**2.Which of the following is a valid way to create an empty set?**

A) set = {}  
B) set = []  
C) set = set()  
D) set = ()

**3.Which operation checks if an element exists in a set?**

A) exists  
B) in  
C) find  
D) contains

**4.What will be the output of the following code?**

set1 = {1, 2, 3}

set2 = {3, 4, 5}

print(set1 & set2)

A) {3}  
B) {1, 2, 3, 4, 5}  
C) {}  
D) {1, 2}

**5.Which method is used to remove an item from a set without raising an error if the item does not exist?**

A) remove()  
B) discard()  
C) delete()  
D) pop()

**6.Which of the following is true about Python sets?**

A) Sets allow duplicate elements  
B) Sets maintain the order of elements  
C) Sets are mutable  
D) Sets can contain mutable objects

**7.Which method can be used to remove all elements from a set?**

A) clear()  
B) delete()  
C) pop()  
D) remove()

**8.What is the result of the difference operation on two sets {1, 2, 3} and {2, 3, 4}?**

A) {1, 4}  
B) {1}  
C) {2, 3}  
D) {}

**9.What will be the result of the following code?**

set1 = {1, 2, 3}

set1.add(4)

print(set1)

A) {1, 2, 3}  
B) {1, 2, 3, 4}  
C) {1, 4}  
D) Error

**10.What will be the output of the following code?**

set1 = {1, 2, 3}

set1.update([4, 5])

print(set1)

A) {1, 2, 3}  
B) {1, 2, 3, 4, 5}  
C) {4, 5}  
D) Error

**11.What will be the output of the following code?**

set1 = {1, 2, 3}

set2 = {3, 4, 5}

print(set1 & set2)

A) {3}  
B) {1, 2, 3, 4, 5}  
C) {}  
D) {1, 2}

**12.What will be the output of the following code?**

set1 = {1, 2, 3}

set1.discard(4)

print(set1)

A) {1, 2, 3}  
B) Error  
C) {}  
D) {1, 2}

**13.Which method is used to get a union of two sets in Python?**

A) |  
B) &  
C) ^  
D) +

**14.What will happen if you try to add a duplicate element to a Python set?**

A) It will raise a ValueError  
B) The duplicate will be ignored  
C) The set will store the duplicate  
D) The set will raise a TypeError