

Assembly Language Programming D
FAST-NU, Lahore, Spring 2018

Homework 2

Due Wednesday February 14 11:55 P.M.

Marked out of 50 points.

Write code for the following problems. Submit soft copies via SLATE.

- 1) Declare three arrays arr1, arr2 and arr3, each of size stored in a variable called size. Write code that adds the corresponding numbers in arr1 and arr2 and stores their sums in arr3.
- 2) Declare a byte array arr1 (each of its elements is a byte) of size stored in a word variable called size. Write code to rotate the elements of arr1 toward right once.
- 3) Create a sorted array of integers arr1 and store its size in a variable called size. Write code to find the number which repeats the most number of times in arr1. Store this number in a variable called num1 and store the number of times it repeats in a variable called count1.
- 4) Create two arrays arr1 and arr2 whose each element is a byte. These arrays are of equal size, stored in a variable called size. Both arr1 and arr2 represent numbers of size-many digits – i.e. the entire array is considered a single number with the elements of the array being its digits. Write code to add these two numbers byte by byte to produce the sum in a third array called arr3. Be careful that while adding two bytes the sum may generate a carry and this needs to be carried to the next addition. Look into the instruction: ADC for this purpose. If the overall addition generates an end carry set a flag variable called flag1, otherwise clear it to zero.

THE END