

**Name:**  
**Enrolment No:**



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, May 2019**

<b>Programme Name:</b> B.Tech CS+DevOps	<b>Semester :</b> IV
<b>Course Name :</b> Build and Release Management	<b>Time :</b> 03 hrs
<b>Course Code :</b> CSDV 2002	<b>Max. Marks :</b> 100
<b>Nos. of page(s) :</b> 02	

**Instructions:**

**SECTION A (20 Marks)**

S. No.		Marks	CO
Q1.	What is the difference between Build and Release? Explain any One Activity of Build Management.	4	CO1
Q2.	“AI & ML will foster DevOps growth”. Do you agree with this statement? Write some technical points of your agreement or disagreement of this statement.	4	CO1
Q3.	What is the Significance of Apache Maven Tool? Write any four Build commands used in Maven with specifications.	4	CO3
Q4.	Explain Release Planning and Release Authorization activities of Release Management Process.	4	CO2
Q5.	Explain advantages and disadvantages of using a Code Coverage Tool.	4	CO3

**SECTION B (40 Marks)**

Q6.	Explain following Maven Goals in detail. a) Clean Goal b) Perform Goal	10	CO4
Q7.	Write short note on following a) JUnit Annotations b) Black Box Testing	10	CO1
Q8.	It is considered that 100% testing is not possible for a software. Why? Explain white box testing approach for unit Testing.	10	CO3
Q9.	Documentation is considered a very essential deliverable of a software project. Why? Explain Product Documentation in details.	10	CO3, CO2

	<b>OR</b>		
	What do you mean by Transitive Dependencies? Explain various features of Transitive Dependencies.		
<b>SECTION-C (40 Marks)</b>			
Q10.	<p>What is a Release? Define following phases of Release Lifecycle with Real-Time example of each phase.</p> <ul style="list-style-type: none"> <li>a) Pre-Alpha</li> <li>b) Alpha</li> <li>c) Beta</li> <li>d) Release Candidate</li> <li>e) General Availability</li> </ul>	<b>20</b>	<b>CO3, CO4</b>
Q11.	<p>Define Build Life Cycle in Detail. Discuss various phases of Build (Default) Life cycle of a Maven Project. Relate different Goals in corresponding phases of Build Life Cycle.</p> <p style="text-align: center;"><b>OR</b></p> <p>What is the Significance of Source Code Repository? Differentiate between CVS and SVN. Explain following source code repositories with their comparison.</p> <ul style="list-style-type: none"> <li>a) Github</li> <li>b) BitBucket</li> </ul>	<b>20</b>	<b>CO4 CO2</b>

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**SECTION A (20 Marks)**

S. No.		Marks	CO
Q1.	What is the difference between Pre-Alpha, Alpha and Beta Phases of Release Life Cycle	4	CO1
Q2.	Maven is more superior to Ant tool. Explain its core features which makes it more popular than other tools in same category.	4	CO1
Q3.	Software Testing is considered a very Important activity in Software Development. Why? Address any four major Impacts of Incomplete or Poor Testing.	4	CO3
Q4.	Explain any Four Major development and deployment problems solved by a Build Management Tool like Maven, Ant etc.	4	CO2
Q5.	Write a short note on Process Documentation for a software Project.	4	CO3

**SECTION B (40 Marks)**

Q6.	What is the difference between Reporting and Advanced site Reporting? How Reporting is performed using Maven Site Plugin? Explain.	10	CO1
Q7.	Why POM file is also known as the configuration file of Maven? Explain its significance in Maven Build Management Tool. Explain any two major component of Project Object Model.	10	CO1
Q8.	What is a Build? What are the various activities involved in Build Management Process. Explain with Example.	10	CO1
Q9.	What do you mean by Dependency Scope? Explain various types of Dependency Scopes in detail.	10	CO3, CO2

	<b>OR</b>		
	<p>Explain following type of documentation in detail.</p> <p>a) System Documentation</p> <p>b) User Documentation</p>		
<b>SECTION-C (40 Marks)</b>			
Q10.	<p>What do you mean by Code Coverage? Explain various Code Coverage Criteria in Details. Compare any two code coverage tools.</p>	<b>20</b>	<b>CO3, CO4</b>
Q11.	<p>What are three Life Cycles in Maven? Discuss various phases of clean Life Cycle of a Maven Project. Relate different Goals in corresponding phases of Clean Life Cycle.</p> <p style="text-align: center;"><b>OR</b></p> <p>What are Repository and Dependency in Maven? Explain with an example the following Repositories used for Maven.</p> <p>a) Local Repository</p> <p>b) Central Repository</p>	<b>20</b>	<b>CO2, CO4</b>