COL863: Quantum Computation and Information (Semester-II-2018-19) Quiz-05

Name: _____

Entry number: _____

There are 1 questions for a total of 10 points.

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1. (10 points) Let $f : \{0,1\}^n \to \mathbb{Z}$ be an efficiently computable function (efficient in the classical sense). Assume that $\forall x \neq y, f(x) \neq f(y)$. Design a quantum algorithm for finding the input for which the function gets minimized. Discuss correctness and running time.

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