SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. II Year II Semester Regular Examinations July/August-2025
INTRODUCTION TO CLOUD COMPUTING
(CSE with Specialization in Cloud Computing)

Time: 3 Hours **Max. Marks: 70**

PART-A
(Answer all the Questions 10 x 2 = 20 Marks)

1	a	Illustrate the concept of service-oriented architecture (SOA) in designing a cloud-based application.	CO1	L2	2M
	b	What is scalable computing in the context of distributed systems?	CO1	L1	2M
	c	What are the three main cloud service models in XaaS?	CO2	L1	2M
	d	Suggest a suitable deployment model for a government organization and justify your answer.	CO2	L1	2M
	e	Explain the purpose of virtual clusters in cloud environments.	CO3	L1	2M
	f	List the key phases involved in migrating an application to the cloud.	CO3	L1	2M
	g	Explain the difference between GFS and HDFS in cloud file systems.	CO4	L2	2M
	h	What role does BigTable play in large-scale data storage?	CO4	L1	2M
	i	What measures are included in infrastructure security?	CO5	L1	2M
	j	Define authentication and authorization in cloud security.	CO5	L1	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	What is Cloud Computing? Evaluate the advantages of Cloud Computing.	CO1	L3	5M
	b	Analyze the cloud architecture with neat sketch and explain how each layer contributes to overall service delivery.	CO1	L4	5M

OR

3	a	Create and explain a suitable SOA architecture for a distributed system.	CO1	L3	5M
	b	Explain in detail about Cloud Computing Stack.	CO1	L3	5M

UNIT-II

4	a	Explain how SLA affects the quality of cloud services and its role in cloud computing.	CO2	L3	5M
	b	Identify the Approaches in SLA Management.	CO2	L4	5M

OR

5	a	Define service model. Determine the service models in cloud computing	CO2	L3	5M
	b	Explain in detail about SaaS.	CO2	L3	5M

UNIT-III

6	a	Evaluate the different types of virtualization and assess their strengths and weaknesses in various use cases.	CO3	L5	5M
	b	List and explain the benefits of Virtualization.	CO3	L3	5M

OR

7	a	What do you understand by Migrating Applications to Cloud.	CO3	L3	6M
	b	Interpret Live VM Migration Steps and Performance Effects.	CO3	L4	4M

UNIT-IV

8	a	Demonstrate the working mechanism of Hadoop Distributed File System.	CO4	L3	6M
	b	Analyze how metadata is managed differently in GFS and HDFS.	CO4	L4	4M

OR

9	a	Explain how cloud-native databases overcome these limitations.	CO4	L3	5M
	b	List the limitations of relational databases in cloud environments.	CO4	L3	5M

UNIT-V

10	a	Discuss in detail about Network Level Security, Host Level Security and Application Level Security.	CO5	L3	5M
	b	Assess the common types of attacks happen in Network, Host and Application Levels.	CO5	L4	5M

OR

11	a	Design a model for the life cycle of identity management and explain how each phase.	CO5	L4	5M
	b	List and Explain the activities supported by IAM.	CO5	L3	5M

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