

LESSON PLAN 2023-24

Name: Ms. Sunita Arora

Department: Computer Science

Class: B.Sc.-Computer Sc-4th Sem.

Paper: OPERATING SYSTEMS

Month: January

Operating system functions and characteristics, historical evolution of operating systems, Real time systems, Distributed systems, Operating Systems as an extended machine and resource manager:
Operating systems Classification: Operating systems modes and system calls;

Month: February

Operating systems architecture. Methodologies for implementation of O/S service system calls, system programs. Process Management: Process concepts, Process states and Process Control Block. CPU Scheduling: Scheduling criteria, Levels of Scheduling, Scheduling algorithms, Multiple processor scheduling. Class Test.

Month: March

Deadlocks: Deadlock characterization, Deadlock prevention and avoidance, Deadlock detection and recovery, practical considerations.

Concurrent Processes: Critical section problem, Semaphores, Classical process co-ordination problems and their solutions, Inter-process Communications.

Month: April

Storage Management: memory management of single-user and multiuser operating system, partitioning, swapping, paging and segmentation, virtual memory, Page replacement Algorithms. Thrashing.

Device and file management: Disk scheduling, Disk structure, Disk management, File Systems: Functions of the system, File access and allocation methods, Directory Systems: Structured Organizations, directory and file protection mechanisms.