Ex.No : 9

Date :

**Aim:**

To write and run a python program for the given quiz.

**Program:**

print('\n—dictionaries')

**-- dictionaries**

d = {'a': 1, 'b': 2}

print(d['a'])

**1**

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)

**{'a': 1, 'b': 1}**

# 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())

**[('a', 1), ('b', 2)]**

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

**['a', 'b']**

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

**[1, 2]**

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

**3**

print(d)

**{'a'**

# 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.setdefault("c", []) returns 3 d is now {'a'**

#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))

**d.pop("b", 3) returns 2 d is now {'a'**

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

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

**print('sorted(x.items(), key=operator.itemgetter(1)) sorts on values ' + str(sorted\_x))**

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

**key of max value is b**

**Result:**

Thus, the python program is executed for the given quiz and the output is obtained.