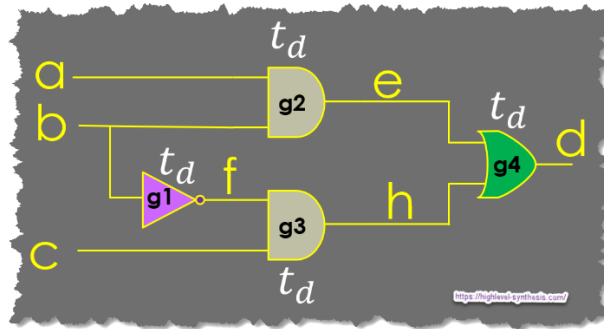


**Quiz-1**

These are the paths in the circuit and their corresponding propagation delay.



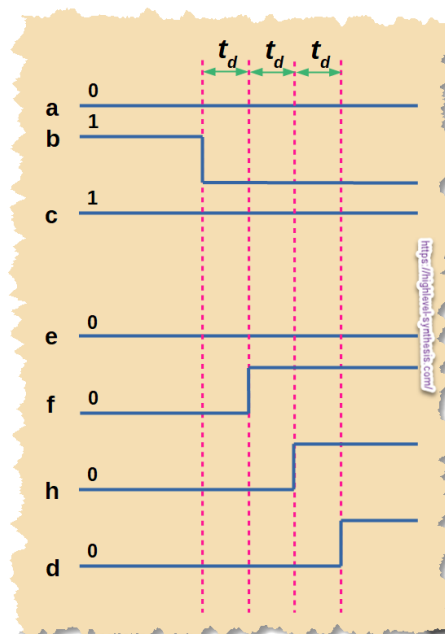
**P1:**  $a \rightarrow e \rightarrow d \dots\dots\dots 2t_d$

**P2:**  $b \rightarrow e \rightarrow d \dots\dots\dots 2t_d$

**P3:**  $b \rightarrow f \rightarrow h \rightarrow d \dots\dots\dots 3t_d$

**P4:**  $c \rightarrow h \rightarrow d \dots\dots\dots 2t_d$

Therefore, the circuit propagation delay is  $3t_d$  and the following diagram shows the circuit signals timing diagram.



**Quiz-2**

As the longest path passes through 2 gates, then the circuit propagation delay is  $2t_d$ .

