

Part-1

Ans 1) b)

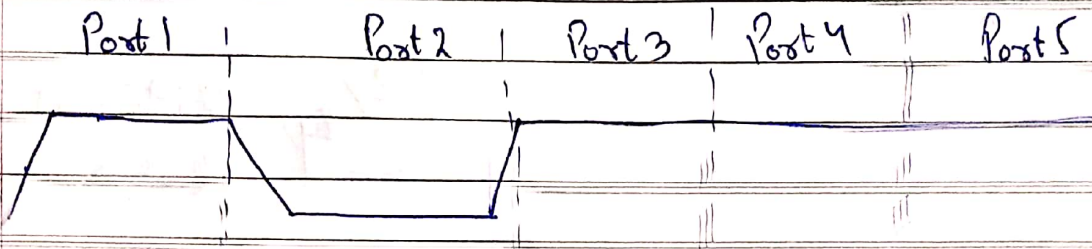
BOH = 1011 1111

FFH = 1111 1111

EOH = 1111 0000

Port 1 = MVI A, BOH

SIM and so on for Port 2; 3



a) KeyCheck: CALL KeyBoard

CPI 0AH

JNZ RELAY

LXI H, 0020H ; location RST 5

EI

CALL RST5 ; call 0020H on call H

JMP KeyCheck

RELAY : CPI 00H

JNZ KeyCheck

POP H

POP D

POP B

POP PSW

RET

MVI A, FFH

2/2

VIRGSON
Lisa

~~PER~~ RST 5: MVI D, F0H
Rotate: MOV A, D
RLC RLC

d) LXI H, 2000H
MOV A, M
MOV C, A
INX H
MOV B, M
MOV D, B
ADD B
SUI
JNC Loop1
MOV A, C

RSTS: MVI D, FDH

Rotate: MOV D, D

RLC

RLC

ADJ OSH

MOV B, A

MOV A, D

SUI OSH

ORA B

MOV B, A

MOV A, C

ANA D

ORA B

STA 4500H

JMP Escape

Loop1: MOV A, C

ADJ OSH

MOV B, A

MOV A, D

SUI OSH

ANA B

MOV B, A

MOV A, C

SUB D

ORA B

STA 4500H

Escape: HLT

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c) LDA 2000H : P
    MOV B, A    B = P
    LDA 2001H : Q
    MOV C, A
    ADD B
    SUI 64H
    JC : LOOP1
    MOV A, B    A = P
    ADI 5
    MOV H, A : H = (P+5)
    MOV A, C : A = Q
    RBT 5
    ANA H
    MOV L, A    L = (P+5) AND (Q-5)
    MOV A, B : A = P
    SUB C : A = P - Q
    ORA L
    MOV A, L
    STA 4500H

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LOOP1

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    MOV A, B
    ANA C
    MOV H, A
    MOV A, B : A = P
    ADI 5 : A = P + 5
    MOV A, C : A = Q
    SBI 5 : A = Q - 5
    ORA L : A = (P+5) OR (Q-5)
    ORA H
    MOV A, H
    STA 4500H

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