

## Test - 01

## Module - 1

## 2a. Virtual Machine

Virtual Machine is a System Software and Virtual Interface between computer user and computer hardware.

- \* Virtual machine ab is that a abstracts the hardware. ~~to the user.~~

It create Virtual environment to the process as it has its own processor and own memory.

- \* It helps to maintain the time process and the interface b/w software system and hardware.

- \* VMware was first introduced by IBM in 1972

		process	process	process
process				
		vm <sub>1</sub>	vm <sub>2</sub>	vm <sub>2</sub>
kernel		kernel	kernel	kernel
<del>kernel</del>		Virtual machine instructions		
Hardware		hardware		

VM-

Virtual machine

- In Virtual Machine the host is the Virtualization is the host for the ~~processors~~ VM. Virtualization is the main host for the virtual machine and other all VM are called as guest processors in the process.



## VM - Virtual Machine

Host Virtualization is the main host of VM. In the Virtual Machine the all the VMs are called Guest OS.

### Virtual Machine

Virtual machine is that which is virtually creates an illusion ~~code~~ so that the OS assumes that it has its own memory, process and it has its own processor and kernel for it.

2) System call is process of giving commands for the process. It is user interface to manage the process by the user.

- \* In system calls we mainly 5 types
  - \* Job process control
  - \* File/directory management
  - \* Device management
  - \* Information maintenance
  - \* Communication

3) process control

In process control we input, access the data and it has `sleep()`, `enter()`, `write` and `exit()` commands in the process control.

## 2) file management

file management refers to the way the system calls it manages the file process in the operating system.

## 3) Device management in device management

## 4) information maintenance

## 5) Communications



## Module - 2

3 a) Inter process Communication is the process is done by it self and process is been shared by them selfs in inter process communication we have two methodes

- 1) Independent Communi-
- 2) ~~Co~~ Coendent

1) Independent :- it can't affected by other and also it will not be effected by it self its independent.

2) ~~Co~~ Coendent - It is affected by the other entities and also effects by it self.

\* Inter process Communication it share the memory and also passes the messages to the other entities so the inter process will be clear and its the process has been communicated between the process.

\* Inter process Communication is mainly for message passing and sharing process to the memory.

\* Inter process is the communication between the two threads of same process



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Message Passing - In Interprocess Communication we see that the message has passing through the entities and the messages are being shared ~~what~~ the process. In Interprocess Communication it make message passing whether the process has been completed by the processor and inter process ~~an~~ operation in the process.

Shared Memory - In, by the shared memory we can share the memory or space to the other entity for the process, it is done in the Interprocess Communication, it communicates with other entities. It shared the messages to the other thread of the inter process communication.



3b

# Multi-threading models

Multi-threading is the process between user node & kernel

We have two types in Multi-threading

User-node - In user can't access the nodes directly and the operating system has the direct access to the nodes

kernel node - In kernel it access the node without any interrupt or any other disturbance

In Multi-threading, we have 3 types

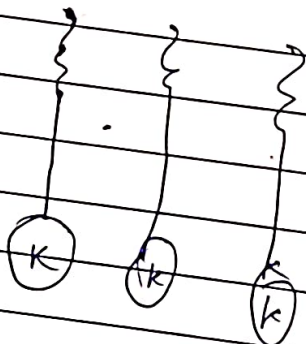
one to one

one to many

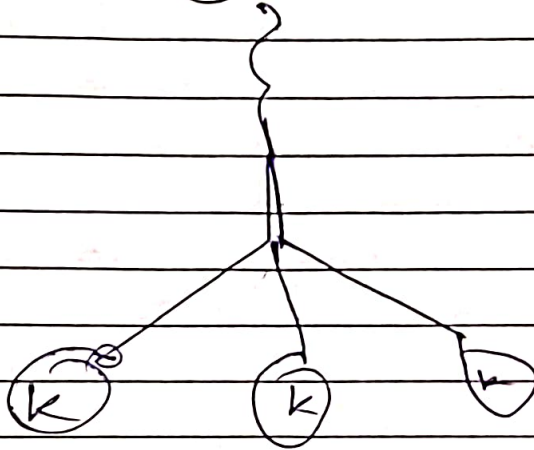
many to many

One to One

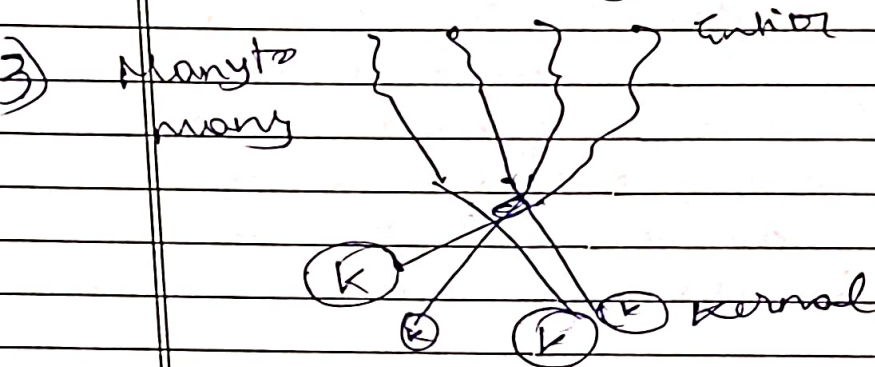
One to one threading the node is directly pass to the kernel to the destination. It can't be interrupted or disturbed easily.



## 2) One to many



One to many is the process can be one node many kernels. It gives the process to many kernel. It has no chance of getting deleted by any chance.



- \* It has easy to access the for reach the user.
- \* It has many branches for it so if a single node is destroyed it can complete its process easily without any interrupt.



# Quiz

1. a ✓

2. a ✓

3. b ✓

4. b ✓

5. b ✓