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

Subject Code: EXDLC7044

Subject Name: Cloud Computing & Security

Date: 10/12/22

Nov – Dec 2022 (B.Tech) Program: Electronics and Telecommunication Examination: LY Semester: VII Course Code: EXDLC7044 and Course Name: Cloud Computing & Security Duration: 2.5 Hours <span style="float: right;">Max. Marks: 60</span>				
Instructions: (1) All questions are compulsory. (2) Draw neat diagrams wherever applicable. (3) Assume suitable data, if necessary.				
		Max. Marks	CO	BT level
<b>Q 1</b>	<b>Solve any six questions out of eight:</b>	<b>12</b>		
i)	State and define any two cloud computing characteristics	2	1	1
ii)	Compare and contrast two types of hypervisors	2	2	3
iii)	List down the cloud service models and define any one of them.	2	3	1
iv)	Draw the architecture of OpenStack	2	4	1
v)	What is the role of Amazon EC2 instances?	2	5	2
vi)	What are the security challenges in a cloud computing environment?	2	6	2
vii)	Name the two services provided by Database as a Service in cloud with example	2	3	1
viii)	What are the benefits of Mobile cloud computing?	2	4	2
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Explain Amazon Virtual Private Cloud (AWS VPC)	4	5	2
ii)	What are IAM services in the cloud? Also explain how does IAM services work.	4	6	2
iii)	What are different cloud deployment models? State and explain all models.	4	1	2
iv)	Write short note on - Cloud Storage Gateways (CSG)	4	3	2
v)	Explain the virtualization structure in brief.	4	2	2
vi)	Elaborate on Google App engine and it's benefits	4	4	3
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Explain in brief – NIST cloud computing reference architecture	8	1	2

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ii)	Explain BigTable architecture with suitable diagram	8	4	2
iii)	Define Simple Storage Service by Amazon. State the process to define bucket using S3 services. Also differentiate between S3 and Amazon Glacier.	8	5	2
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	What is Xen? Discuss its elements for virtualization along with its architecture.	8	2	2
ii)	Explain Platform as a Service (PaaS) architecture in brief.	8	3	2
iii)	Explain in brief – AAA model for security	8	6	2

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