Reg. No. ☐☐☐☐☐☐☐☐☐☐☐☐

B. E / B. TECH.DEGREE EXAMINATION, MAY 2023
Seventh Semester
IT18703 – Cloud Computing
Department of Information Technology
(Regulation 2018)

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

Course Outcomes	Statements	RBT Level
CO1	Interpret various cloud service models and deployment models	2
CO2	Identify programming models for virtualization	3
CO3	Explore the different cloud infrastructure mechanism	3
CO4	Analyze big data scenario using HDFS	4
CO5	Use and implement Cloud Software Environment tools	5

PART- A(10x2=20Marks)
(Answer all Questions)

		CO	RBT LEVEL
1.	Compare Centralized computing and distributed computing	1	2
2.	Highlight the importance of the term "cloud computing.	1	2
3.	Demonstrate the need of virtualization in cloud computing.	2	3
4.	Illustrate how virtualization streamlines the disaster recovery.	2	3
5.	Describe about Virtual Infrastructure Manager (VIM).	3	2
6.	Explain the major activities of cloud provider.	3	3
7.	HDFS is fault tolerant. Is it true? Justify your answer.	4	4
8.	Name any two security challenges associated with cloud in today's digital scenario	4	2
9.	Illustrate Amazon EC2 and its basic features?	5	3
10.	Discover the main services that are offered by Eucalyptus software	5	3

PART- B (5x 14=70Marks)

				Marks	CO	RBT LEVEL
11. (a)	(i)	Outline the principles and architecture of cluster cooperative computers with a diagram.		(7)	1	2
	(ii)	Outline the various deployment models of cloud with neat sketch and identify which among them could be applied to formulate cloud structure for a small firm.		(7)	1	2

(OR)

			Marks	CO	RBT LEVEL
(b)	Describe the NIST cloud computing reference architectural model. Explain in detail all the components.		(14)	1	2
12. (a)	Examine the working nature of virtualization structure for i)Hypervisor and Xen Architecture ii)Binary Translation with Full Virtualization		(14)	2	3
	(OR)				
(b)	Explain in detail about the implementation level of virtualization with neat diagram. Also mention the tools used in each implementation level.		(14)	2	3
13. (a)	Illustrate with a neat sketch about various types of cloud storage mechanism. • Network Storage Interface • Object Storage Interface • Database Storage Interface		(14)	3	3
	(OR)				
(b)	Demonstrate the working of various cloud specialized management mechanism associated with cloud. • Resource cluster • Automatic Scaling Listener • Fail over system		(14)	3	3
14. (a)	Elaborate Map and Reduce functions and explain how the input splitting can be performed in Hadoop framework		(14)	4	3
	(OR)				
(b)	Examine the dataflow process in HDFS during file Read and Write operations with suitable diagrams.		(14)	4	3
15. (a)	Briefly Explain each of the cloud computing services. Identify two cloud providers by company name in each service category.		(14)	5	4
	(OR)				
(b)	Sketch the structure of Openstack architecture with various components and explain each of its component.		(14)	5	4

PART- C (1x 10=10Marks)

		Marks	CO	RBT LEVEL
16.	It is said, 'cloud computing can save money'. What is your view? Can you name some open-source cloud computing platform databases? Explain any one database in detail.	(10)	5	5

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