Q6. Solution-

Given

-Size of the Hash table is 12

-Open addressing of type linear probing is used to resolve collisions

-H(K) = K mod 12 or H(K) = K%12

K values = 36, 10, 9, 13, 12, 45, 25, 34
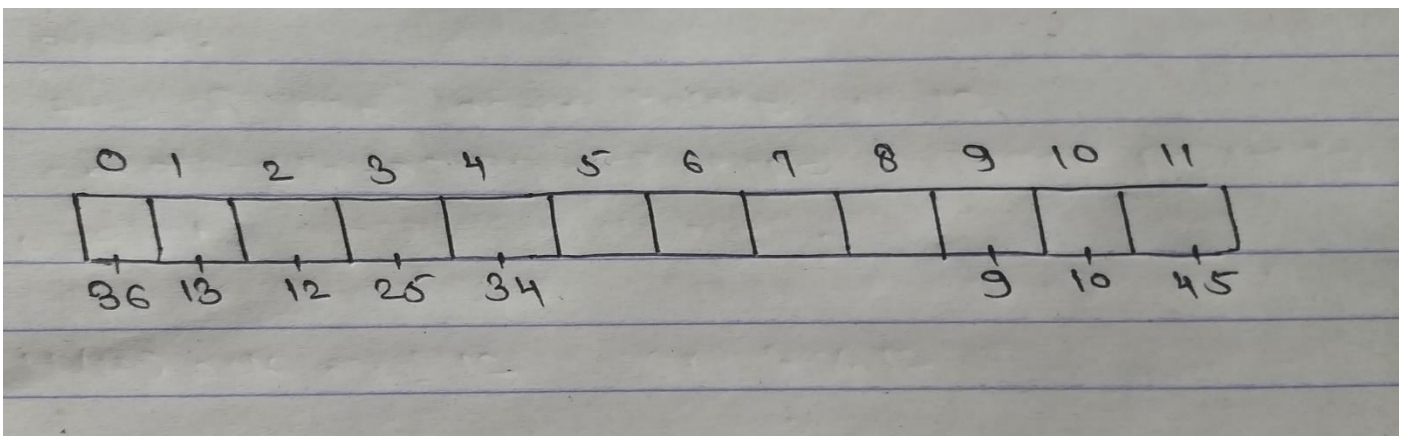
Therefore,

Hash values

36%12 = 0

10%12 = 10

9%12 = 9

13%12 = 1

12%12 = 0

45%12 = 9

25%12 = 1

34%12 = 10

36 is placed at index '0', 10 is placed at index '10', 9 is placed at index '9', 13 is placed at index '1'. Now Hash value of 12 is also 0which is already occupied so next empty index position is used to place 12 [here at index '2'], again collision for 45 so next empty position after index 9 in circular way is used to place 45 [at index '11'], again collision for 25 so next empty position after index 1 in circular way is used to place 25 [at index '3'], again collision for 34 so next empty position after index 10 in circular way is used to place 34 [at index '4'].