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**21CSTE6042**

**B. E. Degree (Autonomous) Sixth Semester End Examination (SEE),**

**JAVA FULL STACK DEVELOPMENT**

**(Model Question Paper –II)**

**Time: [ 3 Hours ]**

**[ Maximum Marks: 100]**

**Note**    Answer ANY ONE from Question No. 1 and 2  
 Answer ANY ONE from Question No. 3 and 4  
 Answer ANY ONE from Question No. 5 and 6  
 Answer ANY ONE from Question No. 7 and 8  
 Answer ANY ONE from Question No. 9 and 10

Q.NO		Answer Five Full Questions	Marks	CO'S	Bloom's Level
1	a.	Explain the concepts of Object Orientation.	04 Marks	CO 1	L 1,2
	b.	What is String Parsing in Java? Explain parsing of Integers to String with a program example.	06 Marks	CO 1	L 1,2
	c.	Design JAVA code snippet to demonstrate the creation of Threads in two different ways.	10 Marks	CO 1	L 5
<i>Or</i>					
2	a.	Explain how type safety can be achieved in Collections with an example.	08 Marks	CO 1	L2
	b.	Design Java code snippet to demonstrate the following i.foreach loop      ii.Switch      iii.dowhile	12 Marks	CO 1	L5
3	a.	Explain how concurrency problems are overwhelmed in Collections with example.	10 marks	CO 2	L1,2
	b.	Design and implement a simple JDBC application program.	10 Marks	CO 2	L5
<i>Or</i>					

<b>4</b>	<b>a.</b>	Write note on Design Patterns in Java i.Creational ii.Structural iii.Behavioural	<b>10 marks</b>	<b>CO 2</b>	<b>L2</b>
	<b>b.</b>	Define Streams. List out the different StreamAPI Operations and explain with an example.	<b>10 Marks</b>	<b>CO 2</b>	<b>L1,2</b>
<b>5</b>	<b>a.</b>	Define JPA. Explain the properties of an Entities objects. Design and implement a simple entity program for employee class.	<b>10 Marks</b>	<b>CO 3</b>	<b>L1,5</b>
	<b>b.</b>	Explain One-to-many Entity Relation mapping both in unidirectional and bidirectional way with an example.	<b>10 Marks</b>	<b>CO 3</b>	<b>L2</b>
<b>Or</b>					
<b>6</b>	<b>a.</b>	Explain JPA Architecture and how it is related to ORM.	<b>10 Marks</b>	<b>CO3</b>	<b>L3</b>
	<b>b.</b>	Explain the purpose of EntityManager in JPA.	<b>05 Marks</b>	<b>CO3</b>	<b>L2</b>
	<b>c.</b>	List some of JPA query methods and write about them.	<b>05 Marks</b>	<b>CO3</b>	<b>L2</b>
<b>7</b>	<b>a.</b>	Explain Spring Framework Architecture in detail.	<b>10Marks</b>	<b>CO4</b>	<b>L1,5</b>
	<b>b.</b>	Explain some of the most used Spring Boot annotations with an example.	<b>06 Marks</b>	<b>CO4</b>	<b>L1,2</b>
	<b>c.</b>	List out the difference between Spring Boot and Spring MVC.	<b>04 Marks</b>	<b>CO4</b>	<b>L1</b>
<b>Or</b>					
<b>8</b>	<b>a.</b>	Design and implement simple spring boot program to print "WELCOME TO SPRING BOOT".	<b>10 Marks</b>	<b>CO4</b>	<b>L5</b>
	<b>b.</b>	Explain Bean Lifecycle in Spring Framework.	<b>10Marks</b>	<b>CO4</b>	<b>L2</b>
<b>9</b>	<b>a.</b>	Define Angular JS. Explain features of Angular JS.	<b>10 Marks</b>	<b>CO5</b>	<b>L1,2</b>
	<b>b.</b>	Explain the following Angular JS Directives with an example:	<b>10 Marks</b>	<b>CO5</b>	<b>L1,2</b>

		i. ng-app ii. ng-init			
<b>Or</b>					
<b>10</b>	<b>a.</b>	Design the code for simple “Hello World” Angular JS application and showcase the Model, View and Controller part in it.	<b>10 Marks</b>	<b>CO5</b>	<b>L2</b>
	<b>b.</b>	Differentiate among Javascript and Node.js.	<b>05 Marks</b>	<b>CO5</b>	<b>L1</b>
	<b>c.</b>	Explain Angular JS Modules.	<b>05 Marks</b>	<b>CO5</b>	<b>L2</b>