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

Ans: my_dict = {}

my_dict = dict()

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

Ans: my_dict = {'foo': 42}

print(my_dict['foo']) # Output: 42

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

Ans: dictionary is a collection of key-value pairs, while a list is a collection of values. This means that a dictionary allows you to access its values using a unique key for each value, while a list only allows you to access its values using a numerical index.

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

Ans: we will get '**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()?

Ans: The difference between the expressions 'cat' in spam and 'cat' in spam.keys() is that the first expression checks if the key 'cat' exists in the dictionary, while the second expression checks if the value 'cat' exists as one of the keys in spam.keys() list.

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

Ans: The difference between the expressions 'cat' in spam and 'cat' in spam.keys() is that the first expression checks if the key 'cat' exists in the dictionary, while the second expression checks if the value 'cat' exists as one of the keys in spam.keys() list.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

Ans: use the setdefault() method of a dictionary. The setdefault() method allows you to set the value of a key in the dictionary if the key does not exist, without having to check if the key exists first

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

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

Ans: we can "pretty print" dictionary values using the pprint() function from the pprint module.

```python
from pprint import pprint

my_dict = {
    'foo': 42,
    'bar': 24,
    'baz': 16,
}

pprint(my_dict)  #output: {'bar': 24, 'baz': 16, 'foo': 42}
```