


Name:			
Enrolment No:			
UPES End Semester Examination, May 2024			
Course: DevOps Program: B.Tech CCVT Course Code: CSDV3006		Semester: VI Time: 03 hrs. Max. Marks: 100	
Instructions: Section A (Attempt All Questions), Section B (Attempt Four Questions), Section C (Attempt Two Questions)			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Outline the essential steps for an industry to adopt DevOps for optimal outcomes.	4	CO1
Q 2	Explain CALMR approach.	4	CO2
Q 3	Discuss the significance of a code repository in DevOps.	4	CO2
Q 4	Compare manual and automated testing within the DevOps framework.	4	CO3
Q 5	Discuss the current work scenarios and the necessity of DevOps adoption for resilience and efficiency.	4	CO1
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain the differences between a traditional siloed approach and cross-functional teams in software development. What are the benefits of breaking down silos in DevOps practices?	10	CO1
Q 7	What are the key elements of a software release plan in DevOps? How does DevOps support continuous integration and continuous delivery (CI/CD)?	10	CO2
Q 8	Compare and contrast monolithic and microservices development approaches. How does DevOps architecture contribute to resilience in software systems?	10	CO4
Q 9	Discuss the differences between manual deployment and automated deployment. What are the challenges associated with manual deployment, and how does automation address them?	10	CO3
Q 10	Provide examples of how monitoring tools can detect performance bottlenecks and potential issues in a production environment. How can proactive monitoring contribute to improved system reliability?	10	CO3
SECTION-C (2Qx20M=40 Marks)			

Q 11	Define DevOps and discuss its origins. Why has DevOps become popular in the software development industry? Compare and contrast traditional, Agile, and DevOps methodologies.	20	CO3
Q 12	Install and configure an Open Source Version Control System, and outline the team roles and responsibilities associated with it.	20	CO4
Q 13	Discuss the principles of DevOps and how they can be customized to suit different environments. Describe the various stages in the DevOps lifecycle..	20	CO4