

Module 9 (Lectures 38-41) Introduction to Parallel programming

1. In an SIMD parallel computer,
 - a) a single stream of instructions is fetched from memory and divided across all the processors of the parallel computer
 - b) the execution of a single instruction is divided across all the processors of the parallel computer
 - c) the same instruction is executed with the same data on all processors of the parallel computer
 - d) the same instruction is executed with possibly different data on all processors of the parallel computer
2. In a 3-dimensional torus interconnect, each node has
 - a) 3 neighbours
 - b) 4 neighbours
 - c) 5 neighbours
 - d) 6 neighbours
3. In a snoopy invalidate cache coherence protocol
 - a) all nodes must monitor the invalidate signals being broadcast
 - b) all nodes must broadcast invalidate signals when they observe block fetches
 - c) a node must broadcast an invalidate signal when it modifies a cache block in cache
 - d) a node must respond to invalidate signals on blocks that it does not hold
4. An MPI communicator is
 - a) a process that is sending a message
 - b) a process that is receiving a message
 - c) a process involved in a collective communication
 - d) a set of processes that can communicate among themselves
5. Which of the following is not a collective MPI communication call?
 - a) MPI_Bcast
 - b) MPI_Scatter
 - c) MPI_Reduce
 - d) MPI_Comm_Rank