Mark each true/false question either T or F (1pt each)

___ Other factors being equal, noise due to electric field coupling is reduced as the impedance level of the victim circuit is reduced.  

Why or why not? ____________________________________________________________
___________________________________________________________________________

___ Using twisted-pair wires is an effective method of reducing noise due to magnetic field coupling.

___ (multiple choice) The five shields above are identical apart from their apertures. Which shield has the lowest shielding effectiveness?

___ (multiple choice) Which shield has the highest shielding effectiveness?

___ (multiple choice) Which shield has the 3rd highest shielding effectiveness?

Fully justify your answer. ____________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

___ A two-wire resistance measurement using a digital multimeter will give a lower resistance than a four-wire measurement since it is only connected to two lead resistances.

___ Given that R is an RTD, a four-wire resistance measurement will indicate a lower temperature than would a two-wire measurement.

Why or why not? ________________________________________________________________

___ For a given shield, the shielding effectiveness due to absorption, A, increases with frequency.

___ A shield has ten (10) identical holes. Measurements indicate that the noise voltage with no shield, $V_{ns}$, is 1 V and that the voltage with the shield present, $V_{sh}$, is 1 mV. Given this data, the shielding effectiveness for the shield with just one hole would be 70 dB.