Week 9- Day 4 : Coding Challenge

(Maximum marks -15)

Q-1) Find whether an array is subset of another array:(5 marks)

Examples:

***Input**: arr1[] = {11, 1, 13, 21, 3, 7}, arr2[] = {11, 3, 7, 1}*

***Output**: arr2[] is a subset of arr1[]*

***Input**: arr1[] = {1, 2, 3, 4, 5, 6}, arr2[] = {1, 2, 4}*

***Output**: arr2[] is a subset of arr1[]*

***Input**: arr1[] = {10, 5, 2, 23, 19}, arr2[] = {19, 5, 3}*

***Output**: arr2[] is not a subset of arr1[]*

Q-2)Sort an array of 0s, 1s and 2s:(5 marks)

Given an array **A[]** consisting 0s, 1s and 2s. The task is to write a function that sorts the given array. The functions should put all 0s first, then all 1s and all 2s in last.

Examples:

Input: {0, 1, 2, 0, 1, 2}
Output: {0, 0, 1, 1, 2, 2}

Input: {0, 1, 1, 0, 1, 2, 1, 2, 0, 0, 0, 1}
Output: {0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 2, 2}

Q-3) Sort an array in wave form :(5 marks)

Given an unsorted array of integers, sort the array into a wave like array. An array ‘arr[0..n-1]’ is sorted in wave form if arr[0] >= arr[1] <= arr[2] >= arr[3] <= arr[4] >= …..

Examples:

Input: arr[] = {10, 5, 6, 3, 2, 20, 100, 80}
Output: arr[] = {10, 5, 6, 2, 20, 3, 100, 80} OR
{20, 5, 10, 2, 80, 6, 100, 3} OR
any other array that is in wave form

Marks distribution:
Question 1,2 and 3 carry 5 marks each.