

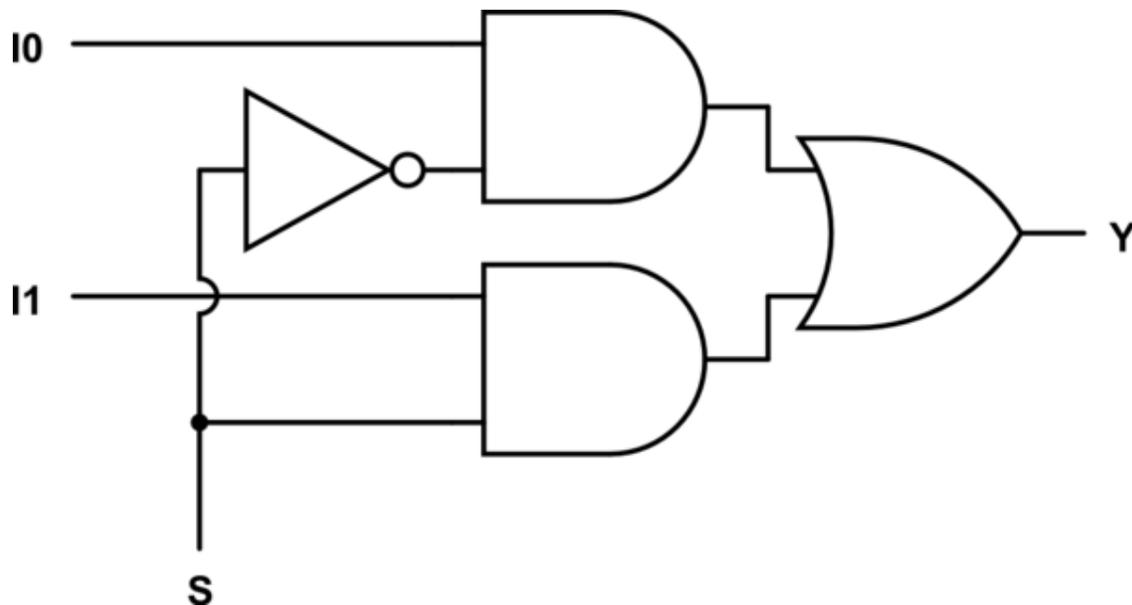
## EXPERIMENT NO. - 12

### Aim of the Experiment:

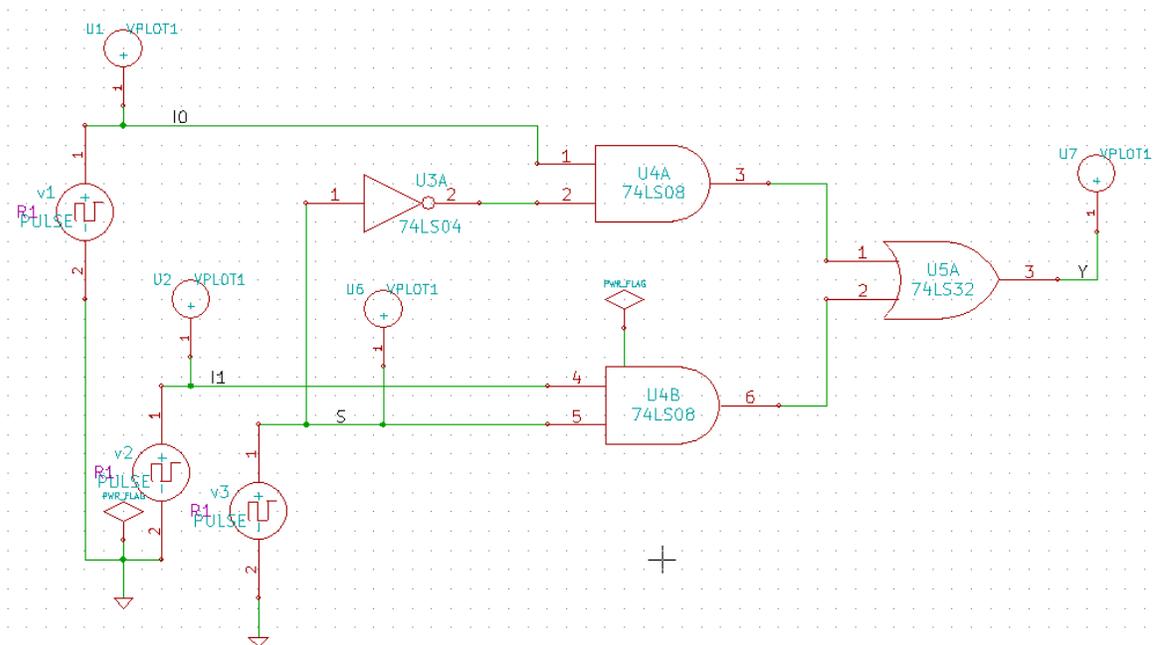
### Study of multiplexor **Theory:**

In [electronics](#), a multiplexer (or mux) is a device that selects one of several [analog](#) or [digital](#) input signals and forwards the selected input into a single line. A multiplexer of  $2^n$  inputs has  $n$  select lines, which are used to select which input line to send to the output. Multiplexers are mainly used to increase the amount of data that can be sent over the [network](#) within a certain amount of time and [bandwidth](#). A multiplexer is also called a data selector.

An electronic multiplexer makes it possible for several signals to share one device or resource, for example one [A/D converter](#) or one communication line, instead of having one device per input signal.

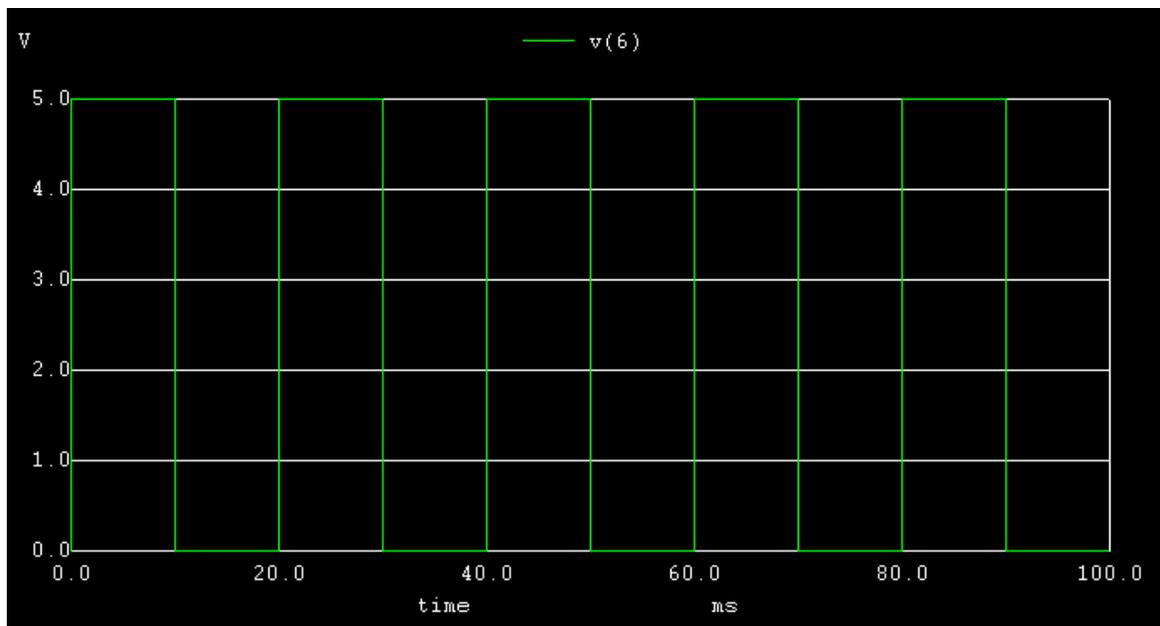


**Schematic Circuit:**

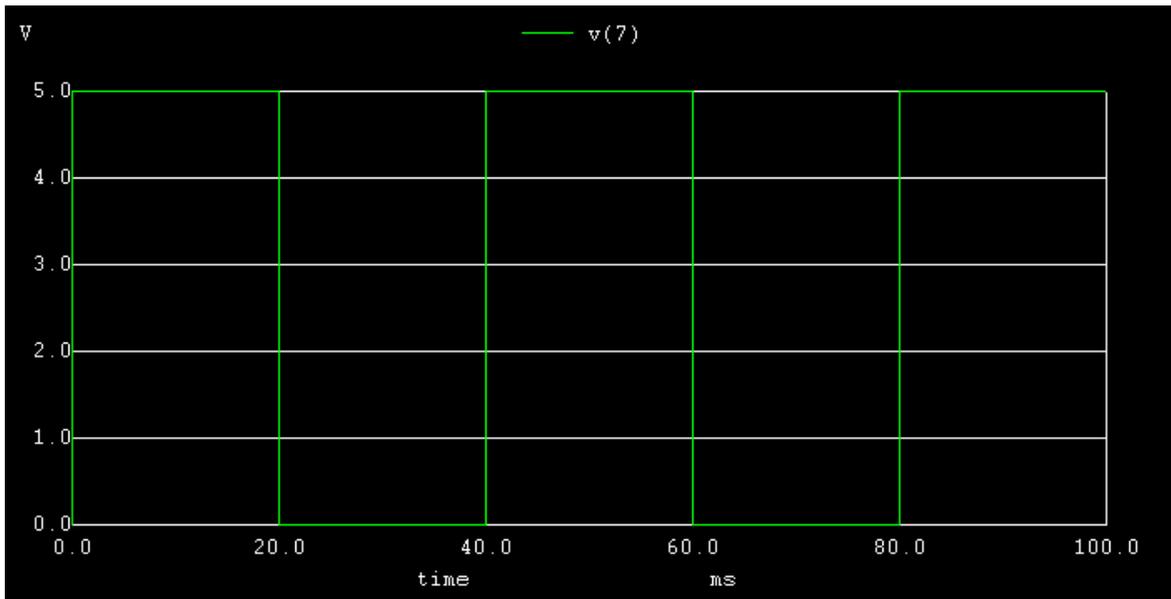


**Input Waveform:**

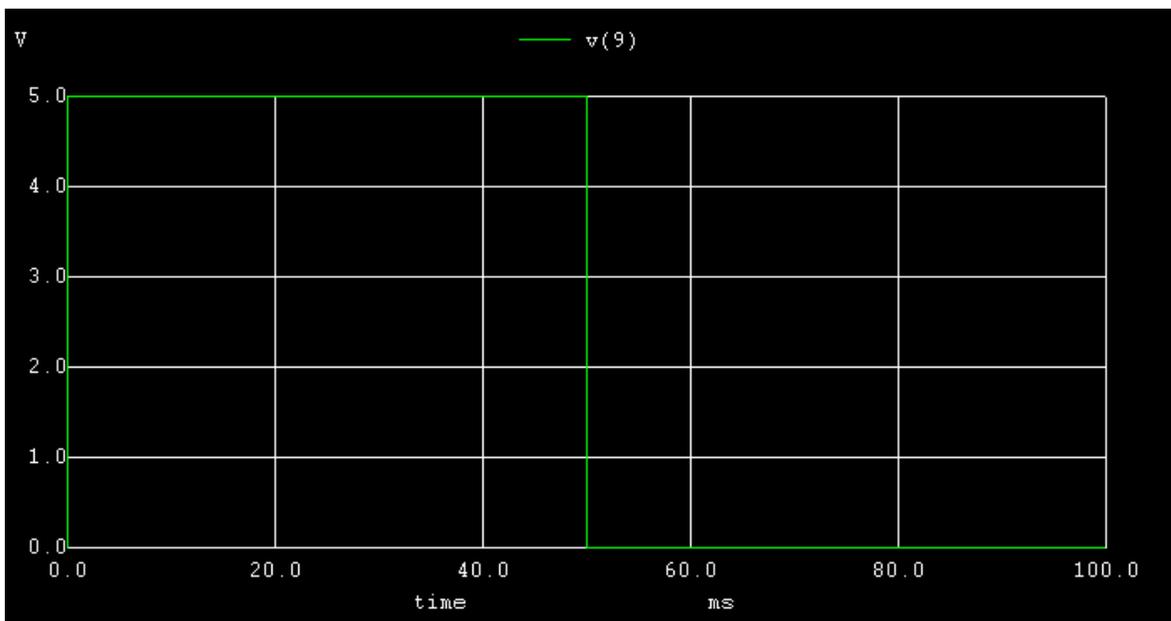
**I0:**



**I1:**

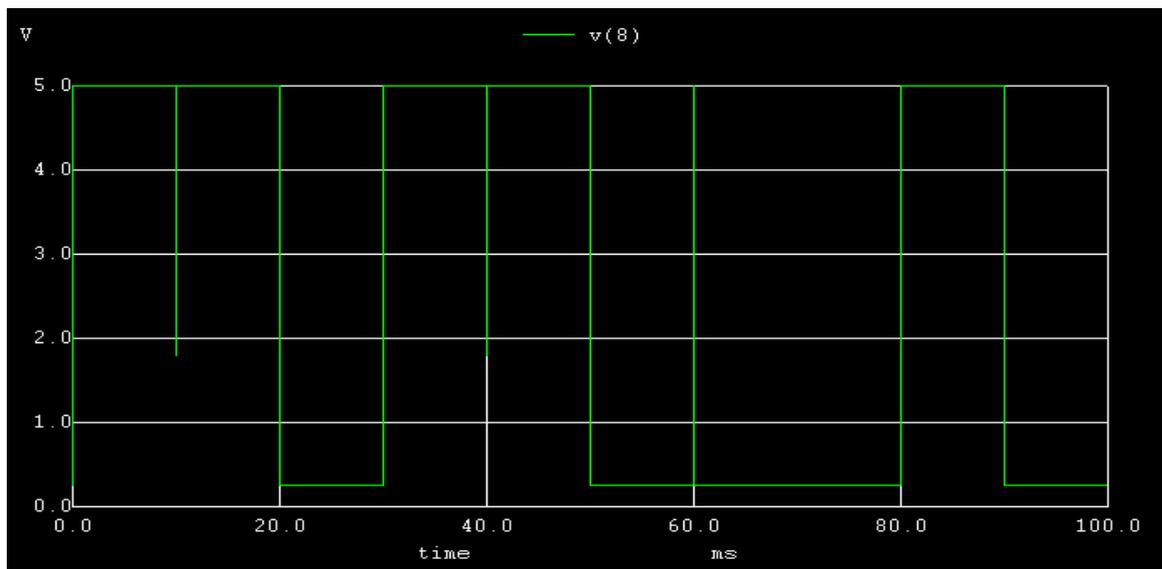


**S:**



**Output Waveform:**

**Y:**



**Conclusion:**

**Date:**

**Signature of the Student**

**NAME:**

**ROLL NO.:**

**GROUP ID:**

**SUB GROUP NO.:**

**Experiment Mark: / 20**

**Instructor's Signature**