

## **IE 516 – Manufacturing Planning and Control**

Fall 2014

Home Work # 1

---

Q1. Think about three different situations in life where you can observe scheduling problems. What are the resources, tasks (jobs) and objectives? Please give different examples than those in Chapter 1 of the textbook (Pinedo). If there are any scheduling problems of special interest to you, then please say so!

Q2. Describe any one system where scheduling is applied with sketch of information flow diagram. Please give different example than those in Chapter 1 of the textbook (Pinedo).

Q3. Using mathematical induction, prove that the number of possible sequences in which you can schedule  $n$  jobs on a single machine is  $n!$

Q4. Do the following problems from the textbook (Pinedo) and give all the steps involved in finding the different schedules.

Problem 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.11, 2.12, and 2.22.