

**CSE 4501 : Operating Systems**  
**Islamic University of Technology (IUT)**  
**Department of CSE**  
**Time : 45 Mins**  
**Date: Monday, 07 June 2021**  
**Total Marks: 30**

**Quiz**

**:1+2**

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| 1. | Define precisely, the different types of multicore systems. Explain briefly, the advantages of multicore systems.                | 2+3 |
| 2. | Why do we need dual mode of operation? How does an OS differentiate between them?  | 2+3 |
| 3. | What do you understand by privileged instructions? What will happen if a user tries to execute a privileged instruction?         | 2+3 |
| 4. | What is the difference between a process and a program? Briefly explain the states of a process lifecycle with suitable diagram. | 2+3 |
| 5. | In how many ways can you implement queues for storing messages exchanged by communicating processes? Explain briefly.            | 5   |
| 6. | In how many ways can different communicating processes be synchronized? Explain briefly.   | 5   |