



Roll No:

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**BTECH**  
**(SEM VI) THEORY EXAMINATION 2023-24**  
**WEB TECHNOLOGY**

TIME: 3 HRS

M.MARKS: 100

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt all questions in brief. 2 x 10 = 20**

Q no.	Question	Marks	CO
a.	Differentiate between WWW and Internet.	02	1
b.	Write Java Applet code to display Hello World message.	02	1
c.	Outline the differences between HTML and XML.	02	2
d.	Write suitable XML markup to display the data of books with title, author, publisher and price. Also explain Well-formed Formula with this example.	02	2
e.	Describe various applications of JavaScript as a client side scripting language.	02	3
f.	Describe URL class in Java. Write a Java code display protocol, port number, host of given url with the help of this class.	02	3
g.	Describe the property of persistence of Java Beans.	02	4
h.	Explain Java database connectivity(JDBC).	02	4
i.	Demonstrate the Life cycle of a Servlet.	02	5
j.	Describe JSP directives and their applications.	02	5

**SECTION B**

**2. Attempt any three of the following: 3 x 10 = 30**

a.	Describe Threads and the methods to create Threads in Java. Create a new Thread class by extending Thread class. Run three threads of this class simultaneously with different priority to demonstrate priority with this example.	10	1
b.	Describe HTML forms. Design a HTML form with various input types for online college admission query task.	10	2
c.	Illustrate and compare various dialog boxes in JavaScript with suitable JavaScript code.	10	3
d.	Explain various types of Database drivers available for JDBC with their respective advantages and drawbacks.	10	4
e.	Compare following: i) Get vs Post ii) Servlet vs JSP iii) Session vs Cookie iv) out and exception implicit objects in JSPs	10	5

**SECTION C**

**3. Attempt any one part of the following: 1 x 10 = 10**

a.	Describe Abstract classes and Interfaces in Java. Write suitable Java programs to demonstrate both.	10	1
b.	Describe the packages in Java with their applications, advantages and types. Describe keywords 'import' and 'package' with suitable examples.	10	1



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**4. Attempt any one part of the following: 1 x 10 = 10**

a.	Demonstrate XML Schemas with suitable example. Also describe the advantages of XML Schemas over XML DTD.	10	2
b.	Demonstrate the difference between XML DOM and SAX parsers.	10	2

**5. Attempt any one part of the following: 1 x 10 = 10**

a.	Describe Objects in JavaScript. Illustrate the usages of Array, Date, Math and String Objects in JavaScript.	10	3
b.	Describe following: i) Socket and ServerSocket ii) DatagramPacket and Datagram Socket iii) InetAddress iv) URLConnection	10	3

**6. Attempt any one part of the following: 1 x 10 = 10**

a.	Explain the EJBs. Explain session bean, message bean and entity beans. Also explain the drawbacks of EJBs.	10	4
b.	Write a program using JDBC to create a table in database with all steps included. Also differentiate between Statement and PreparedStatement.	10	4

**7. Attempt any one part of the following: 1 x 10 = 10**

a.	Discuss the role of the HttpServletRequest and HttpServletResponse interfaces in servlet programming. Provide examples of how you can use these interfaces to retrieve request parameters, set response headers, and send data back to the client.	10	5
b.	Explain the architecture and lifecycle of a JavaServer Page (JSP) within a web application. Discuss the compilation process of JSP files into servlets and how they are executed by the servlet container. Also Discuss commonly used standard actions such as <jsp:forward>, <jsp:useBean>, and <jsp:setProperty>.	10	5