

BB

I hereby pledge that I will strictly adhere to academic integrity codes and the work done on this examination is solely my own and I will not receive/give any help from/to anybody or source during this examination.

- a) Despite second generation computers have many advantages it comes with a speed trade-off. While first generation computers use all the resources they have to complete computations (Batch systems), the second generation systems which are time-sharing systems became slower and more expensive compared to first gen. ones since they share the hardware between users.
- b) Operation System calls are function calls. Since they don't interrupt the program flow of operating system unexpectedly or because of a failure we can call them neither interrupts nor traps. They are just function calls provided by operating systems.
- c) When `thread_yield()` called, it notifies thread scheduler that it is ready to be suspended by scheduler. Scheduler can ignore it or give the resources used by the old thread to a new waiting one if any exists by checking if there is any threads waiting, if there are multiple of them, which one has higher priority, then runs it.