

**Quiz 2**  
**Operating Systems and Networks**  
**IIIT Hyderabad**  
**Time: 30 minutes; Max. Marks: 24**

Note: Give a brief and correct answer. **Mention your name and roll number on the answer sheet. Answer the question after writing the question in the answer sheet.**

1. Do you agree that “multithreading framework improves both Concurrency and Parallelism on multicore system?” Justify your answer.
2. Suppose a CPU scheduling algorithm favors those programs that have used little processor time in the recent past. Explain why this algorithm favors I/O-bound processes and yet does not permanently deny processor time to CPU-bound processes ?
3. What is the purpose of thread pools?
4. Explain merits and demerits of synchronous and asynchronous communication.
5. Explain the role of short-term scheduler?
6. Consider a multiprocessor system and a multi threaded program using many-to-many threading model. Let the number of user-level threads in the program be more than the number of processors in the system. Discuss the performance implications of the following: “The number of kernel threads allocated to the program is equal to the number of processors”.