

### **Assignment-1 (Pointer & Array)**

1. Write a program to divide a one dimensional array(having 40 elements) to 5 two dimensional array of 2X4 each. Pass the 2<sup>nd</sup> and 4<sup>th</sup> two dimensional array to a function which will swap these two 2-D array in original one dimensional array.
2. Write a program that will pass a two dimensional array to a function. The called function has to return middle row/s to the main function.
3. Let us assume a two dimensional array consists of different numbers and each number is repeated equal number of times in this array. You need to write a function which will rearrange the array where each number will contiguously present in that array. You have to create a pointer which will pointing to a row having n number of elements, where n is the number of times each number gets repeated in the original array. Using this pointer, you need to display the modified array.

Original array

2,3,1,4,  
3,1,2,2,  
1,3,4,4

New array

1,1,1,2  
,2,2,3,3  
,3,4,4,4

For this example, you have to create a pointer which will point to 3 element row. Using this pointer, you have to display this new array.