

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025

Third Semester

Computer Science and Engineering

PCSE2421 – Devops and Microservices

Regulations – 2024

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	Define Software Engineering.	L1	1	2
2.	How to deploy web service application software using DevOps?	L2	1	2
3.	Define Cloud computing.	L1	2	2
4.	State the service operations in DevOps.	L2	2	2
5.	List the advantage and disadvantage of coordination model.	L1	3	2
6.	What do you mean by Identity management?	L1	3	2
7.	Write a note on role of automation in DevOps.	L2	4	2
8.	Mention any four DevOps automation tools for monitoring.	L2	4	2
9.	State MLOps.	L1	5	2
10.	Give any four examples on MLOps.	L2	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a i Compare and contest the traditional and agile process model.	L2	1	8
	ii Using a neat diagram explain the Agile Development Cycle.	L2	1	8
	Or			
	b Illustrate DevOps lifecycle process with suitable neat diagram.	L2	1	16
12.	a i Examine the cloud service models such as IaaS, PaaS, SaaS in detail.	L4	2	8
	ii Summarize the support of multiple data centers in service deployment.	L4	2	8
	Or			
	b i Differentiate between hardware provisioning and software provisioning with examples.	L4	2	8
	ii Discuss in detail about security management in DevOps platforms.	L4	2	8
13.	a i Sketch the microservice architecture with neat diagram.	L4	3	8
	ii Examine the process of deployment pipeline in DevOps.	L4	3	8
	Or			

	b	i	Explain the significance of testing in software development on DevOps.	L2	3	8
		ii	Outline the Build and Integration Testing in DevOps.	L2	3	8
14.	a	i	Explain in detail about Infrastructure Automation in DevOps.	L2	4	8
		ii	Illustrate the need of configuration management. Justify your answer.	L2	4	8
			Or			
	b	i	Illustrate the performance management. List its automation tools.	L2	4	8
		ii	Explain the log management in development process in DevOps.	L2	4	8
15.	a		Explain the challenges in MLOps. Write the alternate to overcome the challenges in MLOps.	L2	5	16
			Or			
	b		Illustrate the process of deploying to production with suitable examples.	L2	5	16