Q. Code:348029

Reg. No. | | | | | | | | | | | | | | |

B.E / B.TECH. DEGREE EXAMINATION, MAY 2024

Seventh Semester

CS18701 – CLOUD COMPUTING AND VIRTUALIZATION TECHNIQUES

(Computer Science and Engineering)

(Regulation 2018 / Regulation 2018A)

TIME:3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO1	The student will be able to describe the fundamentals of cloud computing.	**2**
CO2	The student will be able to explain the cloud infrastructure.	**2**
CO3	The student will be able to describe the concept of virtualization that is fundamental to cloud computing.	**3**
CO4	The student will be able to identify the emerging cloud softwares.	**3**
CO5	The student will be able to identify the security issues in cloud computing.	**3**

PART- A (10x2=20Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	List the technologies used in cloud computing.	**1**	**2**
2.	What are the benefits of cloud services for business?	**1**	**2**
3.	Explain the issues with static resource provisioning policies.	**2**	**2**
4.	Name some public cloud platform providers.	**2**	**2**
5.	What are the characteristics of virtualization in cloud computing?	**3**	**2**
6.	Compare Type-1 and Type-2 hypervisors.	**3**	**2**
7.	How does 'Name node' handles 'Data node' failure in Hadoop Distributed File System?	**4**	**3**
8.	Distinguish between GFS and HDFS.	**4**	**3**
9.	What are the threats involved in cloud security?	**5**	**2**
10.	Discuss the impact of data lock-in on cloud computing migration.	**5**	**2**

PART- B (5x14=70Marks)

		Marks	CO	RBT LEVEL
11.(a)	Discuss about cluster computing with cloud computing. Explain the challenges of cloud computing.	**(14)**	**1**	**2**
	(OR)			
(b)	Discuss the role of reference architecture in cloud computing. Also, illustrate the different types of cloud architectural model.	**(14)**	**1**	**2**

12.(a)	Discuss the architectural design challenges of compute and storage clouds.	**(14)**	**2**	**2**
	(OR)			
(b)	Illustrate the inter-cloud resource management approaches.	**(14)**	**2**	**2**
13.(a)	Discuss the different implementation levels of virtualization with relevant tools and techniques.	**(14)**	**3**	**3**
	(OR)			
(b)	Analyse the impact of virtualization in data center automation.	**(14)**	**3**	**3**
14.(a)	How does Big Table store data? Analyze the essential capabilities Big Table offers for a business to thrive.	**(14)**	**4**	**3**
	(OR)			
(b)	Illustrate a simple word count example of the working of MapReduce.	**(14)**	**4**	**3**
15.(a)	Analyze the security measures needed at various cloud service levels.	**(14)**	**5**	**3**
	(OR)			
(b)	Discuss the classes of network attacks in a P2P network and the schemes to prevent such attacks.	**(14)**	**5**	**3**

PART- C (1x10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Elaborate the building blocks of Google Cloud Platform. Also, list the applications of Google App Engine.	**(10)**	**4**	**5**