

UCL Department of Computer Science CS M038/GZ06: Mobile and Cloud Computing Spring 2013 Kyle Jamieson and Brad Karp

One-pager: Large-Scale Incremental Processing Using Distributed Transactions and Notifica-

tions, Peng *et al.*, 2010)

Due: Start of lecture, 8th March 2013

Instructions: in your own words, answer the following questions as succinctly as possible (in 200–500 words total, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is specifically prohibited.

Percolator's transaction protocol stipulates that a transaction must read metadata to check for other conflicting transactions. The transaction must abort if it sees another write record after its start timestamp, or a lock at any timestamp.

To understand the difference between these two conditions in the operation of the transaction protocol, give an example sequence of events (the progress of two write transactions) that elicits each condition.