R22 Regulation *Subject code:4E6EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Regular/Supplementary Examinations, April 2026

DEVOPS

(CSE)

Maximum Marks: 60 Date:13.04.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a)	What are the bottlenecks in DevOps?	1M	1	1
b)	What is scrum?	1M	1	1
c)	What is micro services architecture?	1M	2	1
d)	What are different software development lifecycle models?	1M	2	1
e)	List the distributed version control systems in DevOps.	1M	3	1
f)	What is a repository in Git?	1M	3	2
g)	Explain about Jenkins plugins.	1M	4	2
h)	Define continuous Integration?	1M	4	1
i)	Compare TDD vs Traditional Testing	1M	5	2
j)	What are pros and cons with test automation?	1M	5	1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a)"Agile methodologies apply four values in different ways to guide the development and delivery of high-quality working software"-Support this statement with an explanation of these four values. b) List the key Differences between Kanban and Scrum in DevOps Context.	7M 3M	1	2
	OR			
3	a) What is continuous delivery and how it works? b) What are the components of Devops environment? Explain.	5M 5M	1	1 1
4	a) Explain how DevOps affects the architecture of our applications rather than the architecture of software deployment systems. b) List the two non-functional requirements that DevOps and Continuous Delivery place on software architecture.	7M 3M	2	2. 1
	OR			
5	Explain DevOps architecture in detail.	10M	2	2
6	a) What are the most widely used hosted Git services? b) Explain how do you revert a commit that has already been pushed and made public.	5M 5M	3	2

	OR			
7	a) Explain how do you implement Shift-Left Security in GitLab and How do you handle secrets in GitLab? b) Explain Docker architecture with neat sketch.	5M 5M	3	1 2
8	What are triggers? Explain about job chaining and build pipelines	10M	4	2
	OR			
9	a) Discuss in detail about the Jenkins file system layout. b) Explain Jenkins master-slave architecture?	5M 5M	4	2 2
10	Explain the following: a) Deploying with SaltStack b) Backend Testing Points	5M 5M	5	2 2
	OR			
11	What is Selenium and explain its features?	10M	5	2