Sr. No.	Course Outcomes
1	Configure, test and deploy secure and cost-effective cloud infrastructure
2	Provide secure and easy access to the cloud services
3	Automate cloud infrastructure deployment and management
4	Use cloud monitoring and deployment tools
5	Deploy and utilize machine learning model on cloud computing environment
6	Compliance of cloud infrastructure with the various standards

PSO 1	To develop the culture of augmenting existing technologies to create scalable IT solutions.
PSO 2	To combine various technologies like IoT, Cloud and Analytics to provide integrated solutions to real time problems of government /industries.
PSO 3	To master in molding any problem into a web/internet-based solutions.

PO 1	Engineering knowledge
PO 2	Problem analysis
PO 3	Design / development of solutions
PO 4	Conduct investigations of complex problems
PO 5	Modern tool usage
PO 6	The engineer and society
PO 7	Environment and sustainability
PO 8	Ethics
PO 9	Individual and team work
PO 10	Communication
PO 11	Life-long learning
PO 12	Project management & finance

Professional Skills - V

(Accredited By ... Choice Based Credit Grading ... Under TCET Autonomy)

Experiments List

A.Y. 2024-2025 T.E. SEM : V

Course Name: Professional Skills IV (Cloud Architecture I)

Sr. No.	Practical/Experiment topic	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy	CO Mapping	PO Mapping	PSO Mapping
1.	Design and deploy the cloud-based application with scalability feature.	2	L1,L2.L3,L4	CO2,	1-5, 9-11	1,2
2.	Create Virtual Private Cloud for the cloud-based application.	2	L1,L2.L3,L4	CO3	1-5, 9-11	1,2
3.	Create security groups for the cloud instances.	2	L1,L2.L3,L4,L5,L6	CO3,CO6	1-5, 9-11	1,2
4.	Deploy load balancer for the application deployed on to distribute the load among multiple instances.	2	L1,L2.L3,L4,L5,L6	CO2, CO3	1-5, 9-11	1,2
5.	Create and modify the firewall rules of Virtual Private Cloud.	2	L1,L2.L3,L4,L5,L6	CO3,CO6	1-5, 9-11	1,2
6.	Design the secure network architecture for the cloud-based application.	2	L1,L2.L3	CO2,CO6	1-5, 9-11	1,2
7.	Create the serverless computing models (e.g., AWS Lambda, Azure Functions).	2	L1,L2.L3,L4,L5,L6	CO4	1-5, 9-11	1,2
8.	Create API and access the cloud services using the API.	2	L1,L2.L3,L4,L5,L6	CO2,	1-5, 9-11	1,2
9.	Automate the Deployment of Networks in cloud computing environment with Terraform.	2	L1,L2.L3,L4,L5,L6	CO4	1-5, 9-11	1,2
10.	Explore and configure parameters and tools to monitor and manage cloud services.	2	L1,L2.L3	CO4	1-5, 9-11	1,2
11.	Implement the application which uses the cloud services to create machine learning model.	2	L1,L2.L3,L4,L5,L6	CO5,	1-5, 9-11	1,2
12.	Implement the application which uses the Natural Language API service of cloud computing.	2	L1,L2.L3,L4,L5,L6	CO6	1-5, 9-11	1,2
13.	Implement the application which uses the audio to text API service of cloud computing.	2	L1,L2.L3,L4,L5,L6	CO5	1-5, 9-11	1,2
14.	Case study on various standards developed for the efficient use and high security of cloud computing.	2	L1,L2.L3	CO6	1-5, 9-11	1,2
15.	Mini Project	2	L1,L2.L3,L4,L5,L6	CO1-6	1-5, 9-11	1,2
	Total Hrs.	30				