

KFUPM - COMPUTER ENGINEERING DEPARTMENT

COE-341 – Data and Computer Communication

HINTS for Assignment 2 – Due date: Wed April 14th, 2010

Student Name:

Student Number:

1) Problem 3.3 (10 points)

Cosine and sine laws from calculus - express as added sines or cosines without phases.

2) Problem 3.6 (10 points)

Again Cosine and sine laws.

3) Problem 3.13 (10 points)

Remember the notes about size of digital images in bits.

4) Problem 3.20 (10 points)

Assume the bandwidth of the telephone channel is 3000 Hz.

For (b) - just provide a discussion whether the actual maximum is higher or lower than the value computed in part (a). There is no formula.

5) Problem 3.23 (10 points)

Simple relation between SNR and E_b/N_0 . Refer to textbook page 95.

Chapter 4 Review Questions (Textbook page 135):

6) Question 4.2 (5 points),

Refer to textbook section 4.1

7) Question 4.5 (5 points),

Refer to textbook section 4.2 (pages 119 and onwards).

Chapter 4 Problems (Textbook pages 135, 136, and 137):

8) Problem 4.2 (10 points)

SNR is the ratio of (output) power to the noise power.

9) Problem 4.3 (10 points)

Use Figure 4.3 (textbook page 108) to get the attenuation per km information. Use this information to compute the length of the medium.