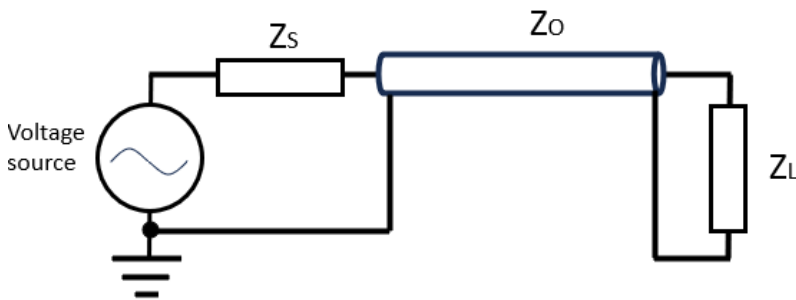




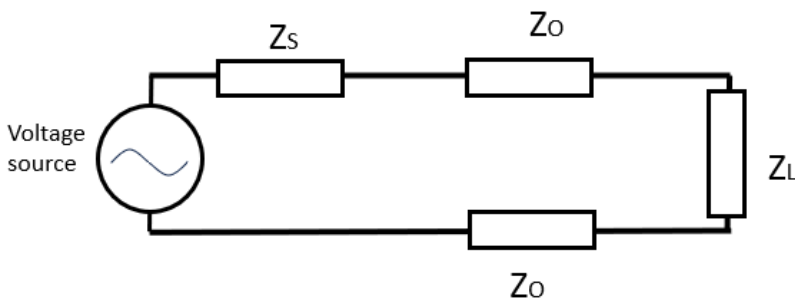
**PRACTICAL**

**Section 1 and 2 – QUESTIONS**

1. Describe the difference between coaxial and ladder/parallel transmission lines.
2. What is the nominal impedance of coaxial line used by amateur radio operators?
3. Describe the difference between balanced and unbalanced transmission lines.
4. Coaxial transmission lines are available in 50 and 75-ohm impedance? True / False
5. Do all parallel or ladder lines have the same impedance? Yes / No
6. If in question 5, they are different, list some examples of different impedances.
7. Identify the balanced and unbalanced line in the drawings below.



$Z_s$  = Impedance of the signal source, transmitter  
 $Z_o$  = Impedance of the line  
 $Z_L$  = Impedance of the load, antenna



$Z_s$  = Impedance of the signal source, transmitter  
 $Z_o$  = Impedance of the line  
 $Z_L$  = Impedance of the load, antenna

8. Identify the balanced and unbalanced line in the pictures below.

**A range of coaxial line**



RG58 50 Ohm



RG213 low loss 50 Ohm



Belden 9913  
ultra low loss 50 Ohm

**Parallel line (Ladder line)**

