

IIIT-H 2021
Network Theory
HW3:
(Time: 1 Week)

List any assumptions you make in your calculations.
Discussions are ok but submitted work should be your own.
Copied HW will be marked negatively.

1. Re-do the mid term Quiz. Use the graphical method to solve problem 5.
2. When does inductor behave like (a) Short circuit (b) Open circuit.
What will be the equivalent inductance if N inductors $L_1, L_2, L_3 \dots L_N$ are connected in (a) series (b) parallel.
How will you use inductor for (a) Voltage division (b) current division.
3. When does capacitor behave like (a) Short circuit (b) Open circuit.
What will be the equivalent capacitance if N capacitors $C_1, C_2, C_3 \dots C_N$ are connected in (a) series (b) parallel.
How will you use inductor for (a) Voltage division (b) current division.
4. From text book, chapter 7 (Ed 8)
Solve Problem No.: 15, 20, 30, 35, 36, 37, 49
5. From text book, chapter 8 (Ed 8)
Solve Problem No.: 35, 48, 53, 60, 67, 70, 71