S. No.	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Sessional	Final Exam	Total
4.	BCMMI-306(D)	Cloud Computing	Minor	4	4	0	0	40	60	100

Course Outcomes:

	At the end of the course the student will be able to: -
CO1	Describe the main concepts of cloud computing.
CO2	Interpret architecture and infrastructure of cloud computing.
CO3	Compile the value of cloud computing from a business perspective.
CO4	Analyze the core issues of cloud computing such as security, privacy, and risk.
CO5	Evaluate the models of cloud computing and apply it in different settings.

Detailed Syllabus
Section A

Unit I:Introduction to Cloud Computing: Introduction to Cloud Computing, History and Evolution of Cloud Computing, Grid Computing vs Cloud Computing, – Cloud components - Essential characteristics – On-demand self-service, Comparing cloud providers, pros and cons of cloud computing, Cloud applications, Cloud challenges.

(10 Hrs)

Unit II: Cloud Computing Architecture: Layers in cloud architecture, Cloud Delivery models, The SPI Framework, Cloud Software as a Service (SaaS), Cloud Platform as a Service (PaaS), Cloud Infrastructure as a Service(IaaS), Cloud deployment models-Public clouds – Private clouds – Community clouds - Hybrid clouds.

(10 Hrs)

Unit III: Cloud Business Value: Reducing Costs and Increasing Efficiency through Scalability, Reducing IT Administrative Overhead, Increasing Organizational Agility, Examining the Business Impact, Evaluating Cloud Computing Costs and Choosing the Appropriate Cloud Model.

(10 Hrs)

Section B

Unit IV: Security in the Cloud: Cloud Computing Risk Issues: The CIA Triad, Privacy and Compliance Risks, Threats to Infrastructure, Data and Cloud Access Control Issues, Cloud Service Provider Risks. Cloud Computing Security challenges.

(09 Hrs)

Unit V:Emerging trends in cloud computing: Multi and Hybrid Cloud Deployment, Edge Computing, Cloud-Native Applications, The AI and ML-Powered Cloud, Internet of Things.

(09 Hrs)

Textbooks:

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1.	Cloud Essentials	Kirk Hausman Susan L. Cook Telmo Sampaio	Wiley Publishing	1st (2013)
2.	Cloud Computing	Judith Hurwitz, Robin Bloor, Marcia Kaufman, and Dr. Fern Halper	Wiley Publishing	2nd (2020)

Reference Books:

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1.	Handbook of Cloud Computing	Borko Furht. Armando Escalante	Springer	1st (2010)