|   | U.S.N  |    |  |  |
|---|--|----|--|--|
| P.E.S. College of Engineering, Mandya - 571 401<br>(An Autonomous Institution affiliated to VTU, Belagavi)<br>Sixth Semester, B.E. – Computer Science and Engineering<br>Semester End Examination; June - 2017<br>Java and J2EE |  |    |  |  |
| Tim   | e: 3 hrs Max. Marks: 100   |    |  |  |
| Note  | : Answer <b>FIVE</b> full questions, selecting <b>ONE</b> full question from each unit.<br><b>UNIT - I</b>   |    |  |  |
| 1 a.  | Explain the following:   | 10 |  |  |
|   | (i) Java Bytecode (ii) Java Buzzword.  | 10 |  |  |
| b.  | Define type wrappers. Explain the different types of type wrappers.  | 5  |  |  |
| c.  | Define exception. Explain exception handling mechanism in Java.  | 5  |  |  |
| 2 a.  | Distinguish between java and C++.  | 6  |  |  |
| b.  | Define package. With a sample code, explain the concept of package.  | 10 |  |  |
| c.  | Explain the concept of auto boxing in Java.  | 4  |  |  |
|   | UNIT - II  |    |  |  |
| 3 a.  | With an example program, explain java thread model.  | 10 |  |  |
| b.  | What are generics? Explain generic with a java program.  | 10 |  |  |
| 4 a.  | Write a Java program to demonstrate multiple threads (at least three child threads).   | 8  |  |  |
| b.  | Write a java program that implements client-server communication by writing message typed at server across the software to the client side where they are displayed. | 8  |  |  |
| c.  | What are generic interfaces?   | 4  |  |  |
| UNIT - III  |  |    |  |  |
| 5 a.  | Explain in detail how to access a collection using an iterator?  | 10 |  |  |
| b.  | Define applet. Write a Java applet program that creates thread that scrolls message from right to left across applet's window.                                       | 10 |  |  |
| 6 a.  | Write a Java program for handling keyboard events.   | 10 |  |  |
| b.  | Write a note on HTML Applet tag.   | 6  |  |  |
| c.  | Explain in brief Inner classes.  | 4  |  |  |
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## UNIT - IV

| 7 a.     | Describe the working of JDBC. List and explain the different types of JDBC drivers. | 10 |  |
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| b.       | Define Servlet. Explain the life cycle of Servlet.                                  | 10 |  |
| 8 a.     | Explain what is session tracking with an example program?                           | 10 |  |
| b.       | With a sample program, explain Resultset concept.                                   | 10 |  |
| UNIT - V |   |    |  |
| 9 a.     | Define JSP. List and explain the Various tags used in JSP.                          | 10 |  |
| b.       | What is EJB? Explain in brief Entity Java Bean.                                     | 10 |  |
| 10 a.    | Explain in detail java RMI.   | 10 |  |
| b.       | Explain in detail deployment descriptor of EJB.                                     | 10 |  |
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