

## UCS 2201 Fundamentals and Practice of Software Development

### T3: Test on A4 – Batch 2

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Learning Outcome: You will be able to implement functions in C with the following features:

- a) using one-dimensional and two-dimensional arrays
- b) passing arrays to a function

You will be able to adapt to the following best practices

- Modular programming
- To learn to develop code incrementally

[illegible]

Solve the following problems by implementing in C. (CO7, K3, 1.3.1, 1.4.1, 2.1.2, 2.1.3, 2.4.3, 3.2.2, 3.4.3, 4.1.2, 4.2.1, 5.2.2, 13.2.1, 13.3.2, 13.4.2, 14.2.1, 14.2.2)

1. Given a sorted array of 0's and 1's, write a function in C to have all the ones in the front followed by all the zeros.

Eg. Input :  $A[] = \{0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1\}$

Output :  $B[] = \{1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0\}$

2. Given an unsorted array of 0's and 1's, write a C function that modifies the input array by shifting all the ones to the end

Eg. Input :  $A[] = \{1, 1, 0, 1, 1, 0, 0, 0, 1, 1, 0, 1\}$

Output :      A[ ] = {0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1}

3.

\*\*\*\*\* ALL THE BEST \*\*\*\*\*