EEE 598
Introduction to Complex Networks
Spring 2018

Homework 1

Due: Tuesday, January 23, in class

1. (20 points) Problem 6.2 on page 164 in textbook.

2. (20 points) Problem 6.3 on page 165 in textbook.

3. (30 points) Problem 6.7 on page 166 in textbook.

4. (30 points) Consider a random network of n nodes. Let p be the probability that a given node is connected to each of the $(n-1)$ other nodes in the network.

   - Show that the average degree is $c = p(n-1)$.
   - Show that for large n, the degree distribution is Poisson.