2C30348

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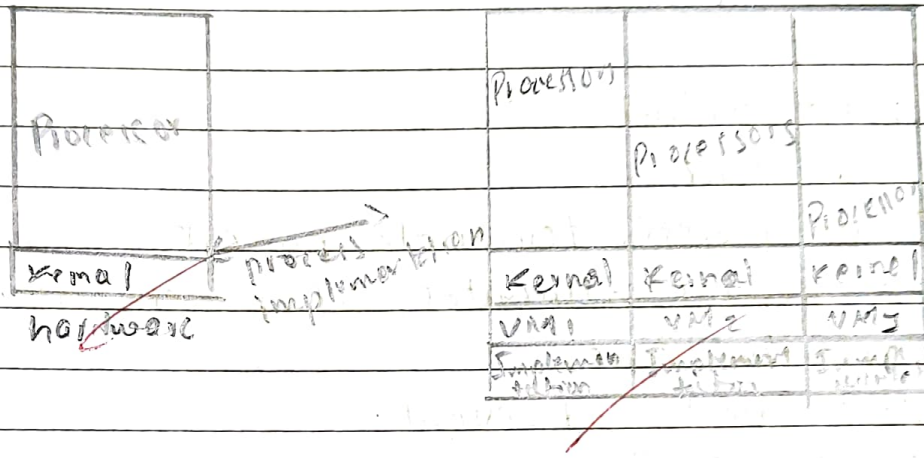
2a) Virtual machines use the hardware part of the system in executing environment.
In this illusion of the sys part of the systems in executing the environment will be held in private computer.



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25) Mainly system calls are categorized in 6 various parts.

* Process Management control.
* File management
* Information management
* Device managment
* Communications
* Protections

1) Process control
* End, load
* Create process, terminate process
* Get process attributes, set process attributes
* Wait for time
* Wait event, End event.
* Allocate & free memory.

Explain in detail.

2) File managment.
* Create file, delet file
* Open, close.
* Read, write, reposition
* get file attributes, set file attributes
* logically detach or attach files.

3) Device management.
* Request device, delete device
* Read, write, reposition
* get device attributes, set device attributes
* logically detach or attach files.

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4) Information Managment
* Start load
* Read, write, reposition.
* Get information attributs
* Set information attributs.

5) Communications:
* Recive, send.
* Read, write, reposition
* Communicate.

6) Protection:
* It protects the system from virus
* It protects the device from unknown.

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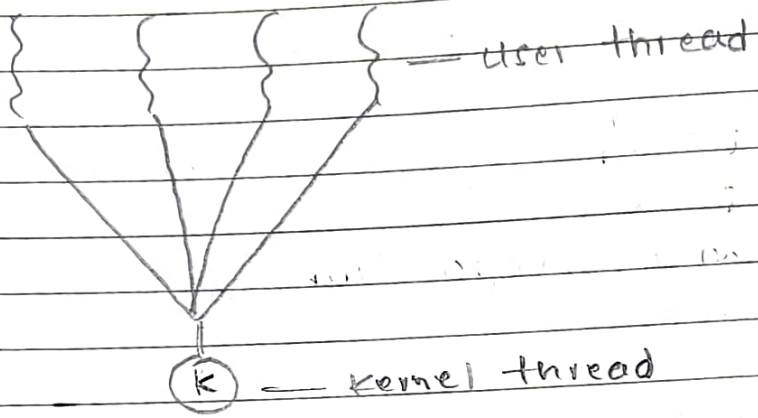
3b. Multi-Threading models-

① Many to One model



* The many to one model maps many user-level threads to one Kernel thread.
* Thread managment is done by the thread library in user one to one module space, so it is effecent but the entire process will block the thread if a if a thread makes a blocking system call)
* Also because only one thread can access the Kernel at a time, multiple threads are unable to run in parallel on multi processors

One to One model

* The one to one mod model maps each user thread Kernel thread
* It provides more concurrency than the many to one model by allowing another thread to run when a thread makes a blocking system call;

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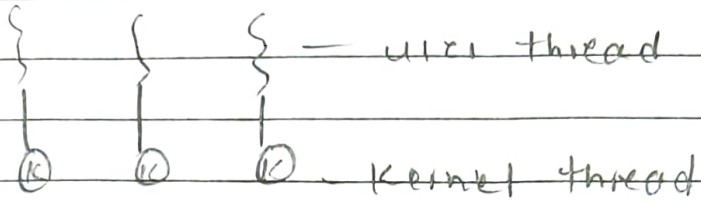
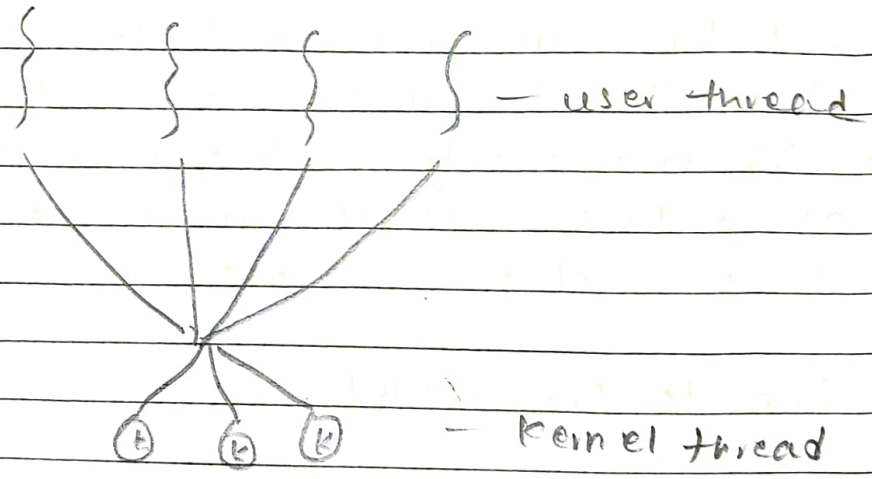
It also allow multiple thread to run in parallel on multiprocessors

* The only draw back to this model is that creating user thread requires creating the corresponding kernel thread



Many to many

The many to many model multiples many user level threads to smaller or equal number of kernel thread



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Quiz

1. a) ✓
2. a) ✓
3. b) ✓
4. b) ✓
5. d) ✗