MICROPROCESSORS PRACTICAL

ASCII TO BINARY

```
.MODEL SMALL
.DATA
     MESG DB 10,13,"ENTER A NO.: $"
     RESULT DB 10,13,"RESULT IS: $"
.CODE
.STARTUP
     MOV DX,OFFSET MESG; input msg
     MOV AH,09H
     INT 21H
     MOV AH,01H
     INT 21H
     MOV BL,AL
     MOV DX,OFFSET RESULT ;output msg
     MOV AH,09H
     INT 21H
     MOV CL,08H
     MOV AH,00H
     MOV AL,BL
     L1: SHL AL, 01H
        MOV BL,AL
        MOV AL,00H
        ADC AL,30H
        MOV DL,AL
        MOV AH,02H
        INT 21H
        MOV AL,BL
     LOOP L1
.EXIT
END
```

OUTPUT

C:NTASM>atob

enter a no. : 5

RESULT IS : 00110101

BINARY TO ASCII

```
.MODEL SMALL
.DATA
    INPUT DB 10,13,"ENTER BINARY NO: $"
    OUTPUT DB 10,13,"THE ASCII CHARACTER IS: $"
    ARR DB?
.CODE
.STARTUP
    MOV AH,09H
    MOV DX,OFFSET INPUT ;input msg
    INT 21H
    MOV BL, 00H
    MOV CL,08H
    INPUT1: MOV AH,01H
        INT 21H
        SUB AL,30H
        SHL BL,1
        ADD BL,AL
    LOOP INPUT1
    MOV AH,09H
    LEA DX,OUTPUT ;output msg
    INT 21H
    MOV AH,02H
    MOV DL,BL
                 ; display the ascii value
    INT 21H
.EXIT
END
```

OUTPUT

```
C:\TASM>btoa

ENTER BINARY NO : 10101011

THE ASCII CHARACTER IS : ½
C:\TASM>btoa

ENTER BINARY NO : 11101111

THE ASCII CHARACTER IS : n
C:\TASM>btoa

ENTER BINARY NO : 00110101

THE ASCII CHARACTER IS : 5
```