

KFUPM - COMPUTER ENGINEERING DEPARTMENT

COE-543 – Mobile Computing and Wireless Networking

Assignment 2 – Due Sunday November 5th, 2006

Refer to Principles of Wireless Networks – A unified approach, by K. Pahlavan

Questions:

2.7 (use matlab to plot the distributions – plot the rician distribution for different values of the LOS parameter to obtain figures similar to those found the class notes),

2.8, and

2.13 (be brief).

Problems:

2.3,

2.7 (note the relative powers are given in dBs), and 2.12 (for part (a) utilize table 2.4 and solve only for a distance-power gradient equal to 2.0 – for part (b) utilize equation 2.14).

3.2 (for part (b): use table 3A.1. To obtain the formula for Rayleigh fading, assuming a similar transformation occurs for BPSK when we change the channel from AWGN to Rayleigh fading – for part (c): remember that if the envelope is Rayleigh distributed, then the power follows an exponential distribution).

3.4