Code: CT51   **Subject: WEB TECHNOLOGY**

ALCSS – NEW SCHEME

Time: 3 Hours   **FEBRUARY 2012**   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.**
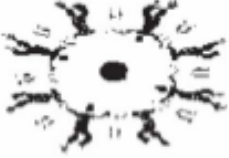- **Parts of a question should be answered at the same place.**

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Q.1   (7 × 4)

   a. How DHTML is different from HTML?

   b. Give meaning of the following socket primitives for TCP/IP:
      Socket, Bind, Listen, Accept, Connect, Send, Receive, Close

   c. What do you understand by a Socket communication?

   d. Give an example of XML document.

   e. Comment on the following statement:
      "AJAX is about better internet applications"

   f. What are thread pools? What are their advantages?

   g. What is an application server and a web application server?

Q.2 a. Write a Javascript example that displays date when a button is clicked.   **(8)**

   b. Write the HTML code to generate the Web Page given in Fig.1.   Take into consideration the requirements given below for designing the Web Page:
      (i)   Background colour of the page should be "Cyan".
      (ii)   Text style should be Comic Sans MS and colour should be Red.
      (iii) Picture used in the page is the file "activity.jpg"
      (iv)   Table should have a border of color blue.
      (v)   Use the concept of nested lists for creating the list given in the web page with specified bullets.
      (vi)   Pages linked to:
                  Indoor Activities as "in.html"
                  Outdoor Activities as "out.html"
      (vii) Bottom message should be of size 2.   **(10)**

Fig.1

Q.3 a. What are the statements normally present in a simple server program written in Java? Write an example program that illustrates creation of a server socket, waiting for client request, and then responding to a client that requested for connection by greeting it "Hello, R u there?" **(9)**

b. How do you use http client for sending request? Write an example program that retrieve files from the URL "http://www.myaddr.net/my/file" **(9)**

Q.4 a. What is XPath? How many nodes are there in XPath? Show different types of nodes in an example XML document. **(9)**

b. Write an example program that parses an XML string into an XML DOM object and then extracts some information from it with a JavaScript. **(9)**

Q.5 a. Why should we use AJAX for web application? What is GWT? What are the problems in AJAX that GWT tries to address? **(6)**

b. What is a Session Bean? Differentiate between two categories of Session Bean-Stateful and Stateless Session Beans.   **(6)**

c. In what way using the JMS API in a J2EE application differs from using it in a stand-alone client application?   **(6)**

Q.6 a. What steps are involved in developing a Stateful Session Bean? Explain using a suitable example program.   **(10)**

b. Discuss JMS programming model and architecture of JMS application.   **(8)**

Q.7   Answer any **FOUR**:

(i)   Fundamentals of protocol design
(ii) Name space and XML schema
(iii) EJB
(iv) SMTP protocol
(v) SAX 1.0   **(4.5×4)**