

EE 132A

Homework 5

Due Wednesday March 12, 2008

Work all 7 problems.

Problem 1. Proakis & Salehi 8.2 except replace $x(t)$ with

$$x(t) = \cos(\pi t/8).$$

Problem 2. Proakis & Salehi 8.5 except change the pulse durations in Figure P-8.5 from (0 - 1), (2 - 3) to (0 - 2), (3 - 5).

Problem 3. Proakis & Salehi 8.8 part (1) only.

Problem 4. Proakis & Salehi 8.10 except change R to $R = 10^6$ bits/sec and change P_2 to $P_2 = 10^{-5}$.

Problem 5. Proakis & Salehi 8.13 except use

$$P(a_m = 1) = 1/4, \quad P(a_m = -1) = 3/4.$$

Problem 6. Proakis & Salehi 8.20.

Problem 7. Proakis & Salehi 8.23 except in part (2) use an error probability of 10^{-6} .