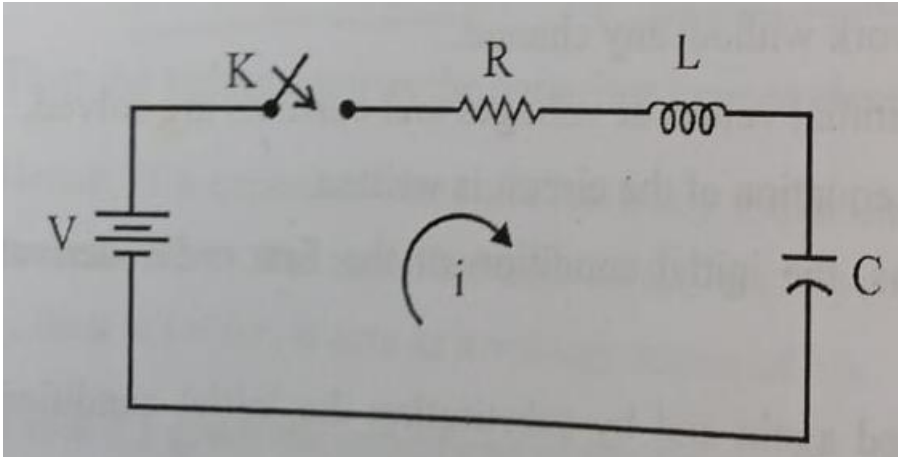
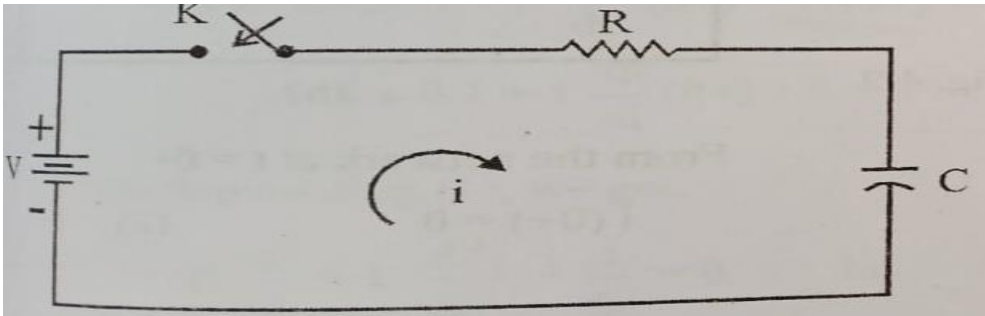
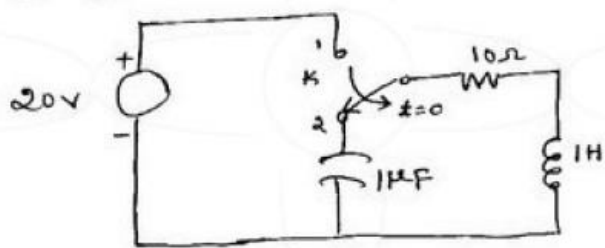


Assignment 2

1	Obtain the equations for Y Parameters	
2	<p>Derive the relation between</p> <ol style="list-style-type: none"> 1. Y and Z parameters 2. Y and T Parameters 3. Z and Y parameters 4. Z and T Parameters 5. Z and H parameters 6. T and Y Parameters 7. T and Z Parameters 8. T and H Parameters 9. H and Y Parameters 10. H and Z Parameters 11. H and T Parameters 	
3	Explain the Initial and Final conditions in basic elements	
4	<p>In the circuit shown in Fig.4.4, $V = 10 \text{ V}$, $R = 10 \Omega$, $L = 1 \text{ H}$, $C = 10 \mu\text{F}$ and $v_C(0) = 0$, find $i(0+)$, $\frac{di}{dt}(0+)$ and $\frac{d^2i}{dt^2}(0+)$. (Kuvempu University)</p> 	
5	<p>In the network of the Fig.4.8(a), the switch K is closed at $t = 0$, with the capacitor uncharged. Find the values of i, $\frac{di}{dt}$, $\frac{d^2i}{dt^2}$ at $t = 0+$, for element values as follows. $V = 100 \text{ V}$, $R = 1000 \Omega$ and $C = 1 \mu\text{F}$. (Karnataka University).</p> 	

6	<p>For the circuit shown in Fig. Q5(b), the switch 'K' is changing the position from 1 to 2 at $t = 0$. Steady state condition has been reached at position 1. Find the value of i, $\frac{di}{dt}$, $\frac{d^2i}{dt^2}$ at $t = 0^+$.</p>  <p>Fig. Q5(b)</p>	
7	Find the Laplace transform of the Triangular waveform	
8	Find the Laplace transform of the Step Waveform	
9	Prove the Initial and Final Value Theorem	
10	Derive an Expression for Series Resonance Circuit..	
11	List the differences between series and parallel Resonance circuit.	
12	<p>A series R L C circuit has $R = 10 \Omega$, $L = 0.1 \text{ H}$ and $C = 100 \mu\text{F}$ and is connected across a 200 V, variable frequency source. Find (a) the resonant frequency (b) impedance at this frequency (c) the voltage drops across inductance and capacitance at this frequency. (d) quality factor and (e) band width. (Kuvempu University)</p>	