

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, Dec 2020

Course: Continuous Integration and Continuous Deployment Program: B.Tech. CS + DevOps Course Code: CSDV3001	Semester: V Time : 03 hrs. Max. Marks: 100
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Instructions:

SECTION A

1. Each Question will carry 5 Marks
2. Instruction: Complete the statement / Select the correct answer(s)

S. No.		CO
Q1	The four benefits of Continuous Integration are i..... ii. iii. iv	CO1
Q2	The four techniques used to calculate Static Code analysis are i. ii. iii. iv	CO4
Q3	Three levels of testing are i. ii. iii.	CO2
Q4	Principles of continuous delivery are (any five) i. ii. iii. ivv.....	CO3
Q5	Continuous Testing tools are (any five) i. ii. iii. ivv.....	CO2
Q6	Pre-Requisite for a Continuous Delivery (CD) are i. ii. iii. ivv.....	CO1

SECTION B

1. Each question will carry 10 marks
2. Instruction: Write short / brief notes

Q7	Explain the significance of Lean Development methodology in DevOps implementation. Categories the following statement as a Myth or Fact for DevOps. Write some technical points to support your statement. <p style="text-align: center;">“DevOps is only for Unicorns”</p>	CO1
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Q8	<p>What is Continuous Delivery? Explain the following Processes in detail.</p> <ul style="list-style-type: none"> a) Zero Downtime Release b) Blue Green Deployment c) Canary release 		CO3
Q9	<p>Explain the significance of Jenkins Tool in CI/CD process. How is it useful for Integrating following tool for various activities in Software Development and Deployment.</p> <ul style="list-style-type: none"> a) GitHub b) Nexus c) Sonarqube 		CO2
Q10	<p>Explain the following metrics in brief</p> <ul style="list-style-type: none"> a) Cycle Time b) Change Lead Time c) Change Failure Rate 		CO1
Q11	<p>Enlist Top 10 tools used for DevOps. Explain the flow and integration of these tool for following processes.</p> <ul style="list-style-type: none"> a) Continuous Integration b) Continuous Monitoring c) Continuous feedback 		CO3
SECTION-C			
<p>1. Each Question carries 20 Marks. 2. Instruction: Write long answer.</p>			
Q 12	<p>Explain the following sample reports for Sonarqube used in Static Code Analysis.</p> <ul style="list-style-type: none"> a) OWASP Top 10 Sample Report b) SANS Top 25 Sample report <p style="text-align: center;">OR</p> <p>What is the significance of Static Code Analysis? Explain Data Flow Analysis in detail. Explain the following code coverage methods in detail.</p> <ul style="list-style-type: none"> a) Condition Coverage b) Line Coverage 		CO4