



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Seventh Semester, B.E. - Computer Science and Engineering

Semester End Examination; Dec - 2016/Jan - 2017

Java and J2EE

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

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|------|---|---|
| 1 a. | Define JDK. What are the different tools available in JDK? With neat labeled diagram explain how they interact with each other? | 6 |
| b. | Explain the characteristics of Java. | 8 |
| c. | Explain the method overloading and method overriding with suitable example. | 6 |
| 2 a. | With example, explain the labeled break and labeled continue statements. | 6 |
| b. | Illustrate the use of following keywords with examples for each; | 7 |
| | (i) super (ii) final. | |
| c. | Write a Java program to create a try block, that is to generate 3-different types of exceptions and then incorporate necessary catch blocks to catch and handle exceptions. | 7 |

UNIT - II

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| 3 a. | Describe the role of synchronization in threads. Demonstrate the program using synchronized methods. | 8 |
| b. | Define delegation event model. Describe the roles of sources, listeners and events in event handling mechanism. | 6 |
| c. | Write a Java program to show the status of key board key (excluding special keys) in the status window and which echoes keystrokes to the applet window. | 6 |
| 4 a. | Explain the lifecycle of applets. | 6 |
| b. | With syntax explain HTML applet tag. | 6 |
| c. | Write a HTML document to pass 3-numerical values to a applet and also write an applet to receive those 3 values and display the largest among them. | 8 |

UNIT - III

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|------|--|----|
| 5 a. | Define swing. Discuss the features of string. List the components of the swing. Write a seeking application program to display a window. | 11 |
| b. | With syntax explain the following : | 9 |
| | i) JScollpane (ii) JComboBox (iii) JTabbedPane. | |
| 6 a. | Describe the working of JDBC. List and explain the different types of JDBC drivers. | 10 |

- b. Write a program to, 10
- (i) To read the Resultset (ii) To delete the row in the Resultset.

UNIT - IV

- 7 a. Define servlet. Explain the lifecycle of the servlet. 6
- b. List and write the description of core classes provided in Javax.Servlet package. 3
- c. List out the differences between CGI and servlet. 4
- d. Define session. Write Java code to illustrate how session tracking is handled in Java with servlets? 7
- 8 a. Define cookie. Write a JSP to read cookies. 6
- b. Describe the different types of JSP tags with example. 6
- c. Write an XHTML document that collects a number from client and calls a JSP to display the largest digit of given number on screen. 8

UNIT - V

- 9 a. Using Java mail API, Write programs to read an e-mail and to delete an e-mail. 10
- b. Define RMI. Write server side and client side programs to simulate a RMI. 10
- 10 a. Explain the EJB interface and environment with the help of a block diagram. 10
- b. Define Entity Java Bean. With skeleton explain an Entity Java Bean. 10

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