



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

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
LESSON PLAN**

Session (2025-2026)

Discipline: Computer Science & Engineering	Semester: 6th, Summer/2025	Name of the Teaching Faculty: Mr. Suraj kumar Bhujbal
Subject: Cloud Computing Theory-03	No. Of Days/Week: 04	Start Date: 22.12.2025 End Date: 18.04.2026

Week	Class Day	Theory Topics
1st	1st	Unit-1: Introduction to Cloud Computing Historical development
	2nd	Vision of Cloud Computing
	3rd	Characteristics of Cloud Computing
	4th	Characteristics of Cloud Computing
2nd	1st	Unit-2: Cloud Computing Architecture Introduction Cloud Reference Model
	2nd	Types of Clouds
	3rd	Cloud Interoperability and standards Cloud computing Interoperability use cases
	4th	Role of standards in Cloud Computing environment
3rd	1st	Unit-3: Scalability and Fault Tolerance Introduction Scalability and Fault Tolerance Cloud solutions Cloud Ecosystem
	2nd	Cloud Business process management Portability and Interoperability Cloud Service management
	3rd	Testing under Control Cloud Offerings
	4th	Cloud service Controls Virtual desktop Infrastructure
4th	1st	Unit-4: Cloud Management and Virtualization Technology Create a virtualized Architecture.

	2nd	Cisco DataCentre Network architecture
	3rd	Storage Provisioning Asset Management Concep tof Map Reduce Cloud Governance
	4th	LoadBalancing High Availability DisasterRecovery
5th	1st	Unit-5:Virtualization Virtualization Virtualisation benefits
	2nd	Desktop and ApplicationVirtualisation NetworkVirtualisation
	3rd	LocaldesktopVirtualisation Desktopasa service
	4th	QUIZTEST
6th	1st	ServerVirtualisation
	2nd	Block and File level StorageVirtualisation
	3rd	VirtualMachineMonitor
	4th	InfrastructureRequirements
7th	1st	VLANandVSAN
	2nd	Unit-6:Cloud Security CloudSecurityFundamentals
	3rd	Cloudsecurityservices
	4th	Cloudsecurityservices
8th	1st	DesignPrinciples
	2nd	SecureCloudsoftwarerequirements
	3rd	PolicyImplementation
	4th	CloudComputingSecurityChallenges
9th	1st	Unit-7:Cloud Computing Security Architecture
	2nd	ArchitecturalConsiderations
	3rd	InformationClassification
	4th	VirtualPrivateNetworks
10th	1st	PublicKeyandEncryptionKeymanagement
	2nd	Digitalcertificates
	3rd	Keymanagement
	4th	MemoryCards

11th	1st	Implementing Identity Management
	2nd	Controls and Autonomic System
	3rd	Unit-8: Market Based Management of Clouds
	4th	Cloud Information Security vendors
12th	1st	Cloud Federation, characterization
	2nd	Cloud Federation stack
	3rd	Third Party Cloud service
	4th	Case study
13th	1st	Unit-9: Hadoop
	2nd	Introduction
	3rd	Data Source
	4th	Data storage and Analysis
14th	1st	Comparison with other system
	2nd	Quiz Test
	3rd	Revision
	4th	Revision
15th	1st	Discussion of Question Answer
	2nd	Discussion of Question Answer
	3rd	Discussion of Question Answer
	4th	Discussion of Question Answer

S. B. Jaiswal
19.12.25
Sign of faculty

S. P. Pathan
19.12.25
Sign of Computer Science & Engg.
Sign of SM Lect.

Principal
19.12.25
Sign of Principal
GIET (Polytechnic)
Jagatpur, Cuttack