Binary Search :-

```asm
.MODEL SMALL
; MACRO TO DISPLAY THE MESSAGE
DISPLAY MACRO MSG
        LEA DX, MSG
        MOV AH, 09H
        INT 21H
ENDM

.DATA
LIST DB   01H, 05H, 07H, 10H, 12H, 14H
NUBER EQU ($-LIST)
KEY DB 012H
MSG1 DB  0DH, 0AH, " ELEMENT FOUND IN LIST $"
MSG2 DB  0DH, 0AH, " SEARCH FAILED $"
.CODE

.CODE
START : MOV AX, @DATA
        MOV DS, AX
        MOV CH, NUBER-1 ; High val
        MOV CL, 00H     ; low val

AGAIN : MOV SI, OFFSET LIST
        XOR AX, AX
        CMP CL, CH
        JE NEXT
        JNC FAILED
```

```asm
NEXT:    MOV  AL, CL
         ADD  AL, CH
         SHR  AL, 01H
         MOV  BL, AL
         XOR  AH, AH
         MOV  BP, AX
         MOV  AL, DS : [BP][SI]
         CMP  AL, KEY    ; compare key &
                                  A[I]
         JE   SUCCESS    ; If equal display message
         JC   INLOW
         MOV  CH, BL     ; IF KEY>A[I] shift
         DEC  CH                        high
         JMP  AGAIN
INLOW :  MOV  CL, BL     ; If KEY <A[I]
                               shift low
         INC  CL
         JMP  AGAIN
SUCCESS : DISPLAY MSG 1
          JMP  FINAL
FAILED :  DISPLAY MSG 2
FINAL :   MOV AH, 4CH
          INT 21H
         END START
```