



CSE316\_Quiz\_Threads  
8 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. What is a thread in the context of an operating system?

- |  |   |
|--|---|
| <input type="radio"/> A A separate program | <input type="radio"/> B A type of process   |
| <input type="radio"/> C A separate process | <input type="radio"/> D A lightweight process that shares the same resources with other threads in the same process |

2. Which of the following is an advantage of using threads over processes?

- |   |   |
|---|---|
| <input type="radio"/> A Threads are independent of each other | <input type="radio"/> B Threads are slower than processes   |
| <input type="radio"/> C Threads have their own address space  | <input type="radio"/> D Threads share memory space and resources with other threads in the same process |

3. In a multi-threaded process, each thread has its own:

- |  |   |
|--|---|
| <input type="radio"/> A Global variables | <input type="radio"/> B File descriptors    |
| <input type="radio"/> C Heap             | <input type="radio"/> D Stack and Registers |

4. Which threading model offers better performance due to its ability to be fully managed by the user-level code?

- |  |   |
|--|---|
| <input type="radio"/> A User-level threading | <input type="radio"/> B Kernel-level threading  |
| <input type="radio"/> C Hybrid threading     | <input type="radio"/> D Process-level threading |

5. The ability of a thread to run on a different core of a multi-core processor is known as:

- |  |  |
|--|--|
| <input type="radio"/> A Thread Serialization | <input type="radio"/> B Parallel execution |
| <input type="radio"/> C Thread affinity      | <input type="radio"/> D Thread scheduling  |

6. Which operation involves saving the state of the current thread and restoring the state of a different thread for execution?

- |  |   |
|--|---|
| <input type="radio"/> A Thread Pooling         | <input type="radio"/> B Thread Deadlock                       |
| <input type="radio"/> C Thread Synchronization | <input type="radio"/> D Thread Switching or Context switching |



7. What is a race condition in the context of multithreading?

- |                            |  |                            |  |
|----------------------------|--|----------------------------|--|
| <input type="checkbox"/> A | A condition where multiple threads are unable to access shared resources | <input type="checkbox"/> B | A condition where the execution order of threads affects the final outcome |
| <input type="checkbox"/> C | A condition where multiple threads are synchronized perfectly            | <input type="checkbox"/> D | A condition where a thread is blocked indefinitely                         |

8. Which synchronization mechanism is used to prevent multiple threads from accessing shared resources simultaneously?

- |                            |                   |                            |                  |
|----------------------------|-------------------|----------------------------|------------------|
| <input type="checkbox"/> A | Thread migration  | <input type="checkbox"/> B | Mutual exclusion |
| <input type="checkbox"/> C | Context switching | <input type="checkbox"/> D | Thread affinity  |

**Answer Key**

- |      |      |      |      |
|------|------|------|------|
| 1. d | 2. d | 3. d | 4. a |
| 5. c | 6. d | 7. b | 8. b |