LESSON PLAN

SUB: OPERATING SYSTEM, THEORY-1
BRANCH:- COMPUTER SCIENCE & ENGINEERING
SEMESTER:4TH

NAME OF FACULTY: PRAFULLA KUMAR MUNDA(LECT.IN CSE)

GOVERNMENT POLYTECHNIC, BHADRAK

Session:2024-2025

HOD ,CSE

Academic Co-ordinator

Academic Co-ordinator

Principal
Govt. Polytechnic, Bhadrak

Discipline: Computer Science and Engineering	**Semester: 4th, Summer/2025**	**Name of the Faculty:** Prafulla Kumar Munda, Lecturer stage -II **Email ID:**prafulla.guia@gmail.com
Subject: Operating System,Theory-1	**No. of Days/week:** 04	**Start Date:** 4/02/2025 **End Date:** 17/5/2025

Week	Class Day	Theory Topics
1st	1st	Introduction ,Objectives and functions of operating system.
	2nd	Evolution of Operating system
	3rd	Structure of operating system
	4th	Process concept, process control
2nd	1st	Interacting processes, inter process messages, Implementation issues of Processes.
	2nd	Process scheduling
	3rd	Job scheduling
	4th	Process synchronization
3rd	1st	Process synchronization(Cont..)
	2nd	Semaphore
	3dr	Principle of concurrency
	4th	Types of scheduling
4th	1st	Types of scheduling (Cont..)
	2nd	Revision and Question answer Discussion
	3dr	Quiz Test
	4th	Memory allocation Techniques, Contiguous memory allocation
5th	1st	Non-contiguous memory allocation, Swapping
	2nd	Paging
	3rd	Segmentation
	4th	Virtual memory using paging,
6th	1st	Demand paging
	2nd	Page fault handling
	3rd	Revision and Question answer Discussion
	4th	Techniques for Device Management: Dedicated
7th	1st	Techniques for Device Management: virtual
	2nd	Device allocation considerations I/O traffic control
	3rd	I/O Schedule
	4th	I/O Device handlers.

8th	1st	SPOOLING.
	2nd	Revision and Question answer Discussion
	3rd	Concept of deadlock, System Model
	4th	Dead Lock Detection
9th	1st	Resources allocation Graph
	2nd	Methods of Deadlock handling
	3rd	Dead lock avoidance
	4th	Recovery from deadlock
10th	1st	Bankers Algorithm
	2nd	Safety Algorithm
	3rd	Revision and Question answer Discussion
	4th	File organization, Directory& file structure
11th	1st	Sharing of files
	2nd	File access methods
	3rd	File systems, reliability
	4th	Allocation of disk space
12th	1st	Allocation of disk space(cont...)
	2nd	File protection
	3rd	Secondary storage management
	4th	Secondary storage management(Cont..)
13th	1st	Hard Disk Structure and its performance
	2nd	Hard Disk Scheduling Algorithms
	3rd	Revision and Question answer Discussion
	4th	Quiz Test
14th	1st	SYSTEM PROGRAMMING: Concept of system programming and show Difference from Application Complier
	2nd	Compiler, functions of compiler ,Compare compiler and interpreter
	3rd	Seven phases of compiler, brief description of each phase
	4th	Seven phases of compiler, brief description of each phase(Cont..)
15th	1st	Revision and Question answer Discussion
	2nd	Previous End semesters end semester Question answer Discussion
	3rd	Previous End semesters end Semester Question answer Discussion
	4th	Previous End semester send semester Question answer Discussion

4/2/25