GANAPATI INSTITUTE OF ENGINEERING AND TECHNOLOGY(POLYTECHNIC)
Mathasahi , Jagatpur , Cuttack - 754200

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
LESSON PLAN
Session (2025-2026)(S)

Discipline: Computer Science & Engineering	Semester:4th, Summer/2025	Name of theTeaching Faculty: Miss. Smaranika Moharana
Subject: OPERATING SYSTEM Theory-01	No. Of Days/Week:03	Start Date:22.12.2025 End Date:18.04.2026

Week	ClassDay	Theory Topics
1st	1st	**UNIT-1: Overview of Operating System** Introduction of OS ,Basic concepts
	2nd	Unix/Linux Architecture
	3rd	Unix/Linux Architecture
2nd	1st	Kernel, services and system call
	2nd	System Programs
	3rd	**UNIT-2: Process Management** Process Concept
3rd	1st	Operations on Process
	2nd	IPC
	3rd	Process Scheduling
4th	1st	Multi Threaded Programming
	2nd	Multi Threaded Programming
	3rd	**UNIT-3: Memory Management** Memory allocation, Swapping
5th	1st	Paging
	2nd	Segmentation
	3rd	Virtual memory, Various Faults
6th	1st	**UNIT-4: File Management** File and Concept of a File
	2nd	File Access methods
	3rd	Directory Structure, File System Mounting

	2nd	File System Structure and Implementation
	3rd	Directory Implementation, Free Space Management
8th	1st	Efficiency and performance
	2nd	Different types of file system
	3rd	**UNIT-5: I/O System** Mass Storage Structure –overview
9th	1st	Disk structure
	2nd	Disk structure
	3rd	Disk attachment
10th	1st	Disk Scheduling algorithm
	2nd	Swap Space management
	3rd	RAID TYPE-RAID-0
11th	1st	RAID TYPE-RAID-1
	2nd	RAID TYPE-RAID-5
	3rd	**UNIT-6: Dead Lock** Concept of DeadLock
12th	1st	Resources
	2nd	Dead Lock Prevention: Banker Algorithm and Safety Algorithm
	3rd	Dead Lock Prevention: Banker Algorithm and Safety Algorithm
13th	1st	Ostrich Algorithm
	2nd	Dead Lock Detection and Recovery
	3rd	Dead Lock Prevention
14th	1st	Unit-7: OS Security Authentication
	2nd	Access Control
	3rd	Access Right
15th	1st	System Logs
	2nd	Revision
	3rd	Discussion of Previous Year Question Answer

Sign. of faculty   22.12.25

Sr. Lecturer   22-12-25
Dept. of Computer Science & Engg
Sign of Sr. Lect.

Sign of Principal   22/12/25