

13 Nov 2018

ECE20002-01 Discrete Mathematics, 2018 Fall

## Quiz 2

Your name: \_\_\_\_\_ Your team number : \_\_\_\_\_

\*\* Every team member will have extra 20 pts if the team average is greater than 50 pts.

1. Let  $P(n)$  be a statement that a postage of  $n$  cents can be formed using just 4-cent stamps and 7-cent stamps.

Show that  $P(n)$  is true for  $n > 17$  (50 points)

2. Give a recursive definition of MAX such that MAX(1,3,9,2,6) is 9 (20 pts)

3. Give a recursive definition of a proportional function over strings such that the function is true iff the given string is a palindrome (30 pts)