

CSE Qualifying Exam Fall 2023

Theory and Algorithms

September 27, 2023

Your Name: _____

Your PSU Email: _____

Instructions (please read these carefully):

1. Time limit: 170 minutes.
2. There are 6 problems; answer them all.
3. Show the intermediate steps as much as you can.
4. The pages are numbered from 1 to 18. For each problem answer in the same page and the page after. The last four pages (15–18) can be used for any problem if needed, in which case please clearly mark which problem it is for, or used as “scratch” papers.

Grade Table (for graders-use only):

Problem 1	/20
Problem 2	/20
Problem 3	/20
Problem 4	/20
Problem 5	/20
Problem 6	/20
Total	/120