

## **16. REVIEW QUESTIONS**

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1. Explain why the reflection of current is always opposite in sign while the reflection of voltage is of the same sign as the forward wave.
2. Describe the basic premise behind the method of multiple reflections.
3. The steady state solution for a dc source on a loaded line does not require the use of the multiple reflections method. Explain how the steady state solution is obtained.
4. What is time domain reflectometry? Discuss some of its uses.
5. In time domain reflectometry, it is possible to identify the load. Explain how this is done.
6. A pulse, of any length, may be assumed to propagate on a line independent of any other pulses that may exist on the same line  $T/F$ .
7. Distinguish between short and long pulses. What is the important measure in this distinction?
8. Why is it necessary to use special techniques when analyzing capacitive or inductive loads?
9. What constitutes an initial condition on a line?
10. How can an initial condition on a line be established?
11. A short occurs on a dc power line. Show how this line may be analyzed as a line with initial conditions.
12. Cable TV companies allow a single connection per subscriber. How can they tell if the subscriber connects more than one TV set to the same line? Design a test to detect multiple connections.