CONCORDIA UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING

COMP 6651: Algorithm Design Techniques

Winter 2022

Quiz # 7

First Name	Last Name	ID#

Question 1: 5 points

Question 2: 2 points

An algorithm gives a solution which satisfied:

$$\max\left(\frac{C}{C*}, \frac{C*}{C}\right) \le p(n)$$

with p(n) is the approximation ratio, $C*$ is the optimal solution and C is the solution of the provided algorithm.

Question 3: 3 points

A fully polynomial-time approximation algorithm is:

- An approximation algorithm (1 point)

- Its running time is polynomial in both $1/\epsilon$ and n with n is the size of the problem (2 point)