SA405 – AMP Lesson #1

Homework #2: Applying the Hungarian Algorithm

Each column corresponds to a job that needs to be accomplished, and each row corresponds to a worker who can complete the job. Each table contains the time it takes for each worker to complete each job. Solve the following problems to minmize the total time it takes to complete all jobs using the Hungarian Algorithm. Specific each job-worker assignment as well as the total cost.

1 Problem 1.

Job 1 Job 2 Job 3 Job 4 Job 5 Worker A 20 8 4 55 16 Worker B 17 21 44 12 21 Worker C 20 33 31 15 18 Worker D 10 19 25 33 7 Worker E 10 6 15 4 17

2 Problem 2.

Job 1 Job 2 Job 3 Worker A 29 17 11 Worker B 8 19 21 Worker C 22 20 20

3 Problem 3.

Job 1 Job 2 Job 3 Job 4 Worker A 115 98 25 33 Worker B 77 54 47 60 Worker C 60 61 62 58 Worker D 37 49 88 101

1