Examples of SIC and SIC/XE Programs

Example 1: A simple example to show the assembly language syntax.

SIC Version:

```
LDA    FIVE
STA    ALPHA
LDCH   CHARZ
STCH   C1
.
.
ALPHA  RESW  1  Uninitialized word.
FIVE   WORD  5  Word initialized to 5.
CHARZ  BYTE  C’Z’ Byte initialized to ’Z’.
C1     RESB  1  Uninitialized byte.
```

SIC/XE Version:

```
LDA    #5   Immediate operand.
STA    ALPHA
LDA    #90  ASCII code for ’Z’.
STCH   C1
.
.
ALPHA  RESW  1  Uninitialized word.
C1     RESB  1  Uninitialized byte.
```

Example 2: To copy a 11 byte string from one location to another. The program for SIC is given below. (The corresponding program for SIC/XE is left as an exercise.)

SIC Version:

```
LDX    ZERO  Initializes X to zero.
MOVECH LDCH   STR1,X  X specifies indexing.
        STCH   STR2,X
        TIX    ELEVEN  Increments X and compares with 11.
        JLT    MOVECH

STR1   BYTE  C’TEST STRING’  String constant.
STR2   RESB  11
ZERO   WORD  0
ELEVEN WORD  11
```