U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations

Programme: B.E. **Semester: VI**
Branch: Information Science and Engineering **Duration: 3 hrs.**
Course Code: 23IS6PCCLC **Max Marks: 100**
Course: Cloud Computing

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

				CO	PO	Marks
			UNIT - I			
1	a)	With a neat diagram, identify the convergence of technology fields that significantly advances and contributes to the advent of cloud computing.		CO1	PO1	7
	b)	Describe cloud computing stack with a neat diagram.		CO1	PO1	7
	c)	Categorize the challenges and risks associated with cloud computing.		CO1	PO1	6
			OR			
2	a)	Classify clouds based on deployment models.		CO2	PO1	7
	b)	Identify the features of IaaS service providers.		CO2	PO1	6
	c)	Analyze the iterative seven-step model of migration into the cloud with a neat diagram.		CO2	PO1	7
			UNIT - II			
3	a)	Demonstrate virtual machine life cycle with suitable illustration.		CO3	PO2	7
	b)	Elucidate the steps in provisioning Virtual Machines.		CO3	PO2	6
	c)	Provide the steps for Live migration's mechanism from one host to another host.		CO3	PO2	7
			OR			
4	a)	Identify the importance of design considerations for cloud applications.		CO3	PO2	7
	b)	Choose the right deployment architecture for e-Commerce, Business-to-Business, Banking and Financial applications.		CO3	PO2	6
	c)	Compare Service Oriented Architecture (SOA) and Cloud Controls Matrix(CCM).		CO3	PO2	7

			UNIT - III			
	5	a)	Identify the advantages of Microservices for ▪ Software development ▪ Operations and maintenance	***CO3***	***PO2***	**7**
		b)	Construct two alternative designs for Online Shopping Payment Microservices.	***CO3***	***PO2***	**7**
		c)	Illustrate various interactions that are used with Microservices.	***CO3***	***PO2***	**6**
			OR			
	6	a)	Identify the cloud specific security problems.	***CO1***	***PO1***	**6**
		b)	Discuss zero trust security model.	***CO1***	***PO1***	**7**
		c)	Explain the three principles that helps to define security practices.	***CO2***	***PO1***	**7**
			UNIT - IV			
	7	a)	Outline Multi-cloud, CMP, Cloud Native, Hypervisor, Load balancing, Multi-tenancy and UI.	***CO2***	***PO1***	**7**
		b)	With a diagram explain Capability Maturity Model.	***CO2***	***PO1***	**7**
		c)	Explore the common steps in Planning assessment.	***CO1***	***PO1***	**6**
			OR			
	8	a)	Explain simplified enterprise governance model with a neat diagram.	***CO2***	***PO1***	**6**
		b)	Classify the items involved in Transition plan.	***CO1***	***PO1***	**7**
		c)	Explore the options for the transformation to the cloud in developing and migrating workloads.	***CO1***	***PO1***	**7**
			UNIT - V			
	9	a)	Analyze, how cloud computing be adapted to meet the requirements for low latency with an example.	***CO3***	***PO2***	**7**
		b)	Discover how caching takes place at multiple levels of a hierarchy with an example.	***CO3***	***PO2***	**6**
		c)	Examine the three aspects of the connected vehicle system lend themselves to the edge computing approach.	***CO3***	***PO2***	**7**
			OR			
	10	a)	Illustrate the characteristics found in an automated assembly line IoT application that distinguish them from most consumer IoT applications.	***CO3***	***PO2***	**6**
		b)	List and discuss the Data Distribution Service (DDS) characteristics.	***CO3***	***PO2***	**7**
		c)	Illustrate an application of any level that can subscribe to receive data from an application at an arbitrary level.	***CO3***	***PO2***	**7**

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