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