

**ISyE 3104 Fall08**  
**Homework 10 (15 points)**  
**Due 6th of November**

**1) (11 Points)** The anticipated demands for a five period planning horizon are 24, 10, 30, 20, and 21. The starting inventory is 4 units, and the company desires 9 units of inventory at the end of the planning horizon. The setup cost is \$20 and the holding cost is \$1/unit/period.

**a) (9 Points)** Find the optimal production schedule (Hint: modify the first and last period's demand to account for initial and ending inventories. If there are more than 1 optimal schedules state all of them.)

**b) (2 Points)** What are the holding and setup costs of the optimal production schedule.

**2) (4 Points)** Read the article "Technology's toxic trash: finding a new use for e-waste"  
<http://www.whistle.gatech.edu/archives/02/nov/04/ewaste.html>

**a) (2 Points)** Why are some European countries forcing manufacturers to take back discarded electronics?

**b) (2 Points)** What is the meaning of a "reverse production system" within the context of this article?