CARLETON UNIVERSITY
Department of Systems and Computer Engineering

94.565 | **Advanced Digital Communications** | **Winter 1999**

Assignment #4

Given: Monday, March 22, 1999 **Due:** Monday, April 12, 1999

64 points

Part I. All questions in this part are from Chapter 10 of the text (*Digital Communications*, J. Proakis, 3rd ed., 1995):

Questions 2 (6 pts), 3 (7 pts), 7 (5 pts), 8 (7 pts), 10 (4 pts), 11 (4 pts), 13 (4 pts), 14 (7 pts), 15 (7 pts), 21.a (3 pts), 22 (3 pts), 24 (7 pts).

Note 1: In question 8, assume that a symbol-by-symbol detector is employed.

Note 2: In question 14.a, assume that the signal pulse has duration T. Also, in question 14.c, assume that the estimation of the parameter α is correct and that the probability of error at each time instant is the same.

Part II. (0 points) How long did it take to do this assignment? Did you find the assignment relevant to the topics covered in the class?