**Dr. Mahalingam College of Engineering and Technology, Pollachi-3**

**(An Autonomous Institution affiliated to Anna University)**

**Name of Programme: B.E Computer Science and Engineering**

**Arrays Date:14/12/2017**

1. Write a function rotate (ar[], d, n) that rotates arr[] of size n by d elements.

Examples:  
Array

Rotation of the above array by 2 will make array

ArrayRotation1

2. Given an array, cyclically rotate the array clockwise by one.

Examples:

Input: arr[] = {1, 2, 3, 4, 5}

Output: arr[] = {5, 1, 2, 3, 4}

3. An array contains both positive and negative numbers in random order. Rearrange the array elements so that positive and negative numbers are placed alternatively. Number of positive and negative numbers need not be equal. If there are more positive numbers they appear at the end of the array. If there are more negative numbers, they too appear in the end of the array.

For example,

Input array is [-1, 2, -3, 4, 5, 6, -7, 8, 9]

Output should be [9, -7, 8, -3, 5, -1, 2, 4, 6]

# 4. Write a program to reverse an array or string

Examples:

Input : arr[] = {1, 2, 3}

Output : arr[] = {3, 2, 1}

Input : arr[] = {4, 5, 1, 2}

Output : arr[] = {2, 1, 5, 4}

# 5 Rearrange positive and negative numbers with constant extra space

**Input:**  [12 11 -13 -5 6 -7 5 -3 -6]

**Output:** [-13 -5 -7 -3 -6 12 11 6 5]