PCET LIBRARY BANGALORE-49

CBCS SCHEME

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BAD515C

Fifth Semester B.E./B.Tech. Degree Examination, June / July 2026
Cloud Computing

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the evolution of High – Processing Computing (HPC) and High –Throughout Computing (HTC) Systems? Provide examples of flow this systems have adapted to meet modern computational needs.	10	L2	CO1
	b.	Explain the architectural distinctions among clusters, computational grids, peer – to – peer networks, and cloud systems.	10	L2	CO1
		OR			
Q.2	a.	How has GPU computing driven high-performance computing, and what challenges and innovations are key to achieving exascale and beyond?	10	L3	CO1
	b.	Discuss the common security threats in distributed and cloud computing environment and suggest suitable mitigation techniques.	10	L2	CO1
		Module – 2			
Q.3	a.	Describe the different implementation levels or virtualization in detail.	10	L2	CO2
	b.	Explain binary translation in full virtualization and para - virtualization highlight how they are different.	10	L2	CO2
		OR			
Q.4	a.	Explain the Hardware Assisted virtualization and VT – i technology.	10	L2	CO2
	b.	Explain the Xen architecture and the functions of Domain O and Domain V.	10	L2	CO3
		Module – 3			
Q.5	a.	Compare public, private and hybrid cloud models in terms of ownerships, control, and typical use cases.	10	L2	CO3
	b.	Describe with diagram, the working of cooling system in a raised – floor data center using Hot – Cold air circulation.	10	L2	CO3

		OR			
Q.6	**a.**	Analyze the significance of the Fat – tree inter – connection network in achieving high throughout and fault tolerance in data centers.	**10**	**L2**	**CO3**
	b.	Explain architectural design challenges of compute and storage clouds.	**10**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Explain the XOAR architecture components with neat diagram.	**10**	**L1**	**CO4**
	b.	Discuss the seven top threats identified by the CSA with examples.	**10**	**L2**	**CO4**
		OR			
Q.8	**a.**	Identify the challenges in establishing online trust in cloud computing.	**10**	**L1**	**CO4**
	b.	Explain the vulnerabilities associated with public Amazon Machine Images (AMIs).	**10**	**L2**	**CO5**
		Module – 5			
Q.9	**a.**	Explain the core concepts of the Map Reduce programming, including the roles of the Map and Reduce Functions.	**10**	**L2**	**CO5**
	b.	Explain the design goals and architecture or Big Table, Google's NoSQL Systems.	**10**	**L2**	**CO1**
		OR			
Q.10	**a.**	Describe the architecture of GFS, including its data mutation process.	**10**	**L2**	**CO5**
	b.	Explain the SIX configurations of Amazon EC2.	**10**	**L2**	**CO5**

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