1. What does an empty dictionary's code look like? **{}, dict()**

2. What is the value of a dictionary value with the key 'foo' and the value 42? **{‘foo’:42}**

3. What is the most significant distinction between a dictionary and a list? **Dictionary is an unordered collection of key-value pairs, while a list is an ordered collection of values**

4. What happens if you try to access spam['foo'] if spam is {'bar': 100}? **We will get the KeyError exception**

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

**The expression 'cat' in spam will check if the key 'cat' exists in the dictionary spam, while the expression 'cat' in spam.keys() will check if the key 'cat' exists in the list of keys returned by the keys() method of the dictionary spam. These two expressions are not equivalent, and they will produce different results depending on whether the key 'cat' exists in the dictionary or not**

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

**The expression 'cat' in spam will check if the key 'cat' exists in the dictionary spam, while the expression 'cat' in spam.values() will check if the value 'cat' exists in the list of values returned by the values() method of the dictionary spam. These two expressions are not equivalent, and they will produce different results depending on whether the value 'cat' exists in the dictionary or not**

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

**spam.setdefault('color', 'black')**

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

**In Python, you can use the pprint() function from the pprint module to "pretty print" dictionary values. The pprint() function formats the output in a more readable and organized way, with indentation and line breaks added to make the output easier to understand.**

**import pprint**

**my\_dict = {'foo': 42, 'bar': 23, 'baz': 17}**

**pprint.pprint(my\_dict)**