**Experiment No.: 9**

**Aim:** Write a program to implement the various primitive operations of classical sets

A = {1, 2, 3}

B = {3, 5, 6}

# Union

union\_set = A | B

print(f'Union (A ∪ B): {union\_set}')

# Intersection

intersection\_set = A & B

print(f'Intersection (A ∩ B): {intersection\_set}')

# Complement

universal\_set = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

complement\_A = universal\_set - A

print(f'Complement of A (A\'): {complement\_A}')

# Difference

difference\_set = A - B

print(f'Difference (A \ B): {difference\_set}')

# Cartesian Product

cartesian\_product = {(a, b) for a in A for b in B}

print(f'Cartesian Product (A × B): {cartesian\_product}')

**Output:**

