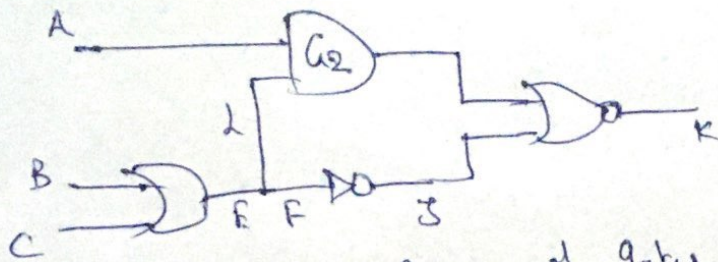


Example

Give Patterns $A = \{1, 1, 1, 0\}$; $B = \{0, 1, 0, 1\}$, $C = \{0, 0, 1, 1\}$
and $K = \{0, 0, 1, 1\}$



Sol To define Parallel Evaluation of gates from given Patterns.

WKT :- If $A^0 = 1$ and $A^1 = 0$ then o/p is "0"
If $A^0 = 0$ and $A^1 = 1$ then o/p is "1"
If $A^0 = 0$ and $A^1 = 0$ then o/p is unknown (u)

∴ To define given Pattern then.

$$A^0 = \begin{pmatrix} 0 & 0 & 0 & 1 \end{pmatrix}$$

$$A^1 = \begin{pmatrix} 1 & 1 & 1 & 0 \end{pmatrix}$$

$$A \Rightarrow \{1, 1, 1, 0\}$$

$$C^0 = \begin{pmatrix} 0 & 0 & 0 & 1 \end{pmatrix}$$

$$C^1 = \begin{pmatrix} 1 & 1 & 0 & 0 \end{pmatrix}$$

$$C \Rightarrow \{0, 0, 1, 1\}$$

$$A^1 \Rightarrow \begin{bmatrix} 1 & 1 & 1 & 0 \end{bmatrix}$$

$$A^0 \Rightarrow \begin{bmatrix} 0 & 0 & 0 & 1 \end{bmatrix}$$

$$B^0 = \begin{pmatrix} 1 & 0 & 0 & 0 \end{pmatrix}$$

$$B^1 = \begin{pmatrix} 0 & 1 & 0 & 1 \end{pmatrix}$$

$$B \Rightarrow \{0, 1, 0, 1\}$$

$$K^0 = \begin{pmatrix} 0 & 0 & 0 & 1 \end{pmatrix}$$

$$K^1 = \begin{pmatrix} 1 & 1 & 0 & 0 \end{pmatrix}$$

$$K = \{0, 0, 1, 1\}$$

