**Microprocessor and Computer Architecture Laboratory**

**UE19CS256**

**4th Semester, Academic Year 2020-21**

Date:

|  |  |  |
| --- | --- | --- |
| Name: | SRN: | Section |

Week#\_\_\_\_1\_\_\_\_\_\_\_Program Number: \_\_\_\_1\_\_\_

Title of the Program

**Write an ALP using ARM instruction set to add and subtract two 32 bit numbers .Both numbers are in registers.**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

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Week#\_\_\_\_1\_\_\_\_\_\_\_ Program Number: \_\_\_\_2\_\_\_

Title of the Program

**Write an ALP to demonstrate logical operations. All operands are in registers.**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

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Week#\_\_\_\_1\_\_\_\_\_\_\_ Program Number: \_\_\_\_3\_\_\_

Title of the Program

**Write an ALP to add 5 numbers where values are present in registers.**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

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Week#\_\_\_\_1\_\_\_\_\_\_\_ Program Number: \_\_\_\_4\_\_\_

Title of the Program

**Write an ALP using ARM instruction set to check if a number stored in a register is even or odd. If even, store 00 in R0, else store FF in R0**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

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Week#\_\_\_\_1\_\_\_\_\_\_\_ Program Number: \_\_\_\_5\_\_\_

Title of the Program

**Write an ALP to compare the value of R0 and R1, add if R0 = R1, else subtract.**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

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Week#\_\_\_\_1\_\_\_\_\_\_\_ Program Number: \_\_\_\_6\_\_\_

Title of the Program

**Based on the value of the number in R0, Write an ALP to store 1 in R2 if R0 is zero, Store 2 in R2 if R0 is positive, Store 3 in R2 if R0 is negative.**

1. ARM Assembly Code for each program
2. Final Output Screen Shot (Register Window, Output window)

The output should be verified with 2 test cases

(one example shown in class, one example of own choice)

**Disclaimer:**

* The programs and output submitted is duly written, verified and executed by me.
* I have not copied from any of my peers nor from the external resource such as internet.
* If found plagiarized, I will abide with the disciplinary action of the University.

Signature:

Name:

SRN:

Section:

Date: