

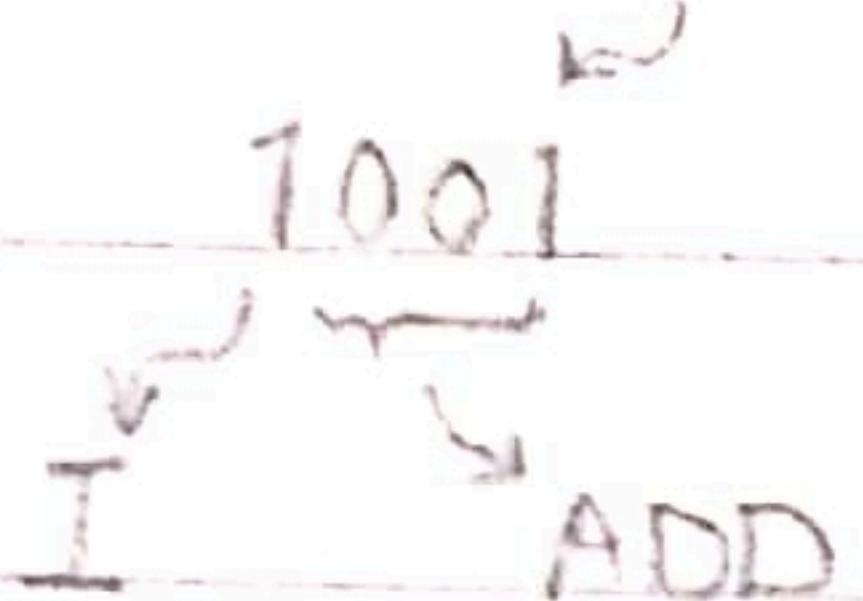
7991

98411387 Viji

$$\textcircled{1} \quad M[9AC] = 8F9F, \quad M[32E] = 09AC, \quad M[3AF] = 932E$$

$$AC = FEC3, \quad PC = 3AF$$

$$\text{A) } 932E \quad I \text{ ADD } 32E$$



$$\text{B) } AC = FEC3 \rightarrow \text{ADD} : 0E62 \rightarrow E = 7$$

$$DR = 8F9F$$

$$1 \quad 0$$

D3

$$\text{C) } PC = 3AF + 1 = 3B0 \quad AC = 0E62$$

$$AR = 9AC, \quad DR = 8F9F, \quad SC = 0000$$

$$IR = 932E, \quad E = 1, \quad I = 1$$

(2)

$$\text{XOR: } \left\{ \begin{array}{l} DR \leftarrow M[EA] \\ AC \leftarrow AC \oplus DR, SC \leftarrow 0 \end{array} \right. \quad \text{D.T}_4 \quad \text{D.T}_5$$

$$\text{ADM: } \left\{ \begin{array}{l} DR \leftarrow M[EA] \end{array} \right. \quad \text{D.T}_4$$

$$\left. \begin{array}{l} DR \leftarrow AC, AC \leftarrow AC + DR \end{array} \right. \quad \text{D.T}_5$$

$$\left. \begin{array}{l} M[EA] \leftarrow AC, AC \leftarrow DR, SC \leftarrow 0 \end{array} \right. \quad \text{D.T}_6$$

(2)

SUB:  $(AC - M[EA]) - AC + M[EA] + 1)$ 

$$\left\{ \begin{array}{l} DR \leftarrow M[EA] \\ DR \leftarrow AC, AC \leftarrow DR \\ AC \leftarrow AC \\ AC \leftarrow AC + 1 \\ AC \leftarrow AC + DR, SC \leftarrow 0 \end{array} \right. \quad \begin{array}{l} D_2 T_4 \\ D_2 T_5 \\ D_2 T_6 \\ D_2 T_7 \\ D_2 T_8 \end{array}$$
XCH:  $\left\{ \begin{array}{l} DR \leftarrow M[EA] \\ M[EA] \leftarrow AC, AC \leftarrow DR, SC \leftarrow 0 \end{array} \right. \quad \begin{array}{l} D_3 T_4 \\ D_3 T_5 \end{array}$ SEQ:  $\left\{ \begin{array}{l} DR \leftarrow M[EA] \\ TR \leftarrow AC, AC \leftarrow AC \oplus DR \\ \text{If } AC_1 = 0 \text{ then } PC \leftarrow PC + 1, AC \leftarrow TR, SC \leftarrow 0 \end{array} \right. \quad \begin{array}{l} D_4 T_4 \\ D_4 T_5 \\ D_4 T_6 \end{array}$ BPA: If  $AC = 0 \wedge AC(15) = 0$  then  $PC \leftarrow AR, SC \leftarrow 0 \quad D_5 T_4$ 

(3)

A)



load inc clear

B)

$CTR \leftarrow M[AD]$

$CTR \leftarrow M[EAR], SC \leftarrow 0$

$P_6 T_4$


C)

$D_7 I' T_8 B_{12} : CTR \leftarrow CTR + 1$

$D_7 I' T_4 B_{12} : \text{if } CTR = 0 \text{ then } PC \leftarrow PC + 1, SC \leftarrow 0$

يُفْعَلُ (ICSZ) كِبِيرٌ (ISZ) لِكِبِيرٍ مُفْعَلٍ بِكِبِيرٍ  
ISZ، كِبِيرٌ مُفْعَلٍ بِكِبِيرٍ تُفْعَلُ كِبِيرٌ وَكِبِيرٌ  
كِبِيرٌ كِبِيرٌ كِبِيرٌ كِبِيرٌ كِبِيرٌ كِبِيرٌ كِبِيرٌ كِبِيرٌ

④



⑤

$X T_3 : F \leftarrow 0$

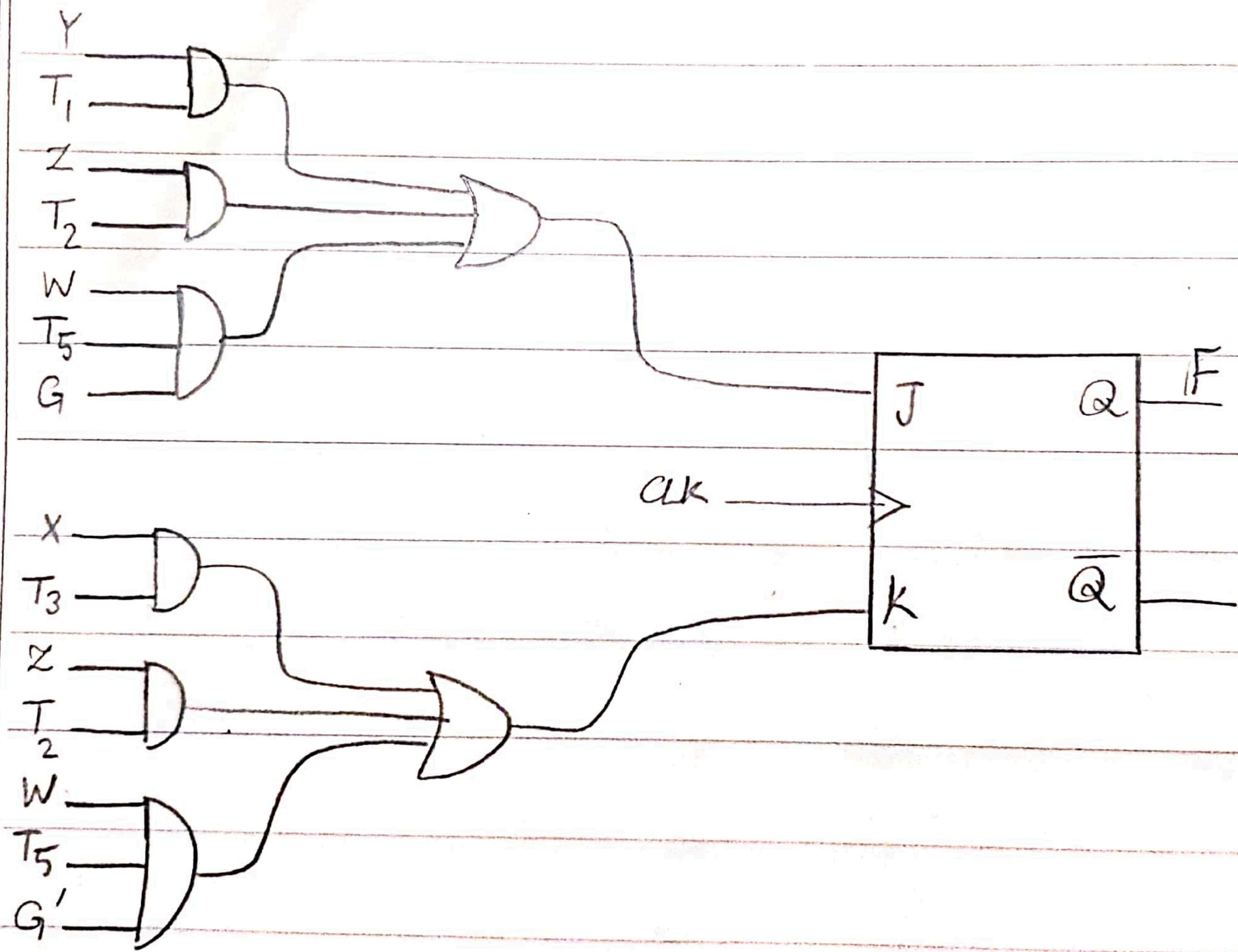
$Y T_1 : F \leftarrow 1$

$Z T_2 : F \leftarrow \sim F$

$W T_5 : F \leftarrow G$

(5)

$$J = YT_1 + ZT_2 + WT_5G \quad , \quad K = XT_3 + ZT_2 + WT_5G'$$



⑥

if  $AC=0$  then  $Y_{AC}=1$

if  $DR=0$  then  $Y_{DR}=1$

$$INC(PC) = R'T_1 + RT_2 + D_6 T_6 Y_{DR} + PB_9(FIGI) + PB_8(FGO) + rB_4$$

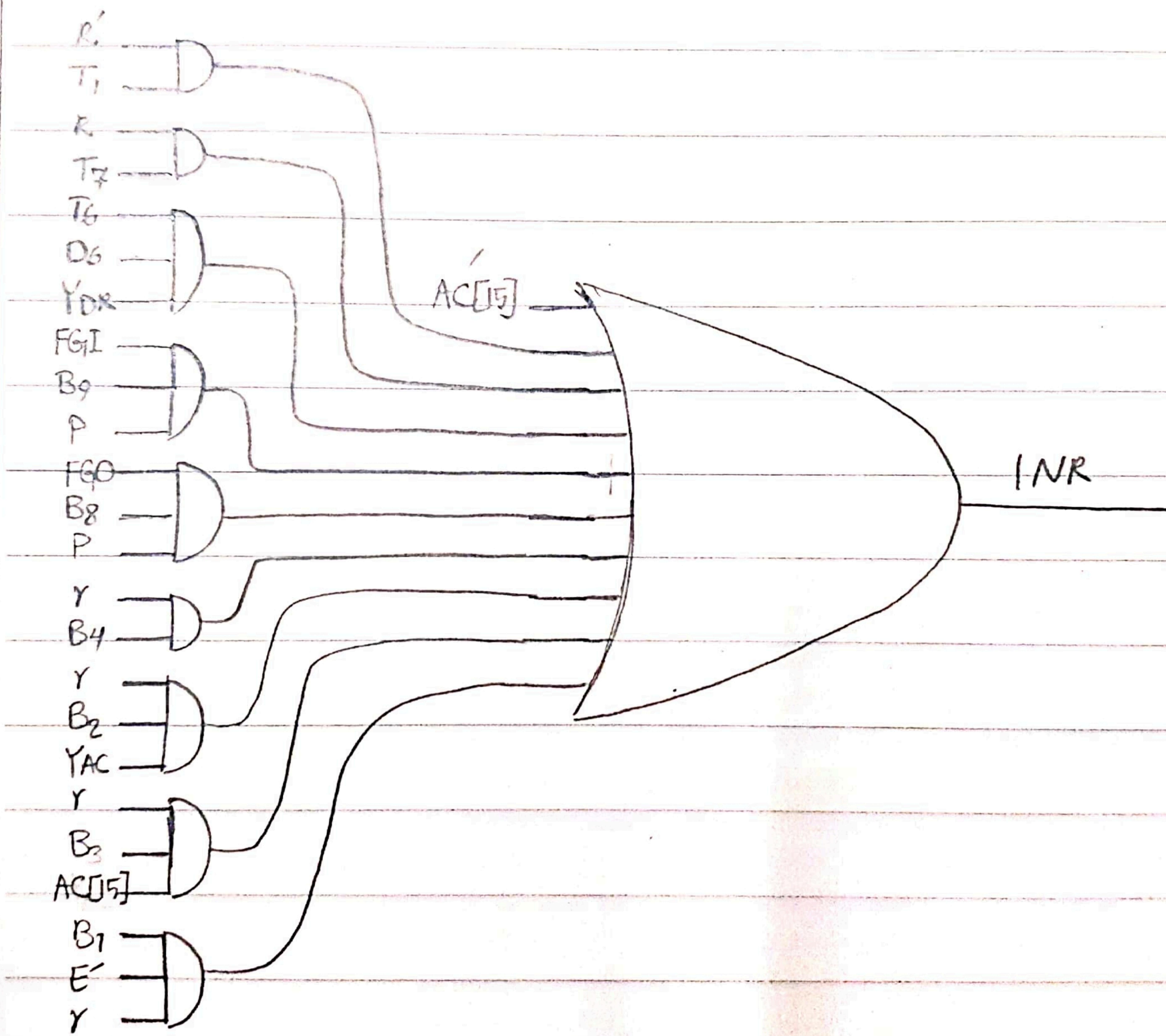
$$+ AC[5] + rB_3 AC[15] + rB_2 Y_{AC} + rB_1 E'$$

$$LD(PC) = D_4 T_4 + D_5 T_5$$

$$, CLR(PC) = RT_1$$

⑤

⑥  $f_2$ :



⑥

$f_5'$ :

