

[This question paper contains 4 printed pages]

Your Roll No. :

Sl. No. of Q. Paper : 7406 J

Unique Paper Code : 32341501

Name of the Course : B.Sc.(Hons.) Computer Science

Name of the Paper : Internet Technologies

Semester : V

Time : 3 Hours Maximum Marks : 75

Instructions for Candidates :

- Write your Roll No. on the top immediately on receipt of this question paper.
- Question No. 1 is compulsory for **Section-A**.
- Attempt any **four** questions from **Section-B**.

Section - A

Note : Attempt **all** questions from this Section.

- Describe Auto-boxing and Auto-unboxing in java. 3
 - What would be the output of : 3
 - parseFloat("xy2.57")
 - document.write(1+2+"3")
 - fn:contains('test String', 'TEST')

P.T.O.

- (c) Write a JavaScript code to display the information about the Operating System and browser being used by the Client. 3
- (d) What is the significance of Introspector and Event Set Descriptor classes in Java Bean API? 3
- (e) List the types of driver available in JDBC and explain when are they used. 4
- (f) Consider the following table : 4

Name	EmpID
ABC	100
PQR	101
DEF	102
GHI	103

Write down the output when the following methods have been executed in sequence :

- (i) next ()
- (ii) relative (2)
- (iii) previous ()
- (iv) relative (-2)
- (g) What are directives ? List and explain usage of different types of directives available in JSP. 5
- (h) Explain Math object with its five methods and five properties. 5
- (i) Explain HTTP request and response header in detail. 5

Section - B

Note : Attempt any **four** questions from this Section.

2. (a) Write a program to implement Dynamic Stack using Arraylist with the help of an abstract stack class. 5
- (b) How array can be defined in JavaScript ? Explain the join method with the help of an example. 2+3=5
3. (a) Define a student bean class for getting and setting the following properties : 6
- (i) Name
- (ii) Roll No.
- (iii) Address
- (b) Explain `<sql:setDataSource>` and its attributes. 4
4. (a) What is connection pooling ? Explain its working with the help of an example. 1+4=5
- (b) Write a JavaScript program which takes list of user input and sorts it using bubble sort. 5
5. (a) Give two ways to read and insert bean properties in a JSP page. 4
- (b) Design a JSP page to implement a custom tag "today" using tag handler class and descriptor file. 6
6. (a) Write a JavaScript program with 3 textboxes and 3 radio buttons to display the functionality of max, min and average based on the user selection. 5

(b) Explain the lifecycle of a JSP page. How it is different from the life cycle of a servlet ? 5

7. (a) Differentiate between : 6

(i) Get and Post method

(ii) Client-side and Server-Side scripting

(iii) RowSet and ResultSet

(b) Explain the output of following JSP code : 4

```
<%@ taglib uri="http://java.sun.com/jsp/
jstl/core" prefix="c" %>
<%@ taglib uri="http://java.sun.com/jsp/
jstl/functions" prefix="fn" %>
<html>
<head>
<title>Using JSTL Functions</title>
</head>
<body>
<c:set var="string1" value="This is first
String." />
<c:set var="string2" value="This <b>is second
String.</b>" />
<p>With escapeXml() Function:</p>
<p>string (1) : ${fn:escapeXml(string1)}</p>
<p>string (2) : ${fn:escapeXml(string2)}</p>
<p>Without escapeXml() Function:</p>
<p>string (1) : ${string1}</p>
<p>string (2) : ${string2}</p>
</body>
```