

- Q1. Explain the dual mode operation of operating system.
- Q2. What is Operating System? Explain Multiprogramming and time sharing systems.
- Q3. Explain implementation of interprocess communication using shared memory / message passing approaches.
- Q4. Explain process state with neat diagram.
- Q5. With a neat diagram explain concept of virtual machines.
- Q6. What are System calls explain its types.

Solns

Soln 1:

Dual Mode: User Mode & Kernel Mode
 user handles Kernel handles

Soln 2:

Multiprogramming :- Multiple programs execute at same time

Multitasking :- Multiple tasks are executed by same resource

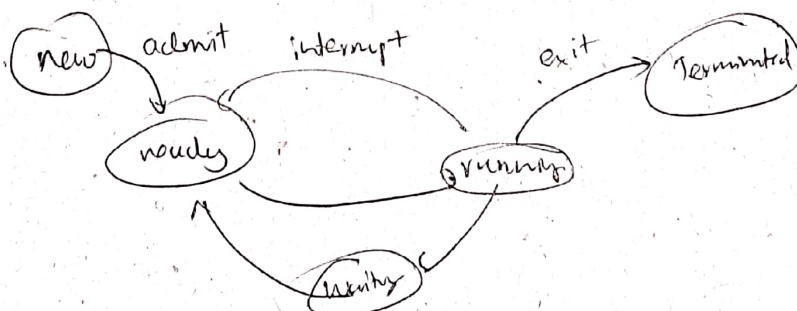
Time sharing :- Time is shared b/w multiple Resource & process

Soln 3:

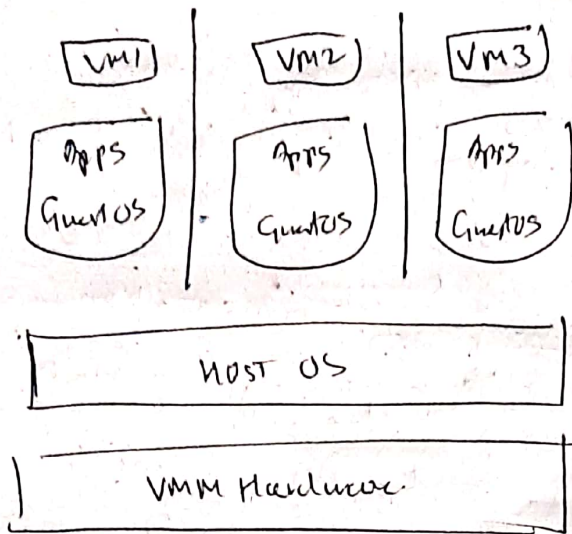
Shared memory :- Two or more process access same memory

Message passing :- Allows to share memory without same address space, but same queue.

Soln 4:



Soln 5: Virtual Machines



Soln 6: System Calls

- Process Control
- File Mgmt.
- Device Mgmt
- Information Mgmt
- Communication

APIs

open(), write(), read(), close().