

Chapter 5-3 - Questions

Q1 What does VSWR stand for?

Voltage Standing Wave Ratio

Q2 What are the three variables when connecting an antenna to a transmitter?

- 1. Transmitter (and receiver)**
- 2. Transmission Line**
- 3. Antenna**

Q3 What is Z_s , Z_o and Z_L ?

Z_s Impedance of the source

Z_o Impedance of the line

Z_L Impedance of the load

Q4 To get maximum power to the air waves, what is the ideal conditions for Z_s , Z_o and Z_L ?

$Z_s = Z_o = Z_L$

Q5 What is a standing wave?

A standing wave is the wave generated when the forward and reflected wave go in and out of phase.

Q6 List a few possible consequences if the SWR is poor?

Some negative side effects of a high SWR include:

- Transmitter power amplifiers can be damaged.**
- PA Protection in modern transmitters reduces output power.**
- High voltage and current levels can damage the transmission lines.**
- Delays caused by reflections can cause distortion in the signal.**
- Reduction in signal strength compared to perfectly match system.**

Q7 What is an ideal SWR?

1:1 up to 1.5:1

Q8 Draw the set up for a transmitter to antenna connection and name the parts.



Q9 Why would you listen on the frequency before transmitting a test?

To ensure the frequency is not being used by other operators.

Q10 Why do regular SWR checks?

Mismatches can occur with components of different impedances or a faulty connector.