B.Tech IV Year I Semester (R20) Regular Examinations December/January 2024
CLOUD COMPUTING
(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)
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1	Answer the following: (10 X 02 = 20 Marks)	
(a)	List down the characteristics of cloud computing.	2M
(b)	Define para-virtualization.	2M
(c)	List out Hadoop's three configuration files.	2M
(d)	Mention five benefits of using Python.	2M
(e)	Explain the component design for Image Processing App.	2M
(f)	What are the functionalities of MapReduce App?	2M
(g)	Describe the characteristics of Big Data.	2M
(h)	List out the streaming Protocols used in multimedia cloud.	2M
(i)	Outline the benefits of Cloud for healthcare.	2M
(j)	List the different phases of the key management lifecycle.	2M

PART – B
(Answer all the questions: 05 X 10 = 50 Marks)

2	(a)	Describe the Open Source Private Cloud Software – OpenStack.	7M
	(b)	Explain the characteristics of cloud computing.	3M
		OR	
3	(a)	Define virtualization. Explain what is hypervisor and its features with steps to show how it virtualizes CPU and memory.	5M
	(b)	Define Software defined networking. Explain SDN architecture with the help of a diagram.	5M
4		Explain the workflow of MapReduce Job Execution.	10M
		OR	
5		Explain a typical deployment architecture for content delivery applications with a neat diagram.	10M
6		Write a python program for launching an RDS instance.	10M
		OR	
7		Explain design methodology for MapReduce App.	10M
8		Illustrate the working of the k-means algorithm on a distributed file system with a neat diagram.	10M
		OR	
9	(a)	Define Benchmarking and explain why benchmarking of cloud applications is important.	5M
	(b)	Discuss the steps involved in cloud application benchmarking.	5M
10	(a)	Explain the workflow of token based SSO authentication.	3M
	(b)	Distinguish between cloud computing from outsourcing and provision of Application services.	7M
		OR	
11	(a)	Describe the jurisdictional issues raised by virtualization and data location.	5M
	(b)	Explain how encryption can be achieved at various levels in cloud computing.	5M

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