Paper Code : **US04CBCA27**	**Total Credit: 4**
Title of Paper: **Operating Systems**	

Lectures per week   : 4   **Exam Duration: 3hrs**
All units carry equal weightage.

Unit	Description in detail	Weightage(%)
I	**Introduction and Scheduling** Introduction to Operating System, Operating System Services, Different types of Operating Systems: Real time, Time sharing, Distributed and Multiprogramming. OS Structure – Simple Structure, Layered Approach, Microkernel. CPU Scheduling: Introduction to process, process control block, process scheduling FCFS Scheduling, SJF scheduling, Priority scheduling, Round Robin scheduling	25%
II	**Memory Management** Memory Management: Concept, Basic memory management techniques:, Swapping, Demand Paging 1) The Optimal Page Replacement Algorithm 2) The LRU Page Replacement Algorithm 3) The FIFO Page Replacement Algorithm	25%
III	**Process Synchronization, Deadlocks and Introduction to Linux** Introduction to Cooperating process Process Synchronization, Critical Section Problem Two process solution Deadlock and characterization Introduction to Linux System Features of Linux	25%
IV	**Basic Linux commands** Basic Commands: login, logout, date, man, pwd, who, dir, ls, cd, mkdir, rmdir,wc,echo Use of Wild card characters Types of FAP, use of chmod command Basic commands like cp, mv, rm, rev, file redirection, grep, cut, paste, find sort commands with example Introduction to shell script: execution of it, shell script variable, expr, test commands Control structure: if, if..else, case structure Iteration: while, for construct, break, continue, exit commands	25%

Basic Text & Reference Books :-

1. Andrew S. Tanenbaum: Operating System deign & Implementation, Prentice Hall International
2. James Peterson and Abraham Silberschatz: Operating System Concept, Addition Wesley
3. Bryan Pfaffenberger - Linux Commands Instant reference , BPB Publication
4. Sumitabha Das - UNIX , Concepts and Applications – Tata McGraw-Hill Publications
5. Advanced Linux Programming – Samuel, Techmedia Publications