KFUPM - COMPUTER ENGINEERING DEPARTMENT

COE-540 – Computer Networks
Quiz 01 – Due Feb 11th, 2012 – Take home quiz

Student Name:
Student Number:

(40 points) Consider a telephone channel of 3000 Hz wide. It is required to

a) (20 points) Reproduce the number of harmonics calculations in the table shown in Figure 2-2. The student is to show the required calculations.

b) (10 points) For a signal-to-noise ratio of 30 dB, compute the maximum theoretical capacity in bits per second for such channel?

c) (10 points) Ignoring noise on the channel, what would be the maximum theoretical capacity in bits per second for such channel? Explain.