

TyBSc IT (V) | Adv. Java / 70

Q.P. Code: 23210

(Time: 2 $\frac{1}{2}$ hours)

Total Marks: 75

- 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 calculators is allowed.

1. **Attempt any two of the following:** 10
 - a. Explain the use of adapter class with suitable example.
 - b. Explain Delegation Event model. What are two steps in using the java delegation event model?
 - c. Explain the various Layout Managers available in AWT.
 - d. Write AWT based Java program that will read a string from user and display the length of the string.

2. **Attempt any two of the following:** 10
 - a. Write a Java program using swing components that displays table containing student information (Name, Address, 10th %, 12th %, Emailed, Contact No.).
 - b. What is use of JColorChooser? Write down the constructors and methods of the same.
 - c. Distinguish Between AWT & JFC (Swing).
 - d. Explain Root Pane, Glass Pane, Layered Pane, Content Pane and Desktop Pane.

3. **Attempt any two of the following:** 10
 - a. What are servlets? What are the advantages of servlet over CGI?
 - b. What is Request Dispatcher? What are its two methods?
 - c. Explain the ServletRequest interface of servlet API.
 - d. Write a servlet program to display the factorial of a given number.

4. **Attempt any two of the following:** 10
 - a. List and explain the Directive tags of JSP.
 - b. Explain JDBC architecture.
 - c. Write the purpose of the following JDBC classes:
i. DriverManager ii. ResultSet iii. Statement iv. Connection
v. PreparedStatement
 - d. What are the advantages and disadvantages of Java Server pages?

5. **Attempt any two of the following:** 10
 - a. Explain Model-view-controller architecture.
 - b. List various phases of JSF lifecycle. Explain in short.
 - c. What is Facelet? Write the features of Facelet.
 - d. Explain the benefits of EJB.

6. **Attempt any two of the following:** 10
 - a. Explain Architecture of Hibernate framework in detail.
 - b. What is value stack in struts? State and explain the execution flow of value stack.
 - c. Write a short on Interceptors in struts.
 - d. Explain structure of hibernate.cfg.xml file.

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7. Attempt **any three** of the following:
- a. What is CheckBoxGroup? Explain with Example.
 - b. Write a java program to demonstrate the use of Tabbed Panes.
 - c. What is the purpose of WEB-INF file? Explain.
 - d. Write a JDBC program that inserts values in database. [table Name : Book, Fileds : Bookid, Title, Author, Publisher]
 - e. What are the different types of enterprise beans? Explain.
 - f. What is OGNL? Explain the execution flow of OGNL.
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