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Seventh Semester B.E. Degree Examination, June/July 2019
Java and J2EE

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting
 atleast TWO questions from each part.**

PART – A

- 1 a. Explain three kinds of variables in Java. (06 Marks)
- b. What are arrays? List out the three steps to create an array. (04 Marks)
- c. Describe the process of building and running Java program with an example. (04 Marks)
- d. Discuss different access specifiers in Java. (06 Marks)
- 2 a. Define an Applet. Explain the skeleton of an applet with example program. (08 Marks)
- b. Explain the types of exceptions in Java. (06 Marks)
- c. What is difference between a superclass and subclass? Write a program to demonstrate the same. (06 Marks)
- 3 a. What are threads? Explain how to make the class threadable. (07 Marks)
- b. What is synchronization? Explain producer consumer problem with a program. (09 Marks)
- c. Write short notes on sources of events. (04 Marks)
- 4 a. What are swing components? Explain atleast 4 swing components. (06 Marks)
- b. What are containers? Explain a simple container. (06 Marks)
- c. Write a short note on : (08 Marks)
 - i) JTabbedPane
 - ii) JScrollPane
 - iii) JList
 - iv) JComboBox.

PART – B

- 5 a. Explain JDBC process in detail. (12 Marks)
- b. Write a short notes on :
 - i) J2EE
 - ii) J2SE
 - iii) ResultSet
 - iv) ResultSetMetaData. (08 Marks)
- 6 a. Explain the difference between the applet and servlet. (04 Marks)
- b. With a diagram, explain servlet life cycle. (08 Marks)
- c. With a program, explain handling HTTP requests and responses. (08 Marks)
- 7 a. Why we use JSP? Explain JSP tags. (08 Marks)
- b. Explain Apache Tomcat with example program. (06 Marks)
- c. Write a short notes on :
 - i) Session and cookies in JSP
 - ii) RMI. (06 Marks)
- 8 a. What is EJB? Explain three types of EJB that are suited to different purposes. (07 Marks)
- b. Explain session beans with an example program. (05 Marks)
- c. What are JAR file? Explain the benefits of JAR file format. (08 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.