**Exercise\_No:9**

**Date:21-11-2020**

**Aim:**

**To predict the output of the given program.**

**Program:**

**print ('\n-- dictionaries') **

**d = {'a': 1, 'b': 2}  
print(d['a'])   
del d['a']**

**# iterate  
d = {'a': 1, 'b': 2}  
for key, value in d.items():  
    print (key, ':', value)**

**for key in d:  
    print(key, d[key])**

**# d.fromkeys(iterable[,value=None]) -> dict: with keys from iterable and all same value  
d = d.fromkeys(['a', 'b'], 1)  
print(d)  **

**# d. clear() -> removes all items from d  
d = {'a': 1, 'b': 2}  
d.clear()  
print(d) **

**# d.items() -> list: copy of d's list of (key, item) pairs  
d = {'a': 1, 'b': 2}  
print(d.items()) **

**# d.keys() -> list: copy of d's list of keys  
d = {'a': 1, 'b': 2}  
print(d.keys()) **

**# d.values() -> list: copy of d's list of values  
d = {'a': 1, 'b': 2}  
print(d.values())  **

**# d.get(key,defval) -> value: d[key] if key in d, else defval  
d = {'a': 1, 'b': 2}  
print(d.get("c", 3))    
print(d)  **

**# d. setdefault(key[defval=None]) -> value: if key not in d set d[key]=defval, return d[key]  
d = {'a': 1, 'b': 2}  
print('d.setdefault("c", []) returns ' + str(d.setdefault("c", 3)) + ' d is now ' + str(d))   
**

**#d.pop(key[,defval]) -> value: del key and returns the corresponding value. If key is not found, defval is returned if given, otherwise KeyError is raised  
d = {'a': 1, 'b': 2}  
print ('d.pop("b", 3) returns ' + str(d.pop("b", 3)) + ' d is now ' + str(d))  
**

**print('d.pop("c", 3) returns ' + str (d.pop("c", 3)) + ' d is still ' + str(d))  
**

**# sort on values  
import operator  
x = {1: 4, 5: 4, 4: 4}  
sorted\_x = sorted(x.items(), key=operator. itemgetter(1), reverse=True)  
**

**# max of values  
d = {'a':1000, 'b':3000, 'c': 100}  
print ('key of max value is ' + max(d.keys(), key= (lambda key: d[key])))  
**

**Link:**

[**http://103.53.53.18/mod/hvp/view.php?id=329**](http://103.53.53.18/mod/hvp/view.php?id=329)

**Output:**

**Thus, the output for the given program was obtained.**