


Name: Enrolment No:			
<p style="text-align: center;">UPES End Semester Examination, May 2025</p> <p> Course: Cloud Computing Security & Management Program: B.Tech Course Code: CSVT4014P </p> <p style="text-align: right;"> Semester: VIII Time: 03 hrs. Max. Marks: 100 </p> <p>Instructions:</p> <ul style="list-style-type: none"> • Mention the question being answered clearly. • Draw clear diagrams wherever necessary. 			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Define multi-tenancy and explain its security challenges in cloud environments.	4	CO1
Q 2	Differentiate between symmetric and asymmetric encryption with examples.	4	CO2
Q 3	Explain the significance of centralized identity management in cloud systems.	4	CO3
Q 4	What are the key components of service management in the cloud?	4	CO1
Q 5	Describe the tasks involved in system maintenance for cloud administrators.	4	CO3
SECTION B (4Qx10M= 40 Marks)			
Q 6	Evaluate the various security risks associated with virtualization and suggest preventive measures.	10	CO1
Q 7	Explain with a diagram how AAA (Authentication, Authorization, Accounting) framework functions in a cloud environment.	10	CO2
Q 8	Discuss the evolution of IAM in the context of cloud and mobile computing. OR Analyze the IAM life cycle and how it impacts cloud security.	10	CO2

Q 9	Assess the role of cryptographic technologies in ensuring cloud data confidentiality and integrity.	10	CO2
<p style="text-align: center;">SECTION-C (2Qx20M=40 Marks)</p>			
Q 10	<p>Cloud service providers must ensure resilience and security despite inherent cloud risks.</p> <p>A. Analyze the top 5 cloud-specific vulnerabilities and their mitigation strategies.</p> <p>B. Design a layered security architecture for a public cloud system.</p>	<p>10</p> <p>10</p>	CO1
Q 11	<p>A. Create a detailed implementation plan for configuring a secure identity management framework using federated identity models.</p> <p>OR</p> <p>B. Evaluate different encryption protocols used in cloud systems and propose a hybrid model suited for high-availability services.</p>	20	CO3