

				Su	bjec	t Co	de:	KIT	501
Roll No:									

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## **BTECH** (SEM V) THEORY EXAMINATION 2024-25 WEB TECHNOLOGY

TIME: 3 HRS **M.MARKS: 100** 

**Note:** Attempt all Sections. In case of any missing data; choose suitably.

1.	SECTION A Attempt <i>all</i> questions in brief.	2 x 1	0 = 20
Q no.	Question	CO	Leve
a.	Define the client-server computing model.	1	2
b.	What is the difference between JDK and JVM?	1	2
c.	How do you create a table in HTML? Name the basic tags used.	2	2
d.	What is a Document Type Definition (DTD) in XML?	2	2
e.	What is JavaScript, and how is it different from Java?	3	2
f.	Define the role of the InetAddress class in Java networking.	3	2
g.	Define the term "property" in JavaBeans.	4	2
1.	What is the purpose of the getProperty and setProperty methods in JavaBeans?	4	2
.•	What is a servlet in Java?	5	2
•	What is the difference between doGet() and doPost() methods in servlets?	5	2
	SECTION B		
2.	Attempt any three of the following:	10 x	3 = 3
a.	Discuss the role of web protocols like HTTP, FTP, and SMTP.	1/2	2
b.	Write an HTML program to create a table with rowspan and colspan attributes.	2	3
c.	What are JavaScript objects? Explain how to create and use objects with examples.	3	3
d.	Discuss the difference between stateful and stateless session beans. Provide an example of each.	4	4
e.	Explain the servlet life cycle with a diagram. Discuss the role of the init(), service(), and destroy() methods.	5	3
3.	SECTION C Attempt any <i>one</i> part of the following:	10 x	1 = 1
a.	Explain the concept of method overloading and method overriding in Java.	1	2
b.	Write a program to demonstrate reading from and writing to a file in Java.	1	3
4.	Attempt any one part of the following:	10 x	1 = 1
a.	What is XSLT? Write an example to demonstrate its use in transforming XML data.	2	3
b.	Discuss the DOM structure and its use in XML parsing.	2	3
5.	Attempt any one part of the following:	10 x	1 = 1
a.	How do Java sockets handle network communication? Provide a detailed explanation.		3
b.	Discuss the steps involved in establishing a TCP/IP connection between	3	3



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6.	Attempt any one part of the following:							
a.	Explain how to perform batch processing in JDBC. Write a program to	4	3					
	demonstrate it.							
b.	Compare and contrast CallableStatement, PreparedStatement, and	4	4					
	Statement in JDBC. Provide use-case examples for each.							

7.	Attempt any <i>one</i> part of the following:	10 x 1	1 = 10
a.	What are JSP implicit objects? Explain their purpose with examples.	5	3
b.	Discuss the advantages of using Java Server Pages (JSP) over servlets.	5	3

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