Name:	ID:	Section:
-------	-----	----------

## Department of Computer Science and Engineering CSE321: Operating Systems

Spring 2024
Take Home Quiz-1

Full Marks: 5

Submission: During the Class of 30/1/24

Please remember that you just have to write very short answers to the given questions. Please submit only handwritten answers.

- 1. What role does the kernel play in an operating system?
- 2. Explain the concept of a device abstraction layer in the context of system software.
- 3. Explain the purpose of a file system in an operating system.
- 4. What is the significance of system calls in the interaction between application software and the operating system?
- 5. How do real-time operating systems (RTOS) differ from general-purpose operating systems?
- 6. Where is the Bootstrap Program typically stored?
- 7. What is the primary purpose of User Mode in dual-mode operation?
- 8. How does the dual-mode operation enhance system security?
- 9. How does a layered operating system handle communication between different layers, and what challenges may arise?
- 10. Explain the trade-offs between monolithic and microkernel operating system architectures.