Array objectives

SLNO	QUESTIONS
1	**What is the relation between arrays and pointers?**
	Array name itself is a pointer which refers the initial address of an array.
2	**What is major difference between strcpy and strncpy?**
	Strcpy copies the entire string with null character, but strncpy copies only the specified number of characters and does not copy the null character.
3	**What is the purpose of double-dimensional array?**
	Double-dimensional array is suitable to implement the non-linear data structure, such as graph and tree.
4	**Which of the two is a faster searching mechanism—"binary search" or "linear search"?**
	Linear searching is faster than binary search, if both are implemented using a linked list. But binary searching is faster than linear searching if both are implemented using an array.
5	**Traversing double-dimensional array using row order or column order, which is one is the faster mechanism?**
	Row order traversal of double-dimensional is faster than column order traversal, because row order traversal is sequential traversal, whereas column order traversal is not sequential type
6	**If base address of a double-dimensional array is given, how do we get the address of a particular element in an array?**
	(*Note*: If int*[5][5], &*[0][0] is given as 500, what will be the address of &*[3[4]) To get the address of a particular element in a double dimensional array, the following formula is used. Address = base address + (row number * column size + column number) * size of the array element.
7	**What will be size of any array in C?**
	The size of an array depends on the size of the segment divided by the size of the array element.
8	**What is the application of an array?**
	Application of an array is in implementing different data structures, such as stack, queue, tree, graph and searching, sorting.
9	**What is the difference between character array and string?**
	String is a character array terminated with null character '\0'. So, a string is a character array but a character array is not string.
10	**What is the difference between char s[] and char *s?**
	Char s[] is an array. When a string is assigned to 's', the size is automatically taken by the compiler looking at string size. But in char *s, 's' is a pointer. When a string is assigned to 's' the size does not depend on the string. Its size is fixed which is 4 bytes in GCC and 2 bytes in Turboc. That's why char s[] will be dereference, but char *s cannot be dereference.
11	**How to add between two numbers without using arithmetic operators?**
	main() { char *a=5,b=6; printf("%d ", &a[b]); }