

UCS 2201 Fundamentals and Practice of Software Development

T2: Test on A3 – Batch 2

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

- input parameters (Call by value)
- input-output parameters (Call by reference)
- recursive functions

You will be able to adapt to the following best practices

- To declare the functions explicitly
- To minimize the usage of global variables
- 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, 3.2.2 3.4.3, 4.1.2, 4.2.1, 5.2.2, 13.3.1, 13.3.2, 14.2.1, 14.2.2)

Write a function in C that takes an integer and returns the sum of its individual digits as a single digit number.

Eg. Input – 368

Output – 8 ($3+6+8=17$; $1+7=8$)

Modify it to take a second parameter telling how many digits in the sum, and return the sum accordingly

Eg. Input – 9988, 2

Output – 34 (9+9+8+8=34)
