Code: CT51　　　　　　　**Subject: WEB TECHNOLOGY**

ALCCS – NEW SCHEME

Time: 3 Hours　　　　　| **AUGUST 2013** |　　　　Max. Marks: 100

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

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Q.1　a. Compare Application Server with web server.

　　　b. Write the advantages of using Cascading style sheet in web page design.

　　　c. Define XQL. How it is different from SQL?

　　　d. List two advantages and two disadvantages of dynamic script loading.

　　　e. Write some of the characteristics of an enterprise bean.

　　　f. Write short notes on DWR.

　　　g. How Does the JMS API Work with the Java EE Platform?　　　　　　**(7×4)**

Q.2　a. Create a HTML form that has the following controls:　　　　　　　**(9)**
- A TEXT control called `firstName` to collect the first name.
- A TEXT control called `lastName` to collect the last name.
- A TEXT control called `email` to collect the email address.
- A TEXT control called `phone` to collect the phone number.
- A SELECT control called `software` for displaying a combo box with software list.
- A SELECT control called `os` for displaying a combo box with operating systems.
- A TEXTAREA control called txtArea for displaying problem description.
- A SUBMIT control called submit for submitting the information.

　　　b. Write a simple program that downloads and prints out the contents of a specified POP mailbox.　　　　　　**(9)**

Q.3 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.   **(4+4+4)**

   b. Write a function in java script that validates if the content has the general syntax of an email.   **(6)**

Q.4 a. With the help of a diagram, explain the lifecycle of Stateful Session bean state.   **(9)**

   b. Write a command line argument that parses a document and counts the number of elements in it.   The output must list the number of elements in the XML file given as argument on the command line.   **(9)**

Q.5 a. Explain Ajax web application model with the help of a diagram. Also explain principles and technologies behind Ajax.   **(10)**

   b. What is EJB container? Explain the different services provided by EJB container to the application developer.   **(8)**

Q.6 Explain the process of creating and sending an Ajax request using each of the following attributes:
   (i)   Using the event Attribute
   (ii) Using the execute Attribute
   (iii) Using the immediate Attribute
   (iv) Using the listener Attribute   **(4×4.5)**

Q.7 a. Write a Simple bean component which has three properties length, width and height. Write a program for accessing the properties of the bean.   **(9)**

   b. Explain the main architecture of JMS API Programming Model.   **(9)**