

CSE 321– Operating Systems
Take Home Quiz 1
Spring Semester – 2024
Set A

Grade

Full Name (in Block Letter): _____ REJWAN SHAFI _____

ID: _____ 23241108 _____ **Section:** _____ 07 _____ **Signature:** _____

1. In a busy computer lab during midterm week at a university, many students need access to a limited number of computers for their assignments and exams. To ensure fair and efficient resource allocation, **which** concept of operating system can be employed to address the issue? **Explain** how this method can solve the problem and mention the benefits it offers. 1
2. What specific problem(s) of the monolithic structure were addressed through the adoption of layered architecture, and how were they resolved? 3
3. **Which** of the following instructions should be privileged? 1
 - i. Set value of timer
 - ii. Read the clock
 - iii. Clear memory
 - iv. Issue a trap instruction
 - v. Turn off interrupts
 - vi. Modify entries in device-status table.
4. **Discuss** drawback faced by Batch OS architecture and suggest possible way(s) to overcome it. 3
5. **Discuss** the purpose of RTOS. 2