3A)PERFORM LOGICAL OPERATIONS

```
      AREA MYCODE,CODE,READONLY
ENTRY
      EXPORT START
START
      LDR R0, =0X00000000
      LDR R1, =0X00000005
      LDR R2, =0X0000000F
      AND R0,R1,R2
      ORR R3,R1,R2
      EOR R4,R1,R2
      BIC R7,R2
      BIC R5, R2,R1
STOP B STOP
      END
```

3B)SWAPPING REG CONTENTS(LOG OPR)

```
      AREA PROG4, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0,=0XF631024C
      LDR R1,=0X17539ABD
      EOR R0, R0, R1
      EOR R1, R0, R1
      EOR R0, R0, R1
STOP B STOP
      END
```

4AB)HEX TO ASCII|ASCII TO HEX

```
      AREA DATA1, DATA, READONLY
DIGIT DCD 0X80
      AREA DATA2, DATA, READWRITE
RESULT DCD 0
      AREA PROGRAM, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0, DIGIT
      LDR R1, =RESULT
      CMP R0, #0X3A
      BLT ADD_0
      SUB R0, R0,#07
ADD_0 SUB R0, R0,#"0"
      STR R0, [R1]
STOP B STOP
      END
```

5A)SHIFT & ROTATE

```
      AREA ROTATESHIFT, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0, =0XF0000001
      LSLS R1, R0, #1
      ASRS R1, R0, #1
      RORS R2, R0, #1
      RRXS R3, R0
STOP B STOP
      END
```

5B)SWAPPING REG CONTENT USING ROTATE INST

```
      AREA PROG, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0,=0XF631024C
      ROR R1,R0,#16
      LDR R2,=0X20000000
      STRH R1,[R2]
      LDRH R3,[R2]
      ROR R4,R3,#16
      MOV R5,#2
      STR R4,[R2,R5]
STOP B STOP
      END
```