NETWORKS LAB (EE 351)

EXPERIMENT.1

Transient response of the RC circuit

OBJECTIVE:

(1) To study the Transient response of the RC circuit for step input with different values of R.

(2) To verify the calculated values of different parameters with that of measured values.

EQUIPMENT: storage scope, function generator, power supply, Breadboard.

CIRCUIT DIAGRAM:

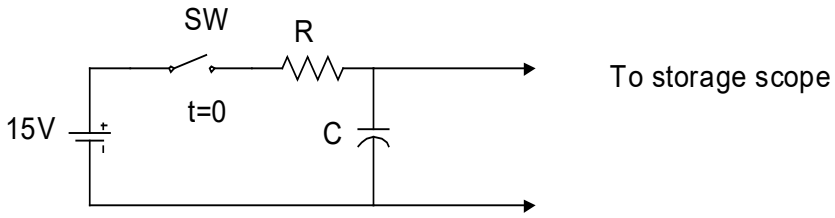

Fig.1

PROCEDURE:

1. Connect the circuit on Breadboard as shown in figure. 1 above with R=2.2k, C=33μf
2. Close the switch try to hold the capacitor voltage variation on the storage scope.
3. Take the measurement of various parameter listed in the table below
4. Repeat the experiment for R=4.4k, 6.6kand 8.8k.
5. Note approximate shape of capacitor voltage (Vc) variation on the graph sheet.
6. Calculate the value of different parameter listed in the tale below and verify them with the measured values

TABLE:

R	C	DELAY TIME (0-10%)	RISE TIME (10-90%)	SETTLING TIME	TIME CONSTANT