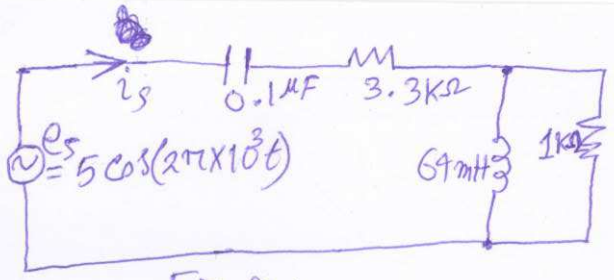

Fig (a)

Fig (b)

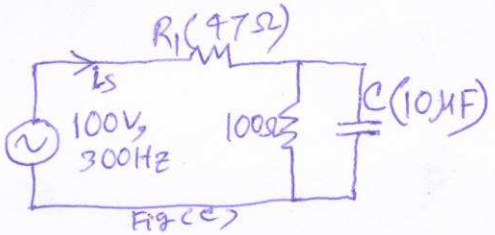

Fig (c)

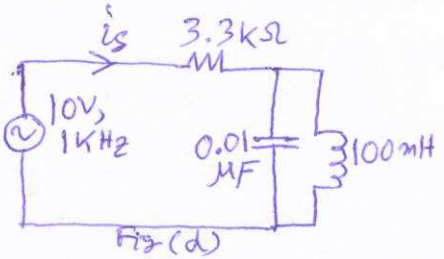

Fig (d)

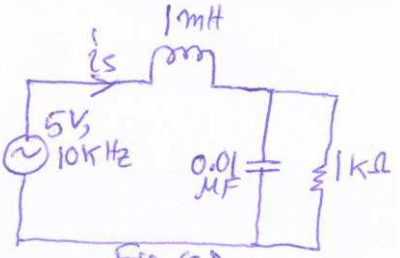

Fig (e)

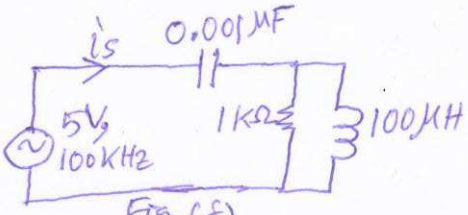

Fig (f)

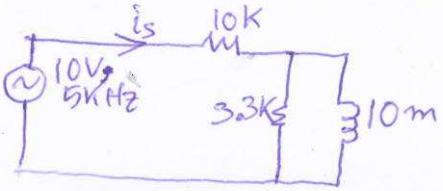

Fig (g)

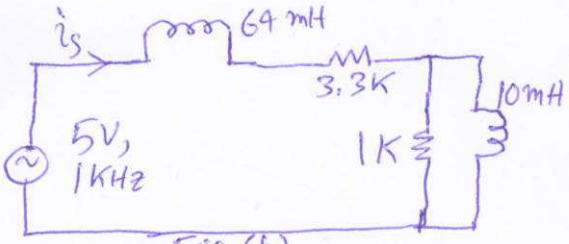

Fig (h)

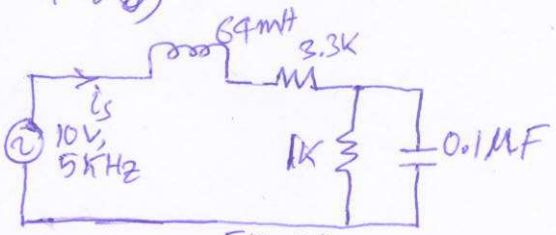

Fig (i)

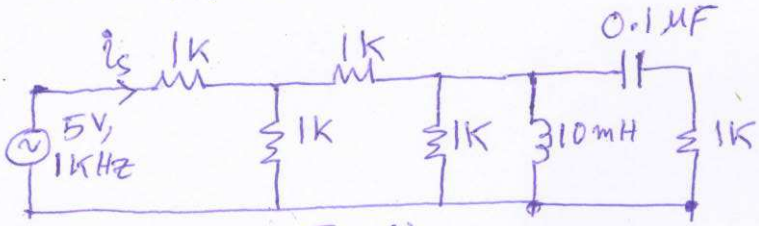

Fig (j)

1. Write the differential equation for supply current i_s and solve it. Assume initial conditions are zero.
2. Calculate the constants of the solution and derive the complete response.
3. Analyze the circuit to determine i_s, voltage across all elements, and the phase angle of all these voltages and i_s with respect to the supply voltage e_s. Draw the phasor diagram.
4. Write the state-equation(s) for the circuit. In case of R-L-C circuits, calculate the Eigen values from the matrix ***A***.