Code: CT51 Subject: WEB TECHNOLOGY

ALCCS

Time: 3 Hours

JUNE 2016

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE OUESTION PAPER.

NOTE:

- Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.
- Parts of a question should be answered at the same place.
- **Q.1** a. Compare Application Server with web server.
 - b. Write the advantages of using Cascading style sheet in web page design.
 - c. Write short notes on XSLT.
 - d. Write any four key principles of good Ajax applications.
 - e. Write some of the characteristics of an enterprise bean.
 - f. What is the JMS API?
 - g. What is an XML schema?

 (7×4)

- **Q.2** a. Following are the content to put into the XML document:
 - (i) The root element is "Employee_Info"
 - (ii) As the content for "Employee_Info," "Employee" occurs 0 or more times
 - (iii) As content of "Employee," "Name," "Department," "Telephone," and "Email" elements occur once in respective order
 - (iv) "Name," "Department," "Telephone," and "Email" content are text strings
 - (v) "Employee" has an attribute called "Employee_Number"
 - (vi) "Employee Number" content must be *int* type

Prepare XML Schema to provide a schema definition for the content given above (employee.xs). Also prepare a valid XML document (employee.xml) for the XML Schema (employee.xs). Also create the tree structure for information given above.

(3+3+3)

- b. Write a simple program that downloads and prints out the contents of a specified POP mailbox.
- Q.3 a. Explain in detail the different modules of Spring Framework. (10)
 - b. What is EJB container? Explain the different services provided by EJB container to the application developer. (8)

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Q.4 a. Explain the following Ajax communication techniques with their advantages and disadvantages.

- (i) The hidden frame techniques
- (ii) XML Http Requests (XHR)

(6+6)

- b. Write a function in java script that validates if the content has the general syntax of an email. (6)
- Q.5 a. Compare the features of HTML, DHTML and XML. (10)
 - b. What is Servlet? List any four interfaces defined in javax.http.servlet. (2×4)
- **Q.6** a. What are the different classes of objects in the model-view-controller (MVC) architecture? Also write the advantages of using MVC while designing web applications. (9)
 - b. With the help of suitable figure, describe the basic architecture of JMS application. (9)
- Q.7 a. Write a program to implement socket programming using DataGram class in java. (9)
 - b. Write a Simple bean component which has three properties length, width and height. Write a program for accessing the properties of the bean. (9)