

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

April – May 2024		
(B.Tech.) Program: Information Technology Scheme I/II: II		
Examination: TY Semester: VI		
Course Code: ITDLC6054 and Course Name: Cloud Computing and Services		
Date of Exam: 25/05/2025	Duration: 2.5 Hours	Max. Marks: 60

Instructions:				
(1) All questions are compulsory.				
(2) Draw neat diagrams wherever applicable.				
(3) Assume suitable data, if necessary.				
		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	What are the 4 components required to create a cloud?	2	CO1	U
ii)	What is the mechanism of hypervisor?	2	CO2	U
iii)	Which processor is better for virtualization?	2	CO1	U
iv)	Is Spotify a SaaS or PaaS?	2	CO3	U
v)	What kind of storage is DynamoDB?	2	CO3	U
vi)	What is type of VPC?	2	CO4	U
vii)	Is AWS an open source cloud?	2	CO5	U
viii)	What are the 5 security in cloud computing?	2	CO6	U
Q.2	Solve any four questions out of six.	16		
i)	Explain Advantages and Disadvantages of Cloud Computing	4	CO1	U
ii)	Describe Pros and Cons of Virtualization.	4	CO2	U
iii)	Explain Relational Database Service (RDS) with diagram.	4	CO3	U
iv)	Explain EC2 Amazon Machine Images.	4	CO4	U
v)	Explain Components and Modes of Operations in Openstack.	4	CO5	U
vi)	Explain IAM Architecture.	4	CO6	U

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Q.3	Solve any two questions out of three.	16		
i)	Explain S3 architecture in AWS.	8	CO4	U
ii)	Explain Deployment Models and Service Models with necessary diagram.	8	CO1	U
iii)	Draw and explain Xen Architecture.	8	CO2	A
Q.4	Solve any two questions out of three.	16		
i)	Differentiate Between Serverless and Cloud Computing.	8	CO5	An
ii)	Imagine you are leading a team tasked with designing a revolutionary cloud security solution that addresses the evolving threats and challenges faced by organizations in today's digital landscape. Develop a comprehensive strategy that integrates cutting-edge technologies, industry best practices, and innovative approaches to safeguarding data, applications, and infrastructure in cloud environments. Consider factors such as scalability, automation, threat intelligence, user experience, and regulatory compliance to create a next-generation cloud security platform that empowers organizations to confidently embrace the benefits of cloud computing while mitigating security risks. Propose novel ideas, methodologies, and features that differentiate your solution from existing offerings and provide a competitive advantage in the market	8	CO6	An
iii)	Explain with real time example Partition and Hash Keys in DynamoDB.	8	CO3	U
