

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc – Information Technology (Integrated)
Semester: IV
Syllabus with Effect from: June-2013

Paper Code: PS04CIIT01	Total Credit: 3
Title Of Paper: Operating Systems - II	

Unit	Description in detail	Weightage (%)
I	Memory Management Techniques: Basic Memory Management Address Binding Logical versus Physical Address Space Dynamic Loading Dynamic Linking Swapping Contiguous Memory Allocation Paging Segmentation	25%
II	Virtual Memory Management Concept of virtual memory management. Demand Paging. Page replacement. Basic page replacement. Page replacement algorithm: FIFO page replacement Optimal page replacement LRU page replacement Additional Reference Bit Second-Chance Enhanced Second Chance.	25%
III	File Management File system structure File system implementation: Partitioning and mounting, Virtual file system. Directory implementation: Linear list and Hash table. Allocation Methods: Contiguous, Linked, Indexed. Recovery: Consistency checking, Log structured file systems, Backup and Restore.	25%
IV	I/O Management Introduction to I/O system I/O Hardware: Polling, Interrupts, DMA Application I/O inters face. Kernel I/O subsystem.	25%

Basic Text & Reference Books:-

- Operating system concepts, 8th edition by Abraham Silberschatz , Peter B. Galvin, Greg Gagne .Publisher - Wiley

