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**Seventh Semester B.E. Degree Examination, July/August 2022**  
**JAVA & J2EE**

Time: 3 hrs.

Max. Marks:100

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

**PART – A**

- 1 a. List and explain the features of Java. (10 Marks)  
b. Discuss three OOP principles. (06 Marks)  
c. Explain the various operators available in Java Language. (04 Marks)
- 2 a. Define exception. Demonstrate the working of nested try blocks, with suitable examples. (08 Marks)  
b. What are Applets? Explain the different stages in the life cycle of an Applet. (08 Marks)  
c. Briefly explain the role of interface while implementing multiple inheritance in Java. (04 Marks)
- 3 a. What is the need of synchronization? Explain with an example, how synchronization is implemented in Java? (10 Marks)  
b. With syntax explain use of isAlive() and join () methods. (04 Marks)  
c. Write a program to implement producer-consumer problem, using threads. (06 Marks)
- 4 a. How AWT is different from swings? What are the 2 key features of it? Explain. (08 Marks)  
b. Explain the following with examples for each,  
(i) JTextField class.  
(ii) JButton class.  
(iii) JComboBox class. (12 Marks)

**PART – B**

- 5 a. Explain J2EE multitier architecture. (08 Marks)  
b. Give an overview of JDBC process. (08 Marks)  
c. What are transactions? Explain. (04 Marks)
- 6 a. Explain the life cycle of a servlet. (06 Marks)  
b. Write a note on :  
(i) Session tracking  
(ii) Cookies. (10 Marks)  
c. List and explain core classes that are provided in Javax.Servlet package. (04 Marks)
- 7 a. What is RMI? Describe with code snippet RMI at server side. (10 Marks)  
b. Discuss different types of JSP tags. (06 Marks)  
c. What is the difference between server side and client side Java RMI? (04 Marks)
- 8 a. Explain the various EJB transaction attributes. (08 Marks)  
b. Explain the difference between session beans and entity beans. (06 Marks)  
c. What is deployment descriptor? List the deployment descriptor for EJB1.1? (06 Marks)

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