

## Laboratory 2 Session 1

### Arithmetic/Logic Instructions

**Note:** You are not allowed to use lookup tables in this assignment. Usage of embedded data in any form to retrieve results will result in 0 from that corresponding part.

### Assignment

You will implement multiplication operation for 3 digit numbers in this assignment.

- Type 1 to 3 digit number  $x_1 \in [0, 999]$  using keypad and press \*.
- Type the second number  $x_2 \in [0, 999]$  and press # to finalize input.
- Use the second line of the LCD to display the result.
- Your program should run indefinitely and accept new input after the calculation is completed. You may not assert a reset signal before loading next value.
- You should prepare your display and registers for the next operation after a new input.

**Example:**  $x_1 = 180$ ,  $x_2 = 63$

Keystrokes 180\*63#

Display first line 180x63=

Display second line 11340