UNIT 1:

1. Basic elements of OS
2. **Define interrupts and its types**
3. Multiprocessing vs time sharing systems
4. **Evolution of OS**
5. Describe memory hierarchy with a neat sketch
6. System components of an OS
7. Write a short note on memory hierarchy, cache memory, direct memory access
8. Different I/O communication technique

UNIT 2:

1. **Five states in process model**
2. Describe various control tables w.r.t OS structure
3. **Process states**
4. Describe process and process states
5. Mutual exclusion and it’s conditions
6. Two state, **five state**, two suspend state process models
7. **Types of threads, thread states with transition diagram, implementation of threads**
8. Process creation and termination
9. Explain process description
10. Attributes of process control information

UNIT 3:

1. **Mutual exclusion, semaphores**
2. **Scheduling algorithms**
3. **Challenges in multiprocessing and multiprogramming**
4. **Deadlocks**

UNIT 4:

1. File organization
2. **Explain memory partitioning. Describe any 2 methods of memory partitioning**
3. Linux memory management
4. **Virtual address translation in paging system, inverted page table structure**
5. Page replacement algo
6. Memory allocation strategies
7. Windows memory management

UNIT 5:

1. **File organization and access**
2. Relocation and its implementation
3. **Disk scheduling**
4. File management
5. File allocation methods
6. Directory implementation
7. Buffering and Buffering schemes