University of Waterloo
CS240E, Winter 2021
Assignment 5 Post Mortem

Question 1   [4 marks]

- Some students switched around the necessary structure for the relationship and text.

- Some students used patterns P and texts T of fixed length.

Question 2   [3+3+3=9 marks]

- In part a), Some students argued that a specific pattern matching algorithm (for instance, one which traverses from left to right) must look at $\geq \lfloor n/m \rfloor$ characters of T and that implies all pattern matching algorithms must. This is incorrect reasoning because it could possibly be that another pattern matching algorithm can perform better.

- Parts b/c) were well done.

Question 3   [13 marks]

- Generally well done. Explanations were somewhat lacking.

- Some students' compression scheme did not handle strings where all runs are of length 1. Some students did not discuss the lengths of the encoded result.

Question 4   [2+4+2 marks]

- Parts a, c) were well done.

- In part b) being off-by-one was the most common source of error.

Question 5   [2(+5) marks]

- Part a) was well done.

- Part b) – of the students that attempted this question, most did not prove that the trie has leaves at depth l_i.