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**Seventh Semester B.E. Degree Examination, Feb./Mar. 2022**  
**Java and J2EE**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting at least TWO full questions from each part.**

**PART – A**

- 1
  - a. Define byte code. How does it help java programs to achieve portability and security? (06 Marks)
  - b. Explain the syntax of for-each loop. Write a java program to copy elements of an array into another array using for-each loop. (08 Marks)
  - c. Define type casting. Explain with an example. (06 Marks)
- 2
  - a. What is meant by instance variable hiding? How to overcome it? (04 Marks)
  - b. Explain with example the following:
    - i) Super
    - ii) Method overriding. (06 Marks)
  - c. What is applet? Write a Java Applet to display “Welcome In Java Applet” in status window and “Good Morning” in applet’s window. (04 Marks)
  - d. What is Exception? Create a try block that is likely to generate two types of exception and incorporate necessary catch blocks to handle them. (06 Marks)
- 3
  - a. What is thread? Explain two ways of creating a thread in Java with example. (10 Marks)
  - b. What is meant by thread priority? Explain how to set and get the thread priority with example. (06 Marks)
  - c. What is an anonymous inner class? Explain with an example. (04 Marks)
- 4
  - a. Explain the MVC architecture of swing. (05 Marks)
  - b. What is Swing? Describe the two key features of Swing. (05 Marks)
  - c. Write a program to create four types of buttons on JApplet. Use suitable events to show actions on the buttons and use JLabel to display the action involved. (10 Marks)

**PART – B**

- 5
  - a. Describe the various steps of JDBC process with code snippets. (10 Marks)
  - b. What is transaction processing? Write a program to execute a database transaction. (08 Marks)
  - c. List the different exception thrown by JDBC methods. (02 Marks)
- 6
  - a. What are Servlets? Explain the different phases in the life cycle of a Servlet. (08 Marks)
  - b. Write a Java Servlet which reads two parameters from the web page say string1 and string2 and display the concatenated string in the browser window. (06 Marks)
  - c. Explain session tracking with example. (06 Marks)
- 7
  - a. Define JSP. Explain different types of JSP tags by taking suitable examples. (10 Marks)
  - b. What is RMI? Describe with code snippet RMI at server side. (10 Marks)
- 8
  - a. Explain entity Java bean with a skeleton code. (08 Marks)
  - b. Write short note on JAR file. (05 Marks)
  - c. List and explain EJB transaction attributes. (07 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.