Department of Artificial Intelligence and Machine Learning

Date: 24.06.2025	Improvement Test	Max. Marks: 50+10
Semester: VI	UG	Duration: 1 12 Hrs + ½ Hr
Course Title: CLOUD COMPUTING TECHNOLOGY & ARCHITECTURES		Course Code:AI362IA

Note: Answer all the Questions

Q. No	Questions	M	BT	CO
1 a	You are designing a global photo-sharing app. How would selecting the right S3 bucket region improve performance for your users?	2	3	4
1 b	A startup needs to host a small web application that has low daily traffic but experiences short bursts of high user activity during marketing campaigns. Which type of EC2 instance would be most cost-effective for this use case, and why?	2	3	4
1 c	Define the term "Scaffold" in the context of multi-cloud environments.	2	1	1
1 d	Mention any two differences between a system of record and a system of engagement.	2	2	1
1 e	What is the role of the "Architecture Vision" phase in TOGAF's ADM cycle?	2	2	1

Note: Answer all the Questions

Q. No	Questions	M	BT	CO
2.a	Mention and explain four key compute services available in Amazon Web Services.	4	2	1
b	List and explain the six major types of EC2 instances?	6	1	2
3.a	Compare S3 storage services with other storage services like REST.	4	4	4
b	Describe the infrastructure of Google App Engine.	6	2	1
4.a	Illustrate the Microsoft Windows Azure Platform Architecture.	5	3	1
b	What are the key business drivers for setting a multi-cloud strategy? Explain the role of the TOGAF ADM in designing this strategy.	5	3	3
5 a	Your organisation plans to launch a new e-commerce platform across different global regions. Explain how a multi-cloud strategy can help achieve high availability, better performance, and regional compliance for this platform.	5	3	4
b	Explain any four pillars of a Well-Architected Framework in the context of multi-cloud deployments?	5	4	4
6 .a	Explain how architecture principles are defined from use cases in a multi-cloud environment? Describe at least five categories of principles, with suitable examples for each.	10	4	4