

Q.P. Code :01758

[Time: 2½ Hours]

[Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. **All** questions are **compulsory**.
 2. Make **suitable assumptions** wherever necessary and **state the assumptions** made.
 3. Answers to the **same question** must be **written together**.
 4. Numbers to the **right** indicate **marks**.
 5. Draw **neat labeled diagrams** wherever **necessary**.
 6. Use of **Non-programmable** calculator is **allowed**.

Q.1 Attempt any two of the following: (10)

- a. What is JFrame? Explain its constructors and methods.
- b. What are adapter classes in Java? Why are they used?
- c. Explain the java event delegation model.
- d. What are the different types of layout in java? Explain BorderLayout.

Q.2 Attempt any two of the following: (10)

- a. How is a progress bar created and used in java?
- b. Write a java program to demonstrate the use of Tabbed Panes.
- c. What are trees in java swings? Explain how nodes are created in a tree.
- d. Explain the component 'JFileChooser'.

Q.3 Attempt any two of the following: (10)

- a. What are servlets in java? Why do we need them?
- b. Explain the ServletConfig Interface in java.
- c. Explain the life cycle of a servlet.
- d. Write a note on: HttpServlet and HttpSession

Q.4 Attempt any two of the following: (10)

- a. What is directive in Java Server Pages? Explain page directives.
- b. Explain the steps for Database connection and data retrieval in java with an example.
- c. Describe the drivers used in Java Database Connectivity.
- d. Explain the Scrollable Result Sets with example.

Q.5 Attempt any two of the following: (10)

- a. What are the different types of beans in java? Explain.
- b. Explain the process flow of Java Server Faces.
- c. Explain the Enterprise Java Bean architecture.
- d. Give an example of a configuration file used in Java Server Faces. Explain its components.

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Q.6 Attempt any two of the following: (10)

- Explain the hibernate architecture in detail.
- Explain FilterDispatcher and any two roles of action components used in struts.
- What is the importance of hibernate mapping file? Explain with examples.
- What are interceptors? How are interceptors used in Struts?

Q.7 Attempt any three of the following: (15)

- Explain the concept on inner classes and anonymous inner classes used in event handling.
- Write a java swing program to create menus.
- Why do we need the ServletContext Interface in java?
- Write a note on: Updateable ResultSet used in Java DataBase Connectivity
- Explain the concept of MVC architecture with respect to Java Server Faces and Struts.
- Explain any five implicit objects used in JSP.