

La Trobe University
Department of Electronic Engineering
ELE22MIC - Microprocessors
Assignment 3, 2006

Question 1. Decimal String to Integer Conversion Assembly Code

Write a 68HC11 assembly language subroutine to convert a five ASCII-character, plus NULL terminator string, to a 16-bit integer. A pointer to the source string is passed in the index register, X. The converted value should be returned in Accumulator D.

Question 2. Assembly code Sort

Write assembly language program to sort a block of byte data into ascending order (increasing). Address \$0000 holds the block length in bytes (from 1..255) and \$0002 holds the address of the start of the block (from 0..65535).

Question 3. Converting pseudo code to Assembly code

Write a 68HC11 assembly language code equivalent to the following C code.

```
for (count = 100; count != 0; count-- )  
    doSomething();
```

Attach to the front of your assignment

Name: _____ Student No _____
Subject: ELE22MIC - Microprocessors Assignment: 3
Lecturer: Mr Paul Main Date Due: Tuesday 31th Sep 2006, 9am

DECLARATION

I certify that the attached assignment is my original work and that no part of it has been copied or reproduced from any other person's work without acknowledgment.

Signed: _____ Date: _____