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21CSTE6042

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

JAVA FULL STACK DEVELOPMENT

(Model Question Paper –III)

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. | Write about i)Gradle Fundamentals ii)TDD with Junit 5. | 10 Marks | CO 1 | L 5 |
| Or | | | | | |
| 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 |
| Or | | | | | |

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|-----------|-----------|--|-----------------|-------------|-------------|
| 4 | a. | Write note on: i.JDBC API Components ii.JDBC Statements | 10 marks | CO 2 | L2 |
| | b. | Define Streams. List out the different StreamAPI Operations and explain with an example. | 10 Marks | CO 2 | L1,2 |
| | | | | | |
| 5 | a. | Define Hibernate and its architecture. Explain the properties of an Entities objects. Design and implement a simple entity program for employee class. | 10 Marks | CO 3 | L1,5 |
| | b. | Demonstrate the concept of crud operations on data in JPA. | 10 Marks | CO 3 | L2 |
| Or | | | | | |
| 6 | a. | Explain JPA Architecture and how it is related to ORM. | 10 Marks | CO3 | L3 |
| | b. | Explain the purpose of EntityManager in JPA. | 05 Marks | CO3 | L2 |
| | c. | List some of JPA query methods and write about them. | 05 Marks | CO3 | L2 |
| 7 | a. | Explain Spring Framework Architecture in detail. | 10Marks | CO4 | L1,5 |
| | b. | Explain some of the most used Spring Boot annotations with an example. | 06 Marks | CO4 | L1,2 |
| | c. | List out the difference between Spring Boot and Spring MVC. | 04 Marks | CO4 | L1 |
| Or | | | | | |
| 8 | a. | Design and implement simple spring boot program to print "WELCOME TO SPRING BOOT". | 10 Marks | CO4 | L5 |
| | b. | Explain Bean Lifecycle in Spring Framework. | 10Marks | CO4 | L2 |
| 9 | a. | Define Angular JS. Explain features of Angular JS. | 10 Marks | CO5 | L1,2 |
| | b. | Explain the following Angular JS Directives with an example: | 10 Marks | CO5 | L1,2 |

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