K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:I
Class:FYMCA	Program:MCA
Branch Code:M.C.A.	Pattern:2024
Name of Course:Cloud Computing	Course Code:2409505A
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains ___TWO__page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

		Marks	CO
Question No. 1			
1a)	Summarize the key characteristics and benefits of cloud computing highlighting how they support scalable and flexible computing services.	(6)	CO1
Question No. 2			
2a)	Compare the service models IaaS, PaaS, and SaaS with suitable examples from platforms like Amazon EC2.	(6)	CO2
Question No. 3			
3a)	Demonstrate the use of Amazon Simple Database Service (SimpleDB) for managing structured data in an e-commerce application scenario.	(8)	CO3
	OR		
3b)	Show how SQL Azure can be used to support database-as-a-service for a customer relationship management (CRM) system.	(8)	CO3
3c)	Implement the Windows Azure Platform Appliance concept in a hypothetical scenario where a company needs a private cloud setup.	(8)	CO3
	OR		
3d)	Demonstrate the Google App Engine application lifecycle by creating a workflow for developing, deploying, and updating a cloud-based application.	(8)	CO3
Question No. 4			
4a)	Use Serverless Computing to implement a lightweight event-driven function for a real-time application scenario.	(8)	CO3, CO4
	OR		
4b)	Implement a build and release process for a cloud-based mobile or web application using DevOps tools.	(8)	CO4
4c)	Analyze the case of Spotify using Docker and apply similar containerization strategies to enhance performance and deployment efficiency in another media-streaming platform.	(8)	CO4

OR

4d)	Apply cloud-based ECG analysis techniques to design a solution that supports remote patient monitoring in the healthcare domain.	(8)	CO4

Question No. 5

5a)	Apply security controls to prevent malicious intermediary and insufficient authorization attacks while accessing SaaS applications.	(8)	CO5

OR

5b)	Illustrate the impact of virtualization attacks and describe how isolation mechanisms can be applied to protect virtualized infrastructures.	(8)	CO5
5c)	Apply the economic principles of cloud computing to create a cost-optimized deployment plan for a startup business.	(8)	CO5

OR

5d)	Implement edge or fog computing concepts to improve latency and efficiency for a smart city IoT application.	(8)	CO5

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