

اذا $p \rightarrow q$ ف $p \wedge q = 0$ (۱)

$$(p \wedge q) \rightarrow (q \vee \sim p)$$

I
II

20

$$\left. \begin{array}{l} I = (p \wedge q) = (1 \wedge 0) = 0 \\ II = (0 \vee 0) = 0 \end{array} \right\} \begin{array}{l} I \rightarrow II \\ 0 \rightarrow 0 = 1 \end{array}$$

$$\left. \begin{array}{l} p=0 \text{ و } q=1 \\ I = (0 \wedge 1) = 0 \\ II = (1 \vee 1) = 1 \end{array} \right\} \begin{array}{l} I \rightarrow II \\ 0 \rightarrow 1 = 1 \end{array}$$

$$\left. \begin{array}{l} p=0 \text{ و } q=0 \\ I = (0 \wedge 0) = 0 \\ II = (0 \vee 1) = 1 \end{array} \right\} \begin{array}{l} I \rightarrow II \\ 0 \rightarrow 1 = 1 \end{array}$$

$$\left. \begin{array}{l} p=1 \text{ و } q=1 \\ I = (1 \wedge 1) = 1 \\ II = (1 \vee 0) = 1 \end{array} \right\} \begin{array}{l} I \rightarrow II \\ 1 \rightarrow 1 = 1 \end{array}$$

$$A \equiv ((A \rightarrow B) \vee \sim B) \rightarrow \sim A$$

اذا A و B متضادان ف $A \rightarrow B$ و $\sim B$ متساويان

$$\left. \begin{array}{l} A=1 \text{ و } B=0 \\ I = ((A \rightarrow B) \vee \sim B) \\ II = \sim A \end{array} \right\} \begin{array}{l} I = ((1 \rightarrow 0) \vee 1) = (0 \vee 1) = 1 \\ II = \sim 1 = 0 \end{array}$$

$$I = ((1 \rightarrow 0) \vee 1) = (0 \vee 1) = 1$$

$$\begin{array}{l} I = 1 \\ I \rightarrow II \\ 1 \rightarrow 0 \end{array}$$

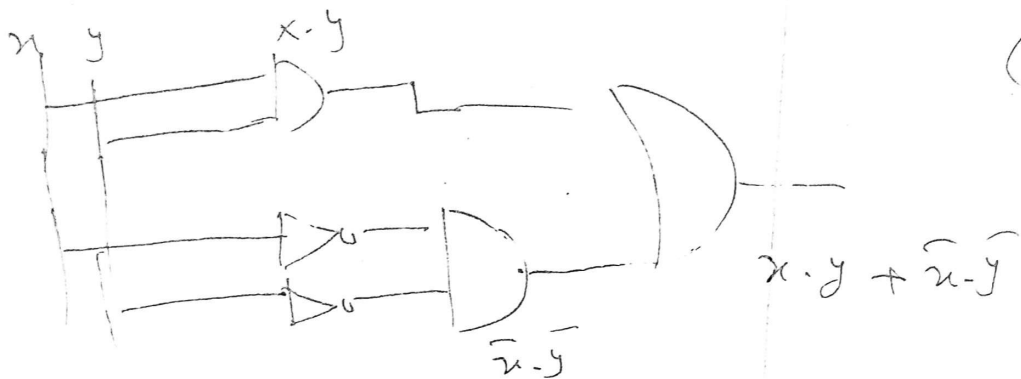
$$\left. \begin{array}{l} A=1 \text{ و } B=1 \\ I = (1 \rightarrow 1) \vee 0 \\ II = (0 \vee 1) = 1 \end{array} \right\}$$

$$I = 1 \text{ و } II = 1 \rightarrow I \rightarrow II$$

اسم ریکی پر لکھو

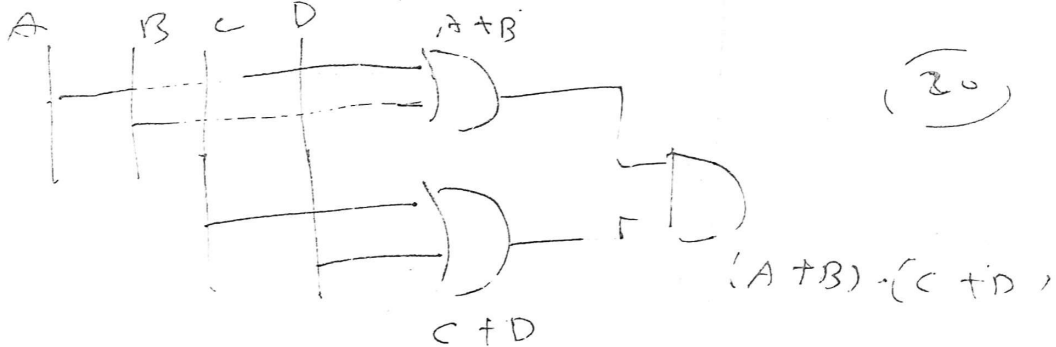
الغالب اسی : اس میں اس کے لئے

$$F(x, y) = x \oplus y = (x \cdot y) + (\bar{x} \bar{y})$$



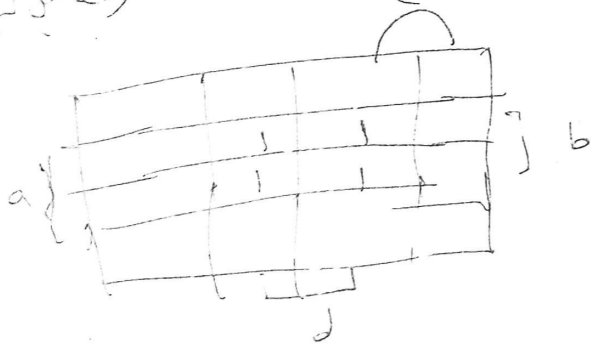
(2)

$$F = (A + B) \cdot (C + D)$$



(20)

السؤال 20: اكتب البوليغراف (أو صيغة البوليغراف)



$$F = A \bar{B} \bar{C} D + A \bar{B} C D + A B \bar{C} D + A B C D$$

$$A \bar{B} \bar{C} D + A \bar{B} C D = A \bar{B} D$$