

 VIT-AP UNIVERSITY	Continuous Assessment Test - 1 Fall Semester (2025-26) - August 2025	
	Maximum Marks: 50	Duration: 90 Minutes
Course Code: SWE 4004	Course Title: Cloud Computing and its Applications	
Set No: 02	Exam Type : Closed Book	School: SCOPE
Date: 22/08/2025	Slot: E1	Session: FN
Keeping mobile phone/smart watch, even in 'off' position is treated as exam malpractice		
General Instructions if any <ol style="list-style-type: none"> 1. "fx series" - non-Programmable calculator is permitted: NO 2. Reference tables permitted: NO 		

Answer ALL Questions, Each Question Carries 10 Marks (5×10=50 Marks)

1. Suppose your organization is planning to migrate its legacy IT infrastructure to the cloud. As the cloud consultant, you have been asked to prepare a comprehensive report for the executive board. In this report, you are expected to explain the overall goals and expected benefits of moving to the cloud, such as improvements in scalability, cost-efficiency, and agility. Additionally, the board wants you to highlight the potential risks and challenges that could arise both during and after the migration process, including technical, financial, and security-related concerns. Present your findings based on real-world practices and industry trends. **(10 M)**
2. Consider a situation where a new tech startup is evaluating whether to invest in building its own IT infrastructure or adopt a cloud computing solution. The founders are unfamiliar with cloud technologies and have asked for your advice. You should compare the different cloud service delivery models—Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS)—and recommend the most appropriate model for the startup, which is planning to launch a scalable web-based application. **(10 M)**
3. You have been assigned to assist an enterprise that handles sensitive customer data, such as a bank or a healthcare provider, which is exploring cloud computing options to modernize its IT systems. As part of your role, you are required to assess and recommend the most suitable cloud deployment model. In your assessment, discuss which model—public, private, hybrid, or community cloud—would best meet their requirements in terms of data security, regulatory compliance, and control. **(10 M)**
4. Imagine a mid-sized e-commerce company is experiencing frequent performance issues and rising infrastructure maintenance costs, especially during peak shopping seasons. The company is considering moving to a virtualized cloud environment. As a cloud architect, you are expected to propose a solution that explains how virtualization technology can improve scalability, flexibility, and resource optimization. **(10 M)**

5. A logistics company is aiming to modernize its IT services by transitioning from a monolithic desktop application to a cloud-based web platform. The company plans to adopt modern web technologies to enhance customer engagement and enable real-time service tracking. As a cloud consultant, describe how web technologies such as APIs, web servers, and microservices can support this transformation. Also explain how these technologies, when integrated with cloud-enabling tools like virtualization and scalable storage, can contribute to building a more flexible, maintainable, and efficient system architecture. (10 M)

QP MAPPING

Q. No.	E/A/T	Module Number	Marks	BL	CO Mapped	PO Mapped	PEO Mapped	PSO Mapped
Q1	A	1	10	4	1,3,5	1-10	-	-
Q2	A	1	10	2	1,2,4	1-10	-	-
Q3	T	1	10	5	2,3,5	1-10	-	-
Q4	A	2	10	3	1,2,4	1-10	-	-
Q5	A	2	10	4	1,2,3,4	1-10	-	-