

1. a) Notes• **Privileged Instructions**

- Is the instruction that can run only in **kernel mode**
- Attempt at execution in **user mode** → treated as an illegal operation & will not run.

• **Trap**

- Is a special hardware instruction
- Is a type of synchronous interrupt ^[1]
- Is caused by an exceptional condition ^[1]
- Usually results in a switch to **kernel mode** → Operating system performs action → Returns control to original process

• **Trap Instruction**

- Is executed when a user wants to invoke a service from the operating system (i.e. reading hard drive) in **user mode**

• **User Mode**

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• **Kernel Mode**References

- a) Wikipedia, Trap (computing), link