(Concurrent and) Distributed Systems Past Paper

Because of syllabus changes, no longer applicable: 2018 P5 Q8; 2015 P5 Q8; 2014 P5 Q9 (a); 2013 P5 Q9; 2011 P5 Q8 (b).

RPC

- y2016p5q9
 - [A]Syn, Idempotence
 - o (b) Distributed-filesystem clients
- y2017p5q8(b)
 - o at-least once semantics
- y2014p5q9
 - Quorums

Clock

Physical clock

- y2014p5q7
- y2019p5q7 (a)
 - NTP, drift and skew

Logical clock and event ordering

- y2020p5q8 (a-c)
 - happens-before relationship
 - Lamport ts, total ordering
- y2015p5q9 (b)
 - Casual vs Total ordering
- y2019p5q7 (b)
 - Lamport, vector clock
- y2017p5q9

Broadcast

- y2010p5q6
 - o Causal order
- y2020p5q8 (d,e)
 - o FIFO, FIFO-total order
- y2015p5q9 (a)
 - o (c) A replicated database

Raft

• y2021p5q8

Replication

- y2012p5q9
 - weak consistency and strong consistency