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

dic\_1 = {} #two empty curly braces

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?

**Lists** are just like the arrays, declared in other languages. Lists need not be homogeneous always which makes it a most powerful tool in Python. A single list may contain DataTypes like Integers, Strings, as well as Objects. Lists are mutable, and hence, they can be altered even after their creation. Lists allow duplicates.

ex: ls = [1,2,”Nag”, 6, [1,2,3],9]

**Dictionary** in Python on the other hand is an unordered collection of Key-value pairs, used to store data values like a hashmap structure, which unlike other Data Types that hold only single value as an element, Dictionary holds key:value pair. Key-value is provided in the dictionary to make it more optimized. Each key-value pair in a Dictionary is separated by a colon :, whereas each key is separated by a ‘comma’. Dictionaries does not allow duplication.

ex: Dict = {“firstname” : “Nagendra”, “secondname” : “Rayabarapu”}

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

it will raise **KeyError.** Since that key is not existing in that dictionary.

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

Both are same. “in” operator with dictionary name checks for keys in dictionary implicitly.

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 —-------- checks for ‘cat’ key in spam dictionary

'cat' in spam.values() —--------- checks for ‘cat’ value 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.setdefault('color', 'black')

Note: The setdefault() method returns the value of the item with the specified key.

If the key does not exist, insert the key, with the specified value

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

Python comes with a built-in library called **pprint** , which stands for pretty-print. Using this library, we can print out more nicely formatted data structures, including dictionaries.

pprint module and PrettyPrinter() method.

Ex:

import pprint

stuff = ['spam', 'eggs', 'lumberjack', 'knights', 'ni']

pp = pprint.PrettyPrinter(indent=4)

pp.pprint(stuff)