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

Ans: {}

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

Ans: {'foo': 42}

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

Ans: A list is a collection of elements which are referenced by indices (starting from 0 or -1). The order of a list is always preserved. A dictionary is a collection of key-value pairs. The values are accessed using the keys, which can be of any data type. The elements of a dictionary are unordered.

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

Ans: A KeyError is received as the dictionary has no key named 'foo'.

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

Ans: In both cases, the operation searches for a key named 'cat' in the dictionary. There is no difference.

6. 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 the key named 'cat' in the dictionary.

'cat' in spam.values() checks for the value named 'cat'.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

Ans: By using setdefault() method.

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

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

Ans: To "pretty print" dictionary values, the module pprint is imported. The functions in the module are pprint() and pformat().