JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY
Electronics and Communication Engineering
Electrical Science-1 (15B11EC111)
Tutorial Sheet: 8

Q.1 [CO2] Find i_1, i_2, V_L and V_c for the circuit shown in fig. 1 using mesh analysis:

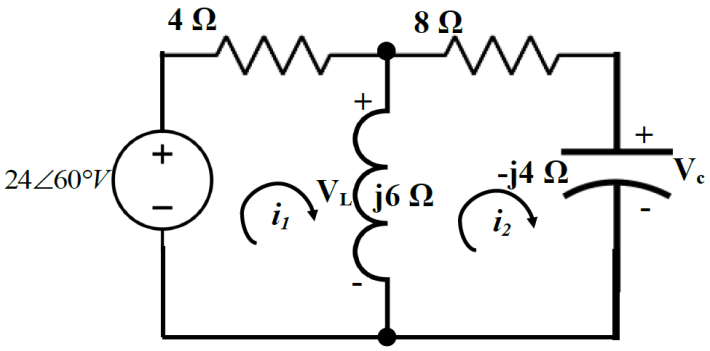

Fig.1

Q. 2 [CO2] Determine mesh equation for the circuit shown in fig. 2: Given ω = 103 rad/s

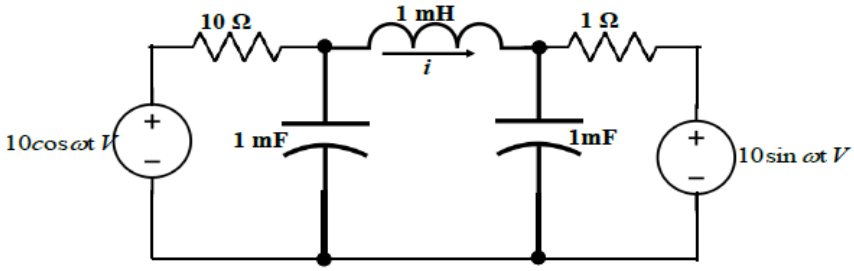

Fig.2

Q. 3 [CO2] Determine B and L for the circuit shown in fig. 3, when i (t) = B cos (3t-51.87°) A.

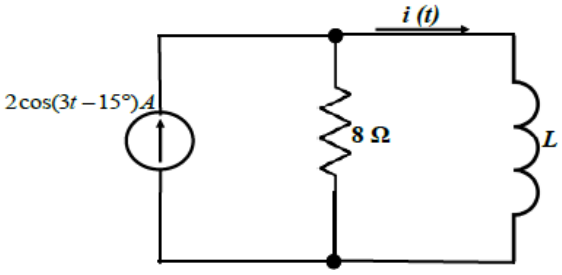

Fig. 3

Q. 4. [CO2] Determine *i* in the circuit shown in fig. 4:

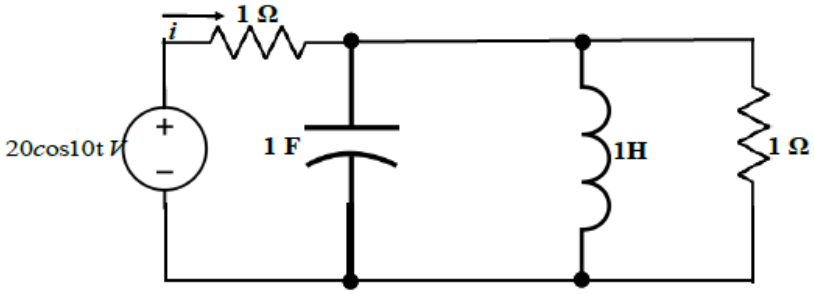

Fig.4

Q. 5. [CO2] Determine V_x in the circuit shown in fig. 5 using any method of your choice.

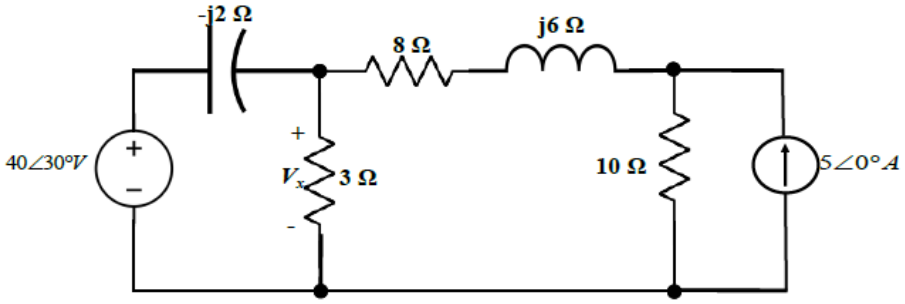

Fig. 5

Q. 6. [CO2] Use the superposition theorem to obtain v_x in the circuit shown in **fig. 6** Let **v_s = 50sin2t V and i_s = 12 cos (6t+10°) A.**

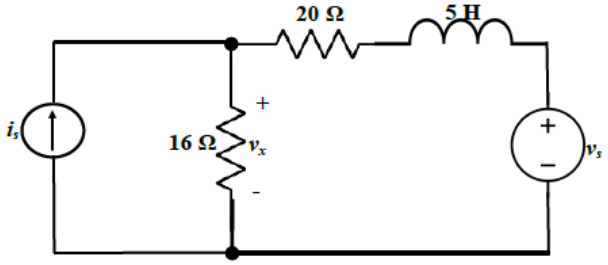

Fig. 6