

Section-6

- Q. Discuss the following list functions: `len()`, `sum()`, `any()`, `all()`, `sorted()`. Explain the following list methods with example: `append()`, `extend()`, `insert()`, `index()`, `sort()`.

50/10
`len()` :-

This list function is used to find the length of any string, set, etc.

`sum()` :-

This function returns a number, the sum of all items in all iterable.

`any()` :-

This function returns True if any item in an iterable are true, otherwise it returns False. If the iterable object is empty, the `any()` function will return False.

`all()` :-

The `all()` function returns True if all items in an iterable are true, otherwise it returns False if the iterable object is empty. The `all()` function also return True.

`sorted()` :-

This function returns a sorted list of the specified iterable object.

`append()` :-

It is a method that allows us to append an item to a list i.e., we can insert an element at the end of the list.

Ex :-

`lst = [5, 8, 10, 13]`

`lst.append(52)`

`print(lst)`

output \rightarrow `[5, 8, 10, 13, 52]`

`extend()` :-

This method adds all the elements of an iterable (list, tuple, string, etc.) to the end of the list.

Ex :-

`lst = [5, 10]`

`lst2 = [15, 20]`

`lst.extend(lst2)`

`print(lst)`

output = `[5, 10, 15, 20]`

`insert()` :-

The list `insert()` method insert an element to the list at the specified index.

Ex :- `lst = [5, 10, 15, 20]`

`lst.insert(2, 25)`

`print(lst)`

output \rightarrow `[5, 10, 25, 15, 20]`