

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 0113

Roll No.

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B.Tech.

(SEMESTER-IV) THEORY EXAMINATION, 2012-13

WEB TECHNOLOGY

Time : 3 Hours]

[Total Marks : 100

SECTION – A

1. Attempt **all** parts. **10 × 2 = 20**
- What is a Web Portal ? Write name of two public web portal.
 - Differentiate between TCP and UDP.
 - Which browsers support DHTML and how will non-supporting browsers handle DHTML ?
 - What is the difference between undefined and null in Java Script ?
 - Briefly describe Bean Development Kit (BDK).
 - What is the difference between Servlet Context and Servlet Config ?
 - What is Jasper ?
 - What are implicit objects in JSP ?
 - Is it possible to connect to multiple databases simultaneously ? If yes, then on what factor it depends upon.
 - What configuration files are used in Struts ?

SECTION – B

2. Attempt any **three** parts : **3 × 10 = 30**
- How a Web project differs from a traditional software projects ? One should not overlook two key issues while developing a web-site: hosting and content management. Explain how these two terms are important for building an effective Web strategy.



- (b) Write a script using Java Script that checks the given input for a valid name, password length more than 6 characters and age field in the range of 1 to 99. Also write the appropriate HTML code to implement this script.
- (c) Describe the steps to implement a stateless session bean in detail.
- (d) Explain the inbuilt objects of JSP. What is the difference between `<jsp:include page=...>` and `<%@ include file=...>` ?
- (e) How many different kinds of JDBC drivers are available ? Explain each in brief.

SECTION – C

Attempt **all** parts :

5 × 10 = 50

3. Attempt any **two** parts :

- (a) List the key responsibilities of a developer and a designer in a Web team.
- (b) What is a digital certificate ? Who issues this certificate and what is the purpose of digital certificate ?
- (c) What is copyright infringement ? How is it taking place ?

4. Attempt any **two** parts :

- (a) Write a Java Script function to validate user name.
- (b) What role do forms play in making a web page dynamic ?
- (c) How is XML defined ? Write down the XML syntax and structure rules.

5. Attempt any **two** parts :

- (a) How many different types of EJB components are available ? Explain.
- (b) Explain the lifecycle of Servlet.
- (c) How generic servlet is different from HttpServlet ? Write a program to create a servlet using HttpServlet class that displays first 100 prime numbers.

6. Attempt any **two** parts :

- (a) Explain the following in the context of JSP :
 - (i) Request and response objects.
 - (ii) Cookies and their use.

- (b) How can we implement a thread-safe JSP page ? What are the advantages and disadvantages of using it ?
- (c) What is the difference between a Web-server and an Application-server ? Is Apache Tomcat an application server ? Explain your answer.

7. Attempt any **two** parts :

- (a) What is the advantage of using Entity bean for database operations over directly using JDBC API to do database operations ? When one should be used over the other ?
- (b) Describe the various steps involved in establishing a JDBC connection. Use a suitable example to demonstrate.
- (c) What is Struts ? Using an example demonstrates the use of Struts for a simple web application using HTML forms.