CLOUD COMPUTING

Semester	Subject Code	Category	Lecture Hrs		Theory Hrs		Practical		Credits
			Per week	Per Sem	Per week	Per Sem	Per week	Per Sem	
VI		Core Theory-11	6	90	6	90	0	0	4

COURSE OBJECTIVES:

- To understand the working concept of cloud computing.
- To familiarize themselves with the lead players in cloud.
- To appreciate the emergence of cloud as the next generation computing paradigm.

COURSE OUTCOME

successful completion of the course, students will be able to

CO Number	CO STATEMENT	KNOWLEDGE LEVEL (K1-K4)
CO1	Identify the architecture, infrastructure and delivery models of cloud computing	**K1, K2**
CO2	Articulate the main concepts, key technologies, strengths and limitations of cloud computing	**K3**
CO3	The core issues of cloud computing such as security, privacy and interoperability	**K3**
CO4	Evaluating Web tools	**K4**
CO5	Analyzing various Services	**K3.**

Knowledge level: K1-Remember; K2 –Understand; K3-Apply; K4-Analyze.

MAPPING WITH PROGRAMME OUTCOMES

COS	PO 1	PO2	PO3	PO4	PO 5	PO6
CO1	S	S	S	M	M	S
CO2	S	S	S	S	L	M
CO3	S	S	S	S	L	S
CO4	S	S	S	M	S	S
CO5	S	S	S	S	S	S

S-Strong; ***M-Medium;*** ***L-Low***

SYLLABUS

UNIT –I: Cloud Computing Basics **18 Hrs**

Fundamentals –Introduction to Cloud Computing, Definition, Characteristics, Components, Cloud provider, SAAS, PAAS, IAAS and Others- Organizational scenarios of clouds, Administering & Monitoring cloud services-benefits and limitations- Deploy application over cloud- Comparison among SAAS, PAAS, IAAS - Cloud computing platforms – Infrastructure as service(Amazon EC2,Platform as Service: Google App Engine, Microsoft Azure, Utility Computing, Elastic Computing).

UNIT- II : Virtualization **17 Hrs**

Web-Based Application – Pros and Cons of Cloud Service Development – Web services: SOAP and REST, SOAP versus REST, AJAX- Virtual machine technology- virtualization applications in enterprises, Pitfalls of virtualization Multitenant .

Software: Multi-entity support, Multi-schema approach-Multitenance using cloud data stores -Data access control for enterprise applications.

UNIT -III Cloud Infrastructure **17 Hrs**

Centralizing Email communications –collaborating on Schedules – Collaborating on To-Do Lists – Collaborating Contact Lists – Cloud computing for the Community – Collaborating on Group Projects and Events – Cloud Computing for the Corporation.

UNIT -IV Cloud Computing Technology **19 Hrs**

Collaborating on Calendars, Schedules and Task Management – Exploring
Online Scheduling Applications–Exploring Online Planning and Task Management – Collaborating on Event Management – Collaborating on Contact Management – Collaborating on Project Management – Collaborating on Word Processing – Collaborating on Databases – Storing

and Sharing Files – Evaluating Web Mail Services – Evaluating Web Conference Tools – Collaborating via Social Networks and Groupware – Collaborating via Blogs and Wikis.

UNIT -V Cloud Application Development **19 Hrs**

OGSA – Sample Use Cases – OGSA Platform Components – OGSI – OGSA Basic Services. Globus Toolkit – Architecture – Programming Model – High Level Services – OGSI.Net. Middleware Solutions- Issues in cloud computing-Implementing real time application over cloud platform Issues in Intercloud environments- QOS Issues in Cloud- Dependability- datamigration, streaming in Cloud.

Distribution of Marks: Theory 80% and Applications:20%

TEXT BOOKS

S.No	Authors	Title	Publishers	Year of Publication
1	Judith Hurwitz, Bloor.R, Kanfman.M, Halper.F	Cloud Computing	Wiley India Edition	2010
2	GautamShroff	Enterprise Cloud Computing	Cambridge University press	2010

REFERENCE BOOKS

S.No	Authors	Title	Publishers	Year of Publication
1	Arshdeep Bahga, Vijay Madisetti.	Cloud Computing	Universities Press	August 2014.
2	Haley Bear	Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLAs	Que Publishing	2009

3	Thomas Erl	Cloud Computing: Concepts, Technology & Architecture	Pearson Service Technology Series	May 2013
4	John Rhoton	Cloud computing explained	Recursive press	2009
5	Daniele casal	Cloud Computing for programmers	San Bernandino	Jan 2014
6	Nayan B.Ruparelia	Cloud Computing	MIT Press	April 2016
7	Micheal J.Kavis	Architecting the Cloud	Wiley	Jan 2014
8	A.Srinivasan	Cloud Computing	Pearson	Jan 2014

WEB RESOURCES

1. https://www.javatpoint.com/cloud-computing-tutorial
2. https://www.tutorialspoint.com/cloud_computing/index.htm

TEACHING METHODOLOGY

1. Power point presentation
2. seminar by students
3. Assignment to students
4. Lecture through video.
5. Discussion and interaction in class room

SYLLABUS DESIGNER

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