

S. No	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Sessional	Final Exam	Total
1	BFSMI-306(A)	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	Examine 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	Analyse the core issues of cloud computing such as security, privacy, and risk
CO5	Evaluate the emerging trends of cloud computing.

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	1 st (2013)
2	Cloud Computing	Judith Hurwitz, Robin Bloor, Marcia Kaufman, and Dr. Fern Halper	Wiley Publishing	2 nd (2020)

Reference Books

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