UNIT – IV
Enhancing Cloud Computing Environments
Using a Cluster as a Service - Related Work, RVWS Design ,Cluster as a Service: The Logical Design, Proof of Concept, Secure Distributed Data Storage in Cloud Computing - Cloud Storage: from LANs TO WANs, Technologies for Data Security in Cloud Computing ,Open Questions and Challenges.

UNIT – V
PLATFORM AND SOFTWARE AS A SERVICE - Integration of Private and Public Clouds: Technologies and Tools for Cloud Computing, Aneka Cloud Platform, Aneka Resource Provisioning Service, Hybrid Cloud Implementation, Visionary thoughts for Practitioners.
An Autonomic Cloud Engine: Comet Cloud Architecture, Autonomic Behaviour of Comet Cloud, Overview of Comet Cloud-based Applications, Implementation and Evaluation-Systems' Cloud-Based Solutions for
 Business Applications: What Enterprises Demand of Cloud Computing, Dynamic ICT Services, Importance of Quality and Security in Clouds, Dynamic Data Centre—Producing Business-ready, Dynamic ICT Services

UNIT – VI
Understanding Scientific Applications for Cloud Environments: A Classification of Scientific Applications and Services in the Cloud, SAGA-based Scientific Applications that Utilize Clouds
The Map Reduce Programming Model and Implementations: Map Reduce Programming Model, Major Map Reduce Implementations for the Cloud, Map Reduce Impacts and Research Directions.
UNIT – VII
Managing the Cloud: Administrating the cloud, Management Responsibilities, life cycle management, cloud management products, Standards.
Cloud Security: Securing the cloud, security boundary, security mapping, securing data-brokered cloud storage access, storage location and tenancy, Encryption.
Introducing service oriented architecture.

UNIT - VIII
Moving Applications to cloud: Applications in cloud, Functionality mapping, application attributes, cloud service attributes, system abstraction,.
Working with cloud based storage: cloud storage definition, unmanaged cloud storage, managed cloud storage, creating cloud storage containers, cloud backup types.
Working with mobile devices and web services: Feature phones and the cloud, using smart phones with cloud-Android, iphone, MobileMe. Understanding mobile web service types-mobile interoperability, Performing service discovery, using SMS.

Learning Resources

Text Books:

1. Rajkumar Buyya ,James Broberg ,Andrzej Goscinski CLOUD COMPUTING Principles and Paradigms, Wiley Publishing inc; 1 edition
2. Barrie Sosinsky Cloud Computing Bible ,wiley publishing inc 1 edition.

Reference Books:

1. Michael Miller, Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online, Que Publishing, August 2008.
2. Judith Hurwitz, Robin Bloor , Marcia Kaufman ,Fern Halper **Cloud Computing for Dummies**. Wiley publishing inc.; For Dummies; 1 edition
3. Cloud Application Architecture- George Reese, O'Reilly Media; 1 edition
4. Haley Beard: Cloud computing best practices, second edition, Emereo Pty Ltd; 2 edition