

**Homework #11**  
**Supply Chain Models: Manufacturing & Warehousing (ISyE 3104) – Spring 2002**  
**Due April 4, 2002**

Show all your steps to get partial or full credit. Total 40 points.

**Question 1**

The time-phased net requirements for the body assembly in a bicycle over the next 10 weeks are given below. Order setup cost \$40 and the holding cost can be assumed as \$1 per unit per week. The manager plans to have an ending inventory of 8 units and the initial inventory level is 4.

Weeks	1	2	3	4	5	6	7	8	9	10
requirement	6	12	4	18	15	25	20	5	10	20

Find the lot sizes using the methods specified:

- a) (8 points) EOQ Formula
- b) (8 points) Silver-Meal heuristic
- c) (8 points) Part period balancing
- d) (8 points) Least unit cost heuristic
- e) (8 points) Compare the holding and setup costs you found in parts (a) through (d) with the cost of a lot-for-lot policy.