CLOUD SECURITY AND PRIVACY
(Professional Elective –V)

Course Code	20IT4703B	Year	IV	Semester	I
Course Category	PE 5	Branch	IT	Course Type	Theory
Credits	3	L-T-P	3-0-0	Prerequisites	Cloud Computing
Continuous Internal Evaluation :	30	Semester End Evaluation:	70	Total Marks:	100

	Course Outcomes	Blooms Taxonomy Level
Upon Successful completion of course, the student will be able to		
CO1	Understand the basic components of cloud & Security in the cloud	L2
CO2	Illustrate the Infrastructure Security, Data Security, storage and security management in the cloud.	L3
CO3	Understand the concepts of Identity and Access Management	L2
CO4	Illustrate the privacy issues in could environment	L3

Contribution of Course Outcomes towards achievement of Program Outcomes &Strength of correlations(3:Substantial,2: Moderate,1:Slight)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3												3	
CO2	3												3	
CO3	3												3	
CO4	3												3	

Syllabus		
Unit No	**Contents**	**Mapped CO**
I	**What Is Cloud Computing:** Cloud Computing Defined, The SPI Framework for Cloud Computing, Relevant Technologies in Cloud Computing, The Traditional Software Model,The Cloud Services Delivery Model, Cloud Deployment Models, Key Drivers to Adopting the Cloud, The Impact of Cloud Computing on Users, Governance in the Cloud, Barriers to Cloud Computing Adoption in the Enterprise.	**CO1**
II	**Infrastructure Security:** Infrastructure Security: The Network Level, Infrastructure Security: The Host Level, Infrastructure Security: The Application Level **Data Security and Storage:** Aspects of Data Security, Data Security Mitigation, Provider Data and Its Security	**CO1 CO2**
III	**Identity and Access Management:** Trust Boundaries and IAM, Why IAM?,IAM Challenges, IAM Definitions, IAM Architecture and Practice, Getting Ready for the Cloud, Relevant IAM Standards and Protocols for Cloud Services, IAM Practices in the Cloud, Cloud Authorization Management, Cloud Service Provider IAM Practice	**CO1** **CO3**
IV	**Security Management in the Cloud:** Security Management Standards, Security Management in the Cloud Availability Management, SaaS Availability Management PaaS Availability Management, IaaS Availability Management, Access Control, Security Vulnerability, Patch, and Configuration Management	**CO1 CO2**
V	**Privacy** : What Is Privacy, What Is the Data Life Cycle, What Are the Key Privacy Concerns in the Cloud, Who Is Responsible for Protecting Privacy, Changes to Privacy Risk Management and Compliance in Relation to Cloud Computing, Legal and Regulatory Implications, U.S. Laws and Regulations, International Laws and Regulations	**CO1 CO4**

Learning Resources
Text Books
1. Tim Mather, Subra Kumara swamy,Shahed Latif,"Cloud Security and Privacy: An Enterprise Perspective on Risks and Compliance" O'ReillyMedia; 1edition [ISBN:0596802765], 2009
References
1. RonaldL.Krutz,RussellDeanVines,"CloudSecurity"[ISBN:0470589876],2010.   2. John Rittinghouse, James Ransome, "Cloud Computing" CRC Press; 1 edition [ISBN:1439806802], 2009.   3. J.R.("Vic")Winkler,"SecuringtheCloud"Syngress[ISBN:1597495921]2011 1stEdition,KindleEdition
E- Resources and other Digital Material