12.

These are the Most Commonly Used Format Specifiers in C language.

%d (Decimal Integer) Format Specifier.

%c (Character) Format Specifier.

%f (Floating Point) Format Specifier.

%s (String) Format Specifiers

16.

We can declare array in the C language in the following way.

1. Data\_type array\_name [array\_size];

Int marks [5];

Here, int is the data type, marks are the array name, and 5 is the array size.

17.

In 1D array, we don’t need to specify the size of the array if the declaration and initialization are being done simultaneously. However, this will not work in 2D arrays. We will have to define at least the second dimension of the array. The two-dimensional array can be declared and initialized in the following way.

1. Int arr[4][3] = {{1,2,3},{2,3,4},{3,4,5},{4,5,6}};

18.

Difference Betweens One-Dimensional and Two-Dimensional Array

| **Parameters** | **One-Dimensional Array** | **Two-Dimensional Array** |
| --- | --- | --- |
| Basics | A one-dimensional array stores a single list of various elements having a similar data type. | A two-dimensional array stores an *array of various arrays,* or a *list of various lists*, or an *array of various one-dimensional arrays*. |
| Representation | It represents multiple data items in the form of a list. | It represents multiple data items in the form of a table that contains columns and rows. |
| Dimensions | It has only one dimension. | It has a total of two dimensions. |
| Parameters of Receiving | One can easily receive it in a pointer, an unsized array, or a sized array. | The parameters that receive it must define an array’s rightmost dimension. |
| Total Size (in terms of Bytes) | Total number of Bytes = The size of array x the size of array variable or datatype. | Total number of Bytes = The size of array visible or datatype x the size of second index x the size of the first index. |