Math 30210 — Introduction to Operations Research

Quiz 10 – Wednesday November 28, 2007

NAME: _____

Instructions: This is a closed-book quiz. Please do not use any notes.

The demand for a certain perishable item over the next four months is estimated to be 40, 30, 42 and 38 tons, respectively. The production capacities for the next four months are estimated to be 50, 60, 20 and 30 tons, respectively. The production price per ton over the next four months is estimated to be \$10, \$14, \$12 and \$15 per ton, respectively. Storage cost is estimated to be \$2 per ton per month. Because the item is perishable, it must be shipped out either during the month of production or during one of the following two months.

Set up the problem of determining the optimum (least-cost) four month shipping schedule, using a transportation tableau, and use the least-cost method to find an initial feasible shipping schedule.