2. Write a sequence of instructions for SIC/XE to get ALPHA equal to 4*BETA−9. Assume that ALPHA and BETA are defined as in Fig.1.3(b). Use immediate addressing for the constants.

```
LDS   #4
LDA   BETA
MULR S A
LDS   #9
SUB   S
STA   ALPHA
```

3. Write a sequence of instructions for SIC to get ALPHA equal to the integer portion of BETA ÷ GAMMA. Assume that ALPHA and BETA are defined as in Fig.1.3(a).

```
LDA   BETA
DIV   GAMMA
STA
```

10. Suppose that RECORD contains a 100−byte record, as in Fig.1.7(a). Write a subroutine for SIC that will write this record onto device 05.

```
JSUB WRITE

WRITE       LDX     ZERO
WLOOP       TD      INDEV
            JEQ     WLOOP
            LDCH    RECORD, X
            WD      INDEV
            TIX     K100
            JLT     WLOOP
            RSUB
```

11. Suppose that RECORD contains a 100-byte record, as in Fig. 1.7(b). Write a subroutine for SIC/XE that will write this record onto device 05. Use immediate addressing and register-to-register instructions to make the subroutine as efficient as possible.

```
JUB   WRITE

WRITE        LDX     #0
             LDT     #100
WLOOP         TD     INDEV
             JEQ     WLOOP
             LDCH    RECORD, X
             WD      INDEV
      TIXR   T
      JLT    WLOOP
      RSUB
```