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

```
d = {}
```

```
type(d)
```

```
dict
```

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

```
d = {"foo" : 42}
```

```
d.values()
```

```
dict_values([42])
```

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

Ans: The most significant distinction between a dictionary and list is

In a dictionary a value can be accessed through key. Whereas in list the value in the list can be accessed by its index or position.

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

Ans: We will get a key error as foo keyword is not present in spam dictionary

```
spam = {'bar': 100}
```

```
spam
```

```
{'bar': 100}
```

```
spam['foo']
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-9-9b5a94d1de8d> in <module>()
----> 1 spam['foo']

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()?

Ans : 'cat' in spam will become true if 'cat' is available either key or in value.

Whereas 'cat' in spam.keys() will become true if 'cat' is available in key.

```
spam = {"cat" : 56}
```

```
"cat" in spam
```

True

```
'cat' in spam.keys()
```

True

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 will become true if 'cat' is available either key or in value.

Whereas 'cat' in spam.keys() will become true if 'cat' is available in key.

```
spam = {"cat" : 56}
```

```
"cat" in spam
```

True

```
'cat' in spam.keys()
```

True

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

Ans:

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

'black'

```
spam
```

{'cat': 56, 'color': 'black'}

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

Ans: pprint module and pprint() function can be used for pretty print dictionary values.