

LAB-1

Binary SEARCH

• MODEL SMALL

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

• DATA

LIST DB 01H, 05H, 07H, 10H, 12H, 14H

NUMBER EQU (LIST - LIST)

KEY DB 012H

MSG1 DB 0DH, 0AH,

• CODE

START: MOV AX, @DATA

MOV DS, AX

MOV CH, NUMBER - 1

MOV CL, 00H

AGAIN: MOV SI, OFFSET LIST

XOR AX, AX

CMP CL, CH

JE NEXT

JNC FAILED

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

JE SUCCESS

JC INCLW

MOV CH, BL

DEC CH

JMP AGAIN

INCLW : MOV CL, BL

INC CL

JMP AGAIN

SUCCESS : DISPLAY MSG1

JMP FINAL

FAILED : DISPLAY MSG2

FINAL : MOV AH, 4CH

INT 21H

END START