This assignment contains 1 pages (including this cover page) and 4 questions. Total of points is 100.

Conditions: All work must be completed individually. No outside resources are permitted. The only permitted resources are your texts and class notes.

Write your answers neatly and clearly on standard paper. Include your name and Net ID. Follow submission instructions as indicated on Canvas.

1. (40 points) Answers questions from Drozdek CH 10.8: 1, 2, 3, and 4.

2. (30 points) Describe a hashing strategy that provides a universal, perfect hash that uses linear space, AND prove the space complexity is linearly bounded.

3. (20 points) Answers questions from Drozdek CH 8.14: 3 and 7.

4. (10 points) Identify and discuss the similarities and differences of Dijkstra's algorithm and Ford's algorithm.