COE 342, Term 012 Data & Computer Communications

Quiz# 2

Date: Wednesday, April 24, 2002

Q1. Compare Category 3 and Category 5 UTP cables and 150-ohm STP cable in terms of frequency, attenuation, and near-end crosstalk.

Q2. Compare twisted pair, coaxial, and fiber optic cables in terms of frequency, attenuation, and repeater spacing.

Q3. Compare step-index multimode, graded-index multimode, and single-mode fiber optics in terms of bandwidth.

Q4. Attenuation in fiber optic is a result of two factors, namely absorption and scattering. Explain the effect of scattering on attenuation.

Q5. Determine the maximum distance in KM between two microwave antennas at a height of 200m.

Q6. Given the bit stream 1 0 1 0 0 0 0 0 1 0, sketch the waveforms for each of the codes given below. Assume that for all the encoding schemes the reference value is negative.

	1	0	1	0	0	0	0	0	1	0	
NRZI											
Bipolar AMI											
Manchester											
Differential Manchester											
HDB3											