**UNIT-1**

1. Define the term Operating system. List and discuss the typical Functions of operating systems.
2. Explain the computer organization with neat sketch.
3. List out and discuss the major activities of an operating system with regard to memory management and process management.
4. Types of System calls
5. Abstract view of Operating system.
6. Dual Mode operation of an Operating system.
7. Operating system Services
8. Concepts of virtualization, virtual machines, their implementation and benefits in details.
9. List out and discuss the major activities of an operating system with regard to Disk management and File management.
10. In what ways is the modular kernel approach similar to the layered approaches.
11. Compare and Contrast MS-DOS layer structure and UNIX system structure with neat sketch.

UNIT-2

1. Define the following

process ,program. context switching

1. Define process state. Explain process state transition diagram
2. Discuss about process control block with neat sketch.
3. Long term ,medium term and short term schedulers advantages ,scheduling queues
4. Types of Communication models in Interproces communication(IPC)
5. Discuss about scheduling criteria
6. **Disscuss different scheduling algorithms also practice problems on these algorithms and gantt chart, calculating waiting time,turna round time, average waiting time and turn around time.**

**(**FCFS,SJF,Round Robin and Priority) both pre-emptive and non pre-emptive with arrival times,if scheduling criteria not mentioned then consider as non pre-emptive and if time quantum not yet mentioned for Round robin then consider default time quantuam as 3

1. Illustrate operations on process(create,execute and terminate)
2. Discuss producer-consumer problem
3. Multi thread model
4. Explain different thread types(user & kernel)
5. Summarize multithreading models(one-to-one,one-to-many,many-to-many)

Unit -3 :**Completed concepts**

Instructions to the Students

* Refer the text book (galvin),notes,and slides
* Neatly draw the all diagrams with scale and pencil
* Present the paper neatly(required headings and sub headings)
* Can not evaluate if you are writing general definitions by search googe