Reg. No.

M.E/ M.TECH. DEGREE EXAMINATIONS, MAY 2024
Second Semester
CP22201 – CLOUD SERVICES AND VIRTUALIZATION
(Computer Science and Engineering)
(Regulation 2022)

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

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Employ the concepts of storage virtualization, network virtualization and its management	3
CO 2	Apply the concept of virtualization in the cloud computing	3
CO 3	Identify the architecture, infrastructure and delivery models of cloud computing	2
CO 4	Develop services using Cloud computing	3
CO 5	Apply the security models in the cloud environment	3

PART- A(20x2=40Marks)
(Answer all Questions)

		CO	RBT LEVEL
1.	Draw the taxonomy of virtual machines.	1	3
2.	What is the use of binary translation?	1	3
3.	Give the difference between simulation with emulation.	1	2
4.	Illustrate the uses of hardware maximization.	1	3
5.	Outline the purpose of 'Shadow page table' in memory virtualization.	2	3
6.	Illustrate the implementation levels of virtualization.	2	3
7.	What do you mean by desktop virtualization?	2	3
8.	Discuss about virtual machine with physical machine.	2	2
9.	What is the necessary of virtualization in Cloud computing?	3	2
10.	What are various challenges faced for designing the cloud architecture?	3	2
11.	List the cloud players.	3	2
12.	List out the extended cloud computing services.	3	2
13.	Write the uses of Heartbeat signal in Hadoop.	4	3
14.	Evaluate the block size in HDFS environment.	4	3
15.	What do you mean by Twister and Iterative MapReduce?	4	3
16.	Examine the emerging cloud softwares.	4	3
17.	Discuss about data lock-in problem.	5	2
18.	Illustrate about the Man-in-the-Middle attack.	5	3

19.	What are the aspects considered for data security?	5	3
20.	"Virtual machine is secured". Is it true? Justify your answer.	5	3

PART- B (5x 10=50Marks)

		Marks	CO	RBT LEVEL
21. (a)	Illustrate in detail about process virtual machine and system virtual machine?	(10)	1	3
	(OR)			
(b)	List out the use of emulation? Illustrate in detail about the interpretation with suitable example.	(10)	1	3
22. (a)	How is the virtualization achieved in CPU, memory and I/O devices in cloud computing? Discuss in detail.	(10)	2	3
	(OR)			
(b)	Discuss about virtual cluster with physical cluster. Explain in detail about the virtual cluster and resource management.	(10)	2	3
23. (a)	Describe and examine the deployment models and its services in cloud computing.	(10)	3	2
	(OR)			
(b)	Explain about virtual machine creation and management in Inter-cloud Resource Management.	(10)	3	2
24. (a)	Examine in detail about the MapReduce and file system in Hadoop framework with a neat diagram.	(10)	4	4
	(OR)			
(b)	Analyze about the Dryad and DryadLINQ from Microsoft platform.	(10)	4	4
25. (a)	Apply the Network level and host level infrastructure security in cloud environment.	(10)	5	3
	(OR)			
(b)	Illustrate in detail about the Distributed Intrusion/Anomaly Detection, Data and Software Protection Techniques in cloud security.	(10)	5	3

PART- C (1x 10=10Marks)
(Q.No.26 is compulsory)

		Marks	CO	RBT LEVEL
26.	Describe in detail about the public cloud platforms such as GAE, AWS with a case study and relearnt implementation strategies on cloud.	(10)	3	5

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