Egyptian Chinese University Faculty of Computers and Information Systems	ECU EGYPTIAN CHINESE UNIVERSITY الجامعة المصرية الصينية EDUCATION NEW ERA	Level 1. Operation Research Sheet (5): Transportation Model

Q1:

Solve each of the following transportation models by using the northwest- corner method, least-cost method, and Vogel's approximation method to obtain the starting solution. Compare the computations.

(a)

1	2	6	7
0	4	2	12
3	1	5	11
10	10	10	

(b)

5	1	8	12
2	4	0	14
3	6	7	4
9	10	11	

Q2:

Find the starting solution in the following transportation problem by the:

a) Northwest-corner method.

b) The least-cost method.

c) Vogel's approximation method.

Obtain the optimal solution by using the best starting solution.

10	20	5	7	10
13	9	12	8	20
4	15	7	9	30
14	7	1	0	40
3	12	5	19	50
60	60	20	10	

Q3:

Solve the following unbalanced transportation problem using VAM to find the starting solution.

5	1	0	20
3	2	4	10
7	5	2	15
9	6	0	15
5	10	15	

With my best wishes
Dr. Mostafa Ashour