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Question Paper Code : 41161

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Seventh Semester

Computer Science and Engineering

080230044 — INTERNET PROGRAMMING

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. An image named image.gif is 200 pixels wide and 150 pixels high. Write an XHTML statement using the width and height attributes of the img element to perform each of the following transformations :

    (a) Increase the size of the image by 100 percent.

    (b) Change the width-to-height ratio to 2:1, keeping the width attained in the previous command

2. Write a CSS rule that places a background image halfway down the page, tiling it horizon-tally. The image should remain in place when the user scrolls up or down.

3. Write a simple script that contains a button and a counter in a div. The button should increment the counter each time it is clicked.

4. Write a Java program to perform matrix addition. Ensure that the matrices can be added before performing the addition.

5. What is ActiveX? List some of the most common uses of ActiveX.

6. Write a Javascript function distance that calculates the distance between two points (x1, y1) and (x2, y2). All numbers and return values should be floating-point values.

7. Differentiate GET and POST HTTP requests' processing in a servlet.

8. Give an example of redirecting requests to other resources in a servlet.

9. Differentiate IPv4 and IPv6 addresses and provide examples for both formats.

10. List some of the security issues in Internet programming.

PART B — (5 × 16 = 80 marks)

11. (a) A local university needs an XHTML document that allows prospective students to provide feedback about their campus visit. The XHTML document should contain a form with text boxes for a name, address and e-mail. Provide checkboxes that allow prospective students to indicate what they liked most about the campus. The checkboxes should include: students, location, campus, atmosphere, dorm rooms and sports. Also, provide radio buttons that ask the prospective students how they became interested in the university. Options should include : friends, television, Internet and other. In addition, provide a text area for additional comments, a submit button and a reset button.

Or

(b) Make a navigation button using a div with a link inside it. Give it a border, background, and text color, and make them change when the user hovers the mouse over the button using an external style sheet. The style sheet should validate at http://jigsaw.w3.org/css-validator/. The CSS should have no errors.

12. (a) Create a web page that enables the user to play the game of 15 with the following setup. There is a 4-by-4 board (implemented as an XHTML table) for a total of 16 slots. One of the slots is empty. The other slots are occupied by 15 tiles, randomly numbered from 1 through 15. Any tile next to the currently empty slot can be moved into the currently empty slot by clicking on the tile. The program should create the board with the tiles out of order. The user's goal is to arrange the tiles in sequential order row by row. Using the DOM and the *onclick* event, write a script that allows the user to swap the positions of the open position and an adjacent tile.

Or

(b) Write a Java program to read input texts from user and print the texts obtained in regular order (order in which obtained from user) and then in reverse order.

13. (a) Create a data source file with two columns: one for the URLs and one for URL descriptions. Bind the source file to a table to create a table of clickable links.

Or

(b) Write a Javascript program that reads a five-letter word from the user and produces all possible three-letter words that can be derived from the letters of the five-letter word. For example, the three-letter words produced from the word "bathe" include the commonly used words "ate," "bat," "bet," "tab," "hat," "the" and "tea." Output the results in an XHTML textarea.

14. (a) Explain the lifecycle of a servlet with a neat diagram. Describe each state in the lifecycle in detail.

Or

(b) Create a Java servlet to receive the user id and password of users and perform login against the data (user id and password) in table Logininfo in the database. Make assumptions necessary for creating a database connection and explicitly list all assumptions.

15. (a) List the steps for creating a protocol handler with an appropriate example protocol handler.

Or

(b) Write a Java network program called Client Tester that runs on a server, on the port specified on the command line, shows all data sent by the client, and allows to send a response to the client by typing it on the command line. Use two threads: one to handle input from the client and the other to send output from the server.

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