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| Parallel and Distributed Computing (6E/6F)  Quiz 01 (Spring 2022) | | Name: |
| Instructor: Dr. Syed M. Irteza | |
| Date: 2022-03-14 | | Roll Number: |
| Total Marks: 15 | Time Allowed: 10 minutes |

1. The PRAM model that provides the minimum memory access concurrency is? [3m]
   1. Exclusive-read, concurrent-write PRAM
   2. Concurrent-read, concurrent-write PRAM
   3. Exclusive-read, exclusive-write PRAM
   4. Concurrent-read, exclusive-write PRAM
2. We use arbitration protocols for concurrent writes, the protocol which requires all writes to store identical values to be accepted is? [3m]
   1. Sum
   2. Priority
   3. Arbitrary
   4. Common
3. Total communication costs for a message of size ***m*** words and ***tw*** per-word transfer time with packet routing (instead of store-and-forward routing) are reduced by? [3m]
   1. Having no *ts*, i.e., startup time
   2. Multiplying *twm* by 1, not l (where l is the number of communication links)
   3. Multiplying *twm* by l, not 1 (where l is the number of communication links)
   4. Having a smaller value for l (where l is the number of communication links)
4. We discussed two different metrics for concurrency and looked at two similar examples of task-dependency graphs. What were those two different metrics, and why was it that in those two graphs, one of the metrics was the same, and the other was different for both? [6m]