

Digital Computer Design

1. Modify the single-cycle ARM processor to implement one of the following instructions. See [ARM-REFERENCE](#) for a definition of the instructions. Name any new control signals. Show the changes to the Main Decoder and ALU Decoder. Describe any other changes that are required.

- (a) TST
- (b) LSL
- (c) CMN
- (d) ADC

2. Repeat Question 1 for the following ARM instructions.

- (a) EOR
- (b) LSR
- (c) TEQ
- (d) RSB