



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

School of Computer Science and Engineering

Fall Semester 2023-24

Continuous Assessment Test – 1

SLOT: F1+TF1

Programme Name & Branch: M.Tech (Integrated) & MIC, MID

Course Name & code: Cloud Computing Methodologies & CSI3001

Class Number (s): VL2023240104383, VL2023240104161, VL2023240104155,
VL2023240104380

Faculty Name (s): Dr. GAYATHRI S, Dr. THIRUNAVUKKARASAN M, Dr. JUSTIN
GOPINATH A, Dr. PRIYANKA N

Exam Duration: 90 Min.

Maximum Marks: 50

Q. No.	Question	Max Marks
1.	To achieve the potential of cloud computing, there is a need to have a standard cloud reference model for software architects, software engineers, security experts, and businesses, since it provides a fundamental reference point for the development of cloud computing. In these circumstances, suggest and explain the cloud reference architecture with necessary examples.	10
2.	The healthcare industry in the U.S. is regulated under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 for the secure storage and transfer of sensitive patient information. Patient records are often shared between hospitals and laboratories by adhering to a cloud deployment model to HIPAA. It is also suitable for pharmaceutical companies that share information globally. Identify and assess the type of cloud deployment model that can be adopted, considering the ongoing collaborative medical research on the COVID-19 pandemic on a global scale.	10
3.	(i) Describe the elasticity characteristics of the cloud (2 Marks) (ii) Elaborate on the cloud service model utilized by Microsoft 365 (8 Marks)	10
4.	A company has a successful service that can be incorporated into many other applications. The organization's head wishes to make it easy for developers, and companies to incorporate their service in applications,	10

	websites, mobile applications, or other services. Also, they wish to create an environment that fosters community and creativity in their community. To meet this scenario which service model is most suitable? Justify your answer in detail.	
5.	The virtualization can be implemented at different levels. Outline the various abstraction levels of virtualization with an example for each category.	10