

Section 3

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Ans. 1) An array is a fixed size sequenced collection of the same data type. It is simply grouping of like type data such as list of numbers, list of name.

Types of Array :-

- one-dimensional array
- Two dimensional array
- multidimensional array.

Declaration of 1-dimensional array :- A list of items can be given one variable name using only one subscript and such a variable is called a single-subscripted variable or one-dimensional array.

Like any other variables array must be declared before they are used. The general form of array declaration is.

Syntax - $\langle \text{data type} \rangle \langle \text{array name} \rangle$
[Size of array];

Initialization of 1-dimensional Array :-

After an array is declared its element must be initialized. otherwise they will contain "garbage".

An array can be initialized at either of the following stage.

- At Compile time.
- At run time.

Difference in Pointer and array of character array.

- **Pointer** = when variable are declared memory is allocated to each variable. C provides the data manipulation with address of variable therefore execution time is reduced. such concept is possible with special data types called pointers. A pointer is a variable which holds the address of another variable or identifier. This allows indirect access data.
- **Array** = An array is a fixed sized sequence collection of the same data type. It is simply grouping of like type data such as list of numbers.
- **Character array** = WAP to find the largest and smallest element in array.