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

Ans: a = { } # Here a is an empty dictionary.

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

Ans: a = {'foo': 42}

here a is the dictionary where one pair of key value is present with key as 'foo' and value as 42

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

Ans: Dictionary consists of set of key-value pairs and since it is unordered the elements cannot be accessed using indices instead key is used.

 List is ordered set of elements not necessarily of the same type and elements in the list can be accessed using indices.

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

Ans: We get KeyError

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

Ans: Both the statements checks for 'cat' is present as key in spam. So, basically 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 if 'cat ' is present as key in spam

 'cat' in spam.values() checks if 'cat ' is present as value in spam

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

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

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

Ans: Using the module pprint and the function pprint()