

LDA #7E

Q5

INCA

Q6

JMP 22

Q5

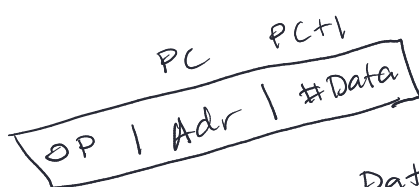
FO
03
08
E1
10
24
FA
33
22

—

—

38
10
24
F9
21
23

$2^3 = 38$
 $2^4 = 10$
 $2^5 = 24$
 $2^6 = 20$
 $2^7 = 21$
 $2^8 = 23$



1. $Adr \rightarrow TA; PC++$
2. $Data \rightarrow M(TA); PC++$

$Data \rightarrow M(Adr)$

Q4 ($Q_4 \cdot I_{DF}$) $M(PC) \rightarrow TA; PC+1 \rightarrow PC, LD_{TA}; INC_{PC}; MR,$
 Q5 ($Q_5 \cdot I_{DF}$) $M(PC) \rightarrow R; PC+1 \rightarrow PC, LD_R; INC_{PC}; MR; f2,$
 Q6 ($Q_6 \cdot I_{DF}$) $R \rightarrow M(TA) \quad OE_R; g_{14}; MW,$

05
07
EF
20
02
21
21

20

05
07
EF
20
02
21
21

20

| Op | Adr | Data |
|----|-----|------|
|----|-----|------|

Q4 $(Q4 \cdot I_{EF})$ $M(PC) \xrightarrow{M(Adr)} R; PC+1 \rightarrow PC,$ $LD_R; INC_{PC}; f_3; f_0; MR,$

Q5 $(Q5 \cdot I_{EF})$ $M(PC) \xrightarrow{(\#Data)} T; PC+1 \rightarrow PC,$ $MR; LD_T; INC_{PC},$

Q6 $(Q6 \cdot I_{EF})$ $A-T; ALU(Z) \rightarrow CC$ $f_3; f_2; OE_A; g_0; LD_{CC};$
 $g_1; g_8; g_5; g_4; g_3; g_2$

Q7 $(Q7 \cdot I_{EF})$ $\text{if } (Z=1)$ $OE_R; LD_{SP} \cdot Z$
 $M(R) \rightarrow PC$

