Date : 13-02-25	Exp. Title	Page No.
Exp. No. 02		04

Write an ALP to find the sum of first 10 integers numbers

```
AREA    ADDITION , CODE , READONLY
START
        MOV  R5,#10
        MOV  R0,#0
        MOV  R1,#1
loop    ADD  R0, R0, R1
        ADD  R1, R1, #1
        SUB  R5, R5, #1
        cmp  R5,#0
        BNE  loop
        LDR  R4,= RESULT
        STR  R0, [R4]
xss     B    xss
AREA    DATA 2 , DATA , READWRITE
RESULT  DCD  0CD
        END
```

Date : 27-02-25	Exp. Title	Page No.
Exp. No. 04		06

Write an ALP to add an away of 16-bit numbers and store the 32-bit result in internal RAM

```
AREA    ADDITION, CODE, READONLY
START
        MOV   R5, #3
        MOV   R0, #0
        LDR   R1 = VALUE1
loop    LDR   R2, [R1], #2
        LDR   R3, MASK
        AND   R2, R2, R3
        ADD   R0, R0, R2
        SUBS  R5, R5, #1
        CMP   R5, #0
        BNE   loop
        LDR   R4, = RESULT
        STR   R0, [R4]
xxx     B     xxx
MASK    DCD   0X0000FFFF
        DCW   0X1111, 0X2222, 0X4444
AREA    DATA2, DATA, READONLY WRITE
RESULT  DCD   0X0
        END
```

Date : 06-03-25 | Exp. Title | Page No. 07

Exp. No. 05

Write an ALP to integer generate the fibonacci series upto the given number n

```
AREA RIBN, CODE, READONLY
    MOV R0, #10;
    MOV R1, #0;
    MOV R2, #1;
    LDR R5, = RESULT-SERIES
    STR R1, [R5], #4
    STR R2, [R5], #4
loop ADD R3, R1, R2
    STR R3, [R5], #4
    MOV R1, R2
    MOV R2, R3
    SUBS R0, R0, #1
    BNE loop
DONE B DONE
    AREA DATA1, DATA, READONLY WRITE
RESULT-SERIES DCW 0X0000
    END
```

Date : 20-03-25	Exp. Title	Page No.
Exp. No. 06		08

Write an ALP to find the square of a number (1 to 10) using look-up table

```
AREA    SQUARE, CODE, READONLY
        LDR   R0, = TABLE1
        LDR   R1, = 7
        MOV   R1, R1, LSL #0X2
        ADD   R0, R0, R1
        LDR   R3, [R0]
xss     B     xss
TABLE1  DCD   0X00000000
        DCD   0X00000001
        DCD   0X00000004
        DCD   0X00000009
        DCD   0X00000010
        DCD   0X00000019
        DCD   0X00000024
        DCD   0X00000031
        DCD   0X00000040
        DCD   0X00000051
        DCD   0X00000064;
AREA    DATA1, DATA, READWRITE.
RESULT  DCD   0X00000000
        END
```