1. What does an empty dictionary's code look like?  
   => empty\_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?  
   => A list is an ordered sequence of objects, whereas dictionaries are unordered sets. the main difference is that items in dictionaries are accessed via keys and not via their position.  
   4. What happens if you try to access spam['foo'] if spam is {'bar': 100}?  
   => KeyError: 'foo'  
   5. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and  
   'cat' in spam.keys()?

* spam ={'cat':100}

'cat' in spam

'cat' in spam.keys()

There is no differnce, both check if 'cat' is key of the dictionary and if its a key, returns True.

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

=>

spam ={'cat':100}

'cat' in spam.values()

False

'cat' in spam checks whether there is a 'cat' key in the dictionary

'cat' in spam.values() checks whether there is a value 'cat' for one of the keys in spam.

7. What is a shortcut for the following code?  
if 'color' not in spam:  
spam['color'] = 'black'  
=> spam['color'] = 'black' if 'color' not in spam else ''  
  
  
8. How do you "pretty print" dictionary values using which module and function?  
=>Use pprint() to Pretty Print a Dictionary in Python