**Que 1 : Iterating over a dictionary using loops.**

Dictionaries store data as key-value pairs, and you can loop over them using for loops in several ways:

Sample Dictionary:

info = {

"Name": "Krishna",

"Age": 20,

"Course": "BCA"

}

1. **Looping Over Keys**

for key in info:

print(key)

Output : Name

Age

Course

**2. Looping Over Keys**

for key in info.keys():

print(key)

**3. Looping Over Values**

for value in info.values():

print(value)

Output : Krishna

20

BCA

**4. Looping Over Key-Value Pairs**

for key, value in info.items():

print(key, ":", value)

Output : Name : Krishna

Age : 20

Course : BCA

**5. Looping and Formatting**

for k, v in info.items():

print(f"{k.upper()} --> {v}")

Output : NAME --> Krishna

AGE --> 20

COURSE --> BCA

**Que 2 : Merging two lists into a dictionary using loops or zip().**

You can merge two lists — one of **keys** and one of **values** — into a dictionary using:

1. Using zip()

keys = ['Name', 'Age', 'Course']

values = ['Krishna', 20, 'BCA']

merged\_dict = dict(zip(keys, values))

print(merged\_dict)

Output : {'Name': 'Krishna', 'Age': 20, 'Course': 'BCA'}

2. Using a for loop

keys = ['Name', 'Age', 'Course']

values = ['Krishna', 20, 'BCA']

merged\_dict = {}

for i in range(len(keys)):

merged\_dict[keys[i]] = values[i]

print(merged\_dict)

Output: {'Name': 'Krishna', 'Age': 20, 'Course': 'BCA'}

**Que 3 : Counting occurrences of characters in a string using dictionaries.**

You can use a **dictionary** to count how many times each character appears in a string.

Example Program:

text = "krishna"

char\_count = {}

for char in text:

if char in char\_count:

char\_count[char] += 1 # increment count if already exists

else:

char\_count[char] = 1 # set to 1 if it's the first time

print(char\_count)

Output : {'k': 1, 'r': 1, 'i': 1, 's': 1, 'h': 1, 'n': 1, 'a': 1}

**Count with collections.Counter**

from collections import Counter

text = "krishna"

char\_count = Counter(text)

print(char\_count)