ACADEMIC CURRICULUM PLAN FOR 4TH SEMESTER Session-2023(S)
Sub-Operating System & System Programming
Branch-Information Technology

Discipline: Information Technology	Semester: 4th	Name of the Teaching faculty: ManalisaGiri
Subject: Operating System	No.of Days per week class allotted : 04	Semester from date: 14/02/2023to 23/05/2023
	Class Day	No. of weeks: 15
		Theory / Practical Topics
1st week	1st	Introduction
	2nd	Objectives of operating system
	3rd	explain functions of operating system.
	4th	Evolution of operating system
2nd week	1st	Structure of operating system.
	2nd	Process management
	3rd	Process concept,
	4th	Process control
3rd week	1st	interacting processes
	2nd	Inter process messages.
	3rd	Process scheduling,
	4th	Quiz test 1st and 2nd chapter
4th week	1st	job scheduling.
	2nd	Process synchronization,
	3rd	Semaphore.
	4th	Principle of concurrency,
5th week	1st	Types of scheduling.
	2nd	Types of scheduling.
	3rd	Types of scheduling.
	4th	Memory management
6th week	1st	Memory allocation techniques
	2nd	Contiguous memory allocation
	3rd	Noncontiguous memory allocation
	4th	Swapping
7th week	1st	Paging
	2nd	Segmentation,
	3rd	Virtual memory using paging,
	4th	Demand paging,
8th week	1st	page fault handling.
	2nd	Quiz test 3rd semester
	3rd	Device management
	4th	Techniques for device management
9th week	1st	Dedicated, shared and virtual.
	2nd	Device allocation considerations i/o traffic control
	3rd	I/o schedule, i/o device handlers.
	4th	Spooling.

10th week	1st	Dead locks
	2nd	Concept of deadlock.
	3rd	System model, Dead lock detection
	4th	Resources allocation graph
11th week	1st	Methods of deadlock handling
	2nd	Recovery &prevention
	3rd	Explain banker's algorithm
	4th	safety algorithm
12th week	1st	File management
	2nd	File organization
	3rd	Directory & file structure,
	4th	Sharing of files
13th week	1st	File access methods,
	2nd	File systems, reliability
	3rd	Allocation of disk space
	4th	File protection, secondary storage management.
14th week	1st	System programming
	2nd	Compiler
	3rd	functions of compiler
	4th	Compare compiler and interpreter.
15th week	1st	Seven phases of compiler,
	2nd	Seven phases of compiler,
	3rd	brief description of each phase.
	4th	brief description of each phase.

Signature of the faculty