1. **What does an empty dictionary's code look like?**

Ans: It can be created using a pair of curly braces with nothing inside them. Example:

My\_dict = **{}**

Also,

My\_dict1 = **dict()**

1. **What is the value of a dictionary value with the key 'foo' and the value 42?**

Ans:

dict1= {‘foo’:42}

print(dict1[‘foo’]) ##output: 42

1. **What is the most significant distinction between a dictionary and a list?**

Ans: A **dictionary** is an **unordered** **collection of key-value pairs**, while a **list** is a **ordered** **collection of values**.

In dictionary, each key-value pair maps a unique kay to a value. The keys are used to access the corresponding values in the dictionary. A key can be immutable type(string, tuple, or integer), but must be unique. On the other hand, a value in a dictionary can be of any type and can be duplicated

In a list, the elements are ordered and indexed using integers starting from 0. The elements can be of any type and can be duplicated. The order of elements in a list is important and determines the position of each element in the list.

1. **What happens if you try to access spam['foo'] if spam is {'bar': 100}?**

Ans**:** We will get a ‘**KeyError’** because the key ‘foo’ does not exist in the dictionary ‘spam’

1. **If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.keys()?**

Ans: There is no difference, both ‘cat’ in spam and ‘cat’ in spam.keys(), will check if there is any key ‘cat’ in the ‘spam’ dictionary.

1. **If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.values()?**

Ans, ‘cat’ in spam, checks for key ‘cat’ in the dictionary. But ‘cat’ in spam.keys() will check for value ‘cat’ in the dictionary.

7. **What is a shortcut for the following code?**

**if 'color' not in spam:**

**spam['color'] = 'black'**

Ans:

**Spam.setdefault(‘color’, ‘black’)**

This code will add the key-value pair **'color': 'black'** to the dictionary **spam** if the key **'color'** is not already present. If the key **'color'** is present, it will not modify the existing value

1. **How do you "pretty print" dictionary values using which module and function?**

Ans: To "pretty print" dictionary values in Python, you can use the **pprint** module which provides the **pprint()** function. The **pprint()** function can print a dictionary or any other data structure in a more human-readable and formatted way.

Example:

Import pprint

my\_dict= {‘name’: ‘John’, ‘age’:30, ‘address’:{‘street’:’123 Main St’, ‘city’: ‘Anytown’}}

pprint.pprint(my\_dict)

Output:

{‘address’:{‘street’:’123 Main St’, ‘city’: ‘Anytown’},

‘age’:30,

‘name’:’John’}