

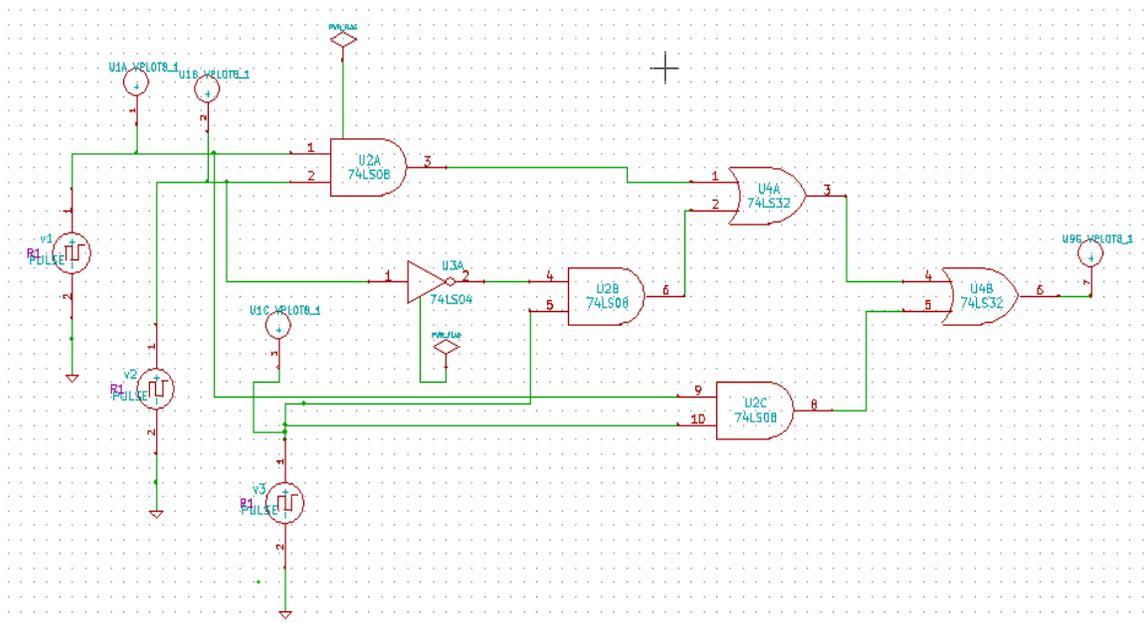
## EXPERIMENT NO. - 11

### Aim of the Experiment:

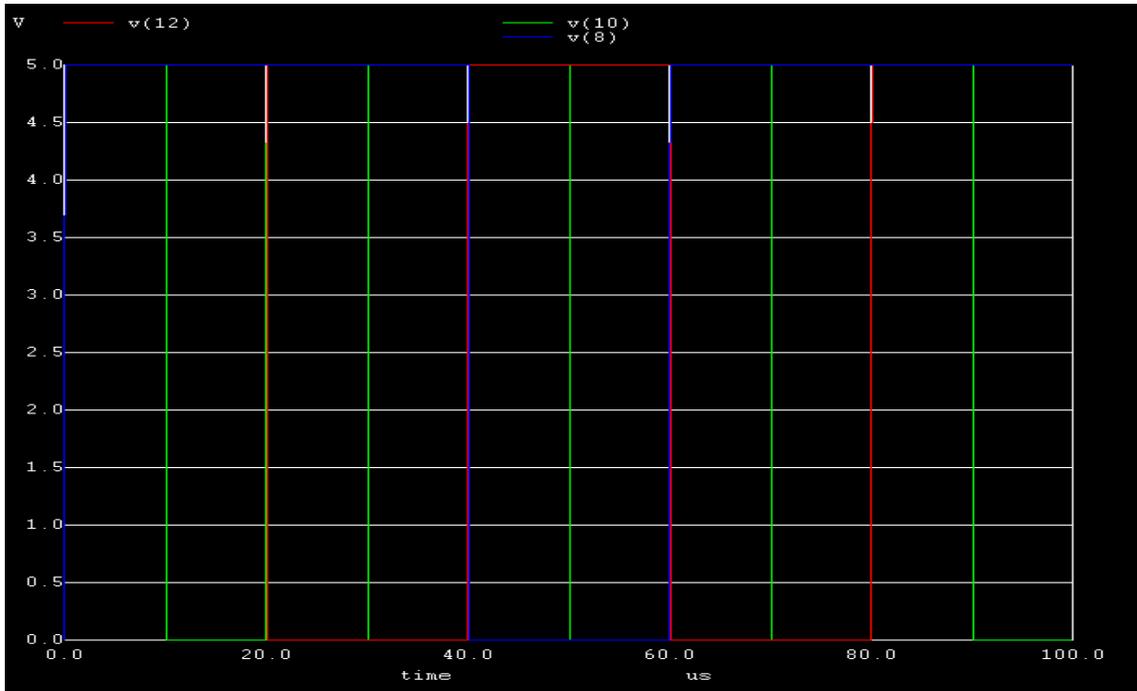
Design, assemble and testing of SOP implementation

### Theory:

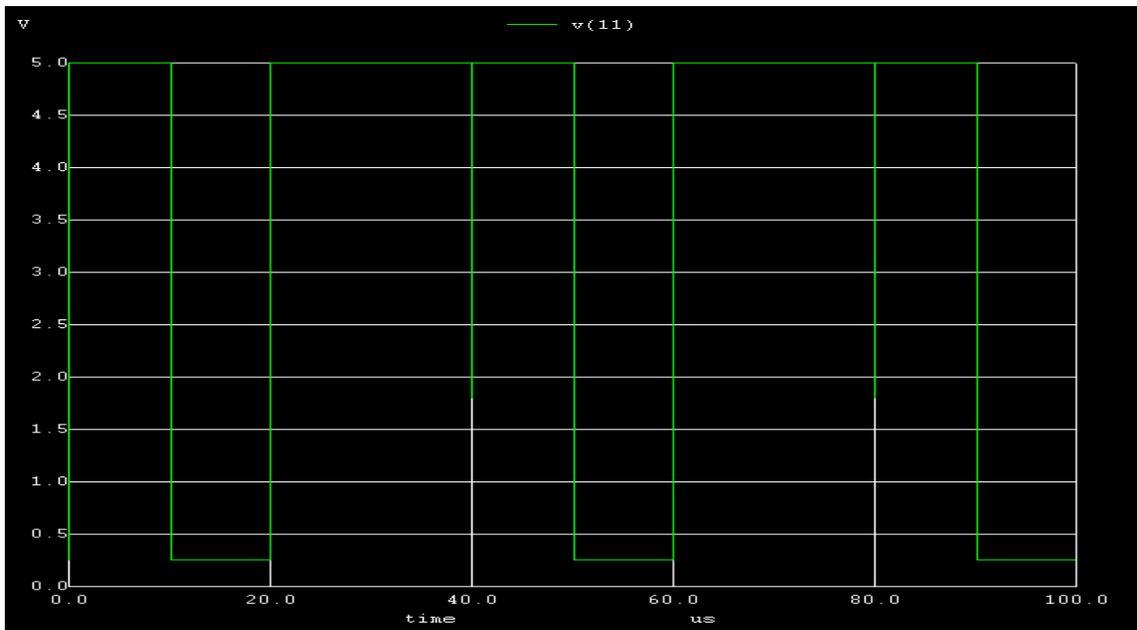
Two dual canonical forms of *any* Boolean function are a "sum of minterms" and a "product of maxterms." The term "Sum of Products" or "SoP" is widely used for the canonical form that is a disjunction (OR) of minterms. Its [De Morgan dual](#) is a "Product of Sums" or "PoS" for the canonical form that is a conjunction (AND) of maxterms. These forms can be useful for the simplification of these functions, which is of great importance in the minimization or other optimization of Boolean formulas in general and digital circuits in particular. **Schematic Circuit:**



**Input Waveform:**



**Output Waveform:**



**Conclusion:**

**Date:**

**Signature of the Student**

**NAME:**

**ROLL NO.:**

**GROUP ID:**

**SUB GROUP NO.:**

**Experiment Mark:            / 20**

**Instructor's Signature**