



## Indexing:

Indexing is a phenomenon of passing sub-address to the main memory block. To extract single value or character from collection we will make use of indexing.

### Syntax:

variable [index position]

There are two types of indexing.

1. Positive Indexing: It is a process of passing positive sub-address to the main memory block.

- It should always start with 0 & end with  $n-1$

- $n$  = length of the collection

- The default direction is forward direction.

2. Negative Indexing: It is a process of passing negative sub-address to the main memory block.

- It should always start with  $-1$  to  $-n$

- $n$  = length of the collection

- The default direction is negative direction.

Ex:  $a = 11, 19, 23, 39$

### Memory diagram

-4	-3	-2	-1
11	19	23	39
0	1	2	3

1) 11

$a[0] / a[-4]$

2) 19

$a[1] / a[-3]$

3) 23

$a[2] / a[-2]$

4) 39

$a[3] / a[-1]$