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

spam = {}

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?

list is indexed, dictionary is hashed key value pair.

list can be ordered.

List indices are integers starting from 0. Dictionary keys can be any Datatype

spamList = [‘value0’, ‘value1’, ‘value2’, ‘value3’]

spamList[2] = ‘value2’

spamDict = {‘key0’ : ‘value0’, ‘key1’ : ‘value1’, ‘key2’ : ‘value2’, ‘key3’ : ‘value3’ }

spamDict[2] → Gives KeyError

in List the way data is entered, the order is maintained. in Dictionary the order of input entered is not maintained. so every time you call dictionary, different order of key value pair is displayed.

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

you get KeyError because their is no key called ‘foo’

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

'cat' in spam -> in operator checks for the key ‘cat’ in spam Dictionary

'cat' in spam.keys() -> checks if there is a key called ‘cat’ amongst all the keys in spam Dictionary

both the expression above give same result

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

'cat' in spam -> in operator checks for the key ‘cat’ in spam Dictionary

'cat' in spam.values() -> checks if there is a value called ‘cat’ amongst all the values in spam Dictionary

so one expression is looking in keys and the other is looking in values.

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?

Using Module pprint and function pprint()

import pprint

pprint.pprint(sample\_dict)