

PRACTICAL

Section 1 – Answers

1. Describe the difference between coaxial and ladder/parallel transmission lines.

Coaxial is round and has a centre wire surrounded by a shield. Ladder line has two conductors separated by an insulator.

2. What is the nominal impedance of coaxial line used by amateur radio operators?

50 ohms

3. Describe the difference between balanced and unbalanced transmission lines.

A balanced line is a two-conductor circuit in which both conductors have the same impedance. In an unbalanced line, one of the conductors is connected to ground.

4. Coaxial transmission lines are available in 50 and 75-ohm impedance? True / False

True

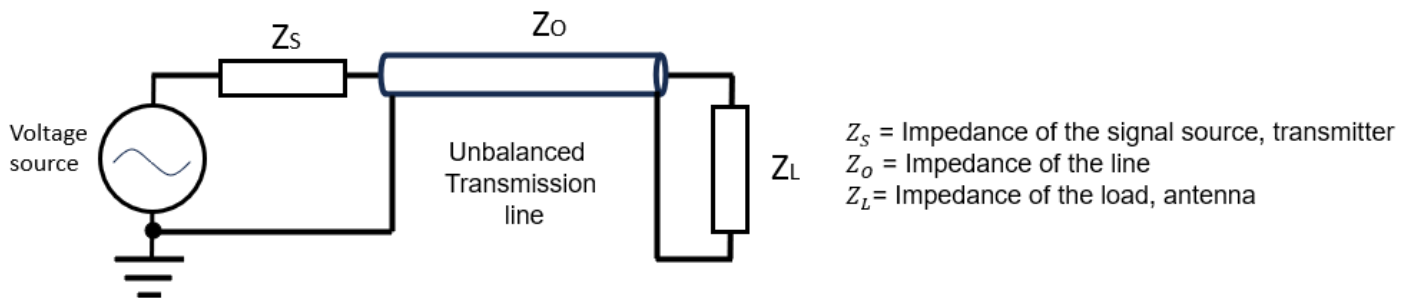
5. Do all parallel or ladder lines have the same impedance? Yes / No

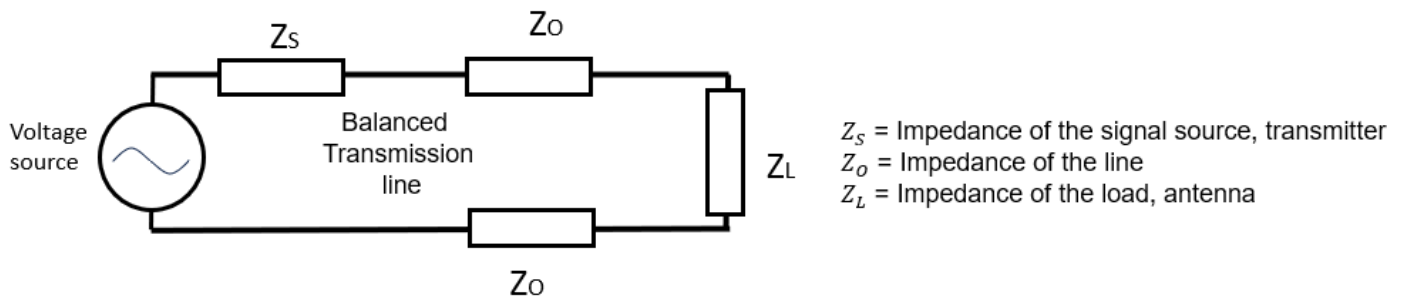
No

6. If in question 5, they are different, list some examples of different impedances.

300, 450 and 600 ohms.

7. Identify the balanced an unbalanced line in the drawings below.





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



Unbalanced



Balanced