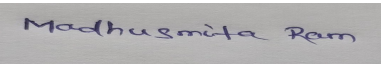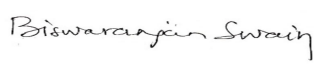# PNS School Of Engg. & Tech. Marshaghai, Kendrapara
LESSON PLAN
Session (2025 - 2026)

Discipline: Computer Science & Engineering	Semester-4th	**Name of the faculty :** Madhusmita Ram
Subject: Operating System (Th-1)	**No. of Days/Week: 05**	**Start Date:22/12/2025** **End Date:18/04/2026**

Week	Class Day	Theory Topics
1ST	1st	**1.Operating System (INTRODUCTION)**
	2nd	Overview of Operating System
	3rd	Basic Concepts
	4th	Functions of OS
	5th	UNIX/LINUX Architecture
2nd	1st	Components of Linux
	2nd	Kernel overview
	3rd	Revision and Question answer Discussion
	4th	**2.Process Management**
	5th	Process concepts
3rd	1st	operations on processes
	2nd	IPC
	3rd	Process Scheduling
	4th	Multi-threaded programming
	5th	Memory management
4th	1st	Memory allocation
	2nd	Swapping
	3rd	Paging
	4th	Segmentation
	5th	Virtual Memory
5th	1st	various faults
	2nd	Deadlock(Introduction)
	3rd	concept of deadlock
	4th	Revision and Question answer Discussion
	5th	**3.File management**
6th	1st	Concept of a file
	2nd	access methods
	3rd	directory structure
	4th	Single-level directory
	5th	Two-level directory
	1st	Tree-structured directory
	2nd	Acyclic graph directory

7th	3rd	General graph directory structure	
	4th	file sharing and protection	
	5th	file system mounting	
8th	1st	File system structure and implementation	
	2nd	directory implementation	
	3rd	Free space management	
	4th	Efficiency & performance	
	5th	Different types of file systems	
9th	1st	The Architecture of File System	
	2nd	File access methods, Index sequential method	
	3rd	Allocation of disk space	
	4th	File protection	
	5th	Secondary storage management	
10th	1st	Revision and Question answer Discussion	
	2nd	**4. I/O System**	
	3rd	Mass storage structure(overview)	
	4th	disk structure	
	5th	disk attachment	
11th	1st	disk scheduling algorithms	
	2nd	Swap space management	
	3rd	RAID types	
	4th	Revision and Question answer Discussion	
	5th	**5. OS Security**	
12th	1st	Authentication	
	2nd	Access Control	
	3rd	Access Rights	
	4th	System Logs	
	5th	Revision and Question answer Discussion	

Madhusmita Ram   Biswaranjan Swain

SIGNATURE OF LECTURER   **SIGNATURE OF H.O.D**