Important functions of Dictionary:

1. **Dict():**

   To create a dictionary

   d = dict() –> It creates empty dictionary
   d = dict({100:"govardhan", 200:"manikanta"}) –> It creates dictionary with specified elements
   d = dict([(100,"govardhan"), (200,"manikanta"), (300,"kartheek")]) →It creates dictionary with the given list of tuple elements

2. **Len():**

   Returns the number of items in the dictionary

3. **Clear():**

   To remove all elements from the dictionary

4. **Get():**

   To get the value associated with the key

   d.get(key)

   If the key is available then returns the corresponding value otherwise returns None. It won't raise any error.

   d.get(key, defaultvalue)

   If the key is available then returns the corresponding value otherwise returns default value.

   Eg:

   d = {100:"sai", 200:"ram", 300:"raju"}

   d[100] → sai

   d[400]→KeyError:400

   d.get(100) →sai

   d.get(400)→None

   d.get(100,"Guest")→sai

   d.get(400,"Guest")→Guest

5. **Pop():**

d.pop(key)

It removes the entry associated with the specified key and returns the corresponding value. If the specified key is not available then we will get KeyErrror.

Eg:

```
d = {100:"sai", 200:"ravi", 300:"nani"}
d.pop(100)
d → {200:"ravi", 300:"nani"}
d.pop(400) → KeyError:400
```

6. **Popitem():**

It removes an orbitary item.

Eg:

```
d = {100:"nani", 200:"sai", 300:"babu"}
d → {100:"nani", 200:"sai", 300:"babu"}
d.popitem()
d →{100:"nani", 200:"sai"}
```

7. **Keys():**

It returns all keys associated with dictionary

Eg:

```
d = {100:"govardhan", 200:"manikanta", 300:"kartheek"}
d.keys() → dict_keys([100,200,300])
for k in d.keys():
    print(k)
```

➔ 100
➔ 200
➔ 300

8. **Values():**

It returns all values associated with the dictionary

Eg:

```
d = {100:"nani", 200:"vani", 300:"sani"}
d.values() → dict_values(['nani', 'vani', 'sani'])
for v in d.values():
    print(v) →
nani
vani
sani
```

9. Items():

It returns list of tuples representing key-value pairs.

[(k,v), (k,v), (k,v)]

Eg:

```
d = {100:"ravi", 200:"nani", 300:"swami"}
for k,v in d.items():
        print(k,'---',v) →
```

100 --- ravi
200 --- nani
300 --- swami

10. Copy():

To create exactly duplicate dictionary (cloned copy)

d1 = d.copy();

11. Setdefault():

d.setdefault(k,v)

If the key is already available then this function returns the corresponding value. If the key is not available then the specified key-value will be added as new item to the dictionary.

Eg:

d = {100:"nani", 200:"ravi", 300:"swami"}

d.setdefault(400,'pavan')

d →{100:"nani", 200:"ravi", 300:"swami", 400:"pavan"}

d.setdefault(100,'Guest')

d → nani

12. Update():

d.update(x)

All items present in the dictionary x will be added to dictionary d