MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
(A constituent unit of MAHE, Manipal)

VII SEMESTER B.TECH. COMPUTER SCIENCE AND ENGINEERING

END SEMESTER EXAMINATION DECEMBER 2023

SUBJECT: CLOUD COMPUTING [CSE 4063]

REVISED CREDIT SYSTEM
xx.xx.xxxx

Time: 3hours   MAX. MARKS:50

Instructions to Candidates:

❖ Answer **ALL** the questions.
❖ Missing data may be suitably assumed.

SI. No.		Marks	CO	BL
Q1A.	Discuss different types of clients in cloud computing? Also, discuss the best among them in terms of price and effect on the cloud environment along with any two notable benefits.	5	1	3
Q1B.	Discuss the any three cases where cloud computing may not be appropriate, for any reason ranging from cost to hardware requirements to simply not needing it.	3	1	3
Q1C.	Discuss any two Microsoft Azure services.	2	1	3
Q2A.	Illustrate how keys are managed in the cloud computing environment? Discuss the importance of Kerberos in cloud computing key management with neat diagram.	4	1	3
Q2B.	Discuss how can we change business processes (for the better) by moving some applications and storage to the cloud? Illustrate any four operational benefits.	4	1	3
Q2C.	Illustrate the working of API with neat diagram.	2	1	3
Q3A.	Discuss how the virtual machine life cycle along with major states of operation helps to manage and automate the virtual machine with neat diagram. Also, discuss steps to provision virtual machine.	4	2	3
Q3B.	Discuss the life cycle of a virtual machine within OpenNebula.	4	2	3
Q3C.	Discuss the admission control mechanisms in the application server of the cloud.	2	2	3
Q4A.	Illustrate the life cycle of a service level agreement.	5	2	3
Q4B.	Illustrate the steps involved in the live migration's mechanism in terms of memory and virtual machine states transfer, through the network, from one host A to another host B.	3	2	3
Q4C.	Discuss any two types of leases supported by Haizea.	2	2	3
Q5A.	Discuss the following factors that directly affect cloud software assurance: authentication, authorization, auditing, and accountability.	4	3	3

Q5B	Discuss the following common threats to cloud computing environment: Eavesdropping, Fraud, Theft, Sabotage.	4	3	3
Q5C.	Compare and contrast internal and external consistency w.r.t database integrity.	2	3	4

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