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Seventh Semester B.E. Degree Examination, June/July 2017
Programming the Web

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1
 - a. What is HTTP? Explain its phases in detail. (06 Marks)
 - b. Explain the following tags with examples: (09 Marks)
 (i) meta (ii) img (iii) a (iv) content-based style tags
 - c. Explain the standard XHTML document structure. (05 Marks)

- 2
 - a. Create, test and validate a XHTML document that has five frames. There must be two rows of frames, the first with three frames and the other with two frames. The frames in the first row must have equal width. The left frame in the second row must be 55 percent of the width of the display. Each of the frames in the top row must display a document that has a form. The left top frame must have two text boxes, each 30 characters wide, labeled Name and Address. The middle top frame must have five radio buttons with color name labels. The right top frame must have four checkboxes, labeled with four kinds of car equipment such as a CD player and air conditioning. The two bottom frames must have images of two different cars. The top row of frames must use 20 percent of the height of the display. (08 Marks)
 - b. Explain different levels of style sheets and their style specification formats. (06 Marks)
 - c. Create and test a XHTML document that describes nested ordered lists of cars. The outer list must have three entries: Compact, midsize and sports. Inside each of these three lists there must be two sublists of body styles. The compact and midsize car sublists are two door and four door, the sports car sublists are coupe and convertible. Each body-style sublist must have at least three entries, each of which is the make and model of a particular car that fits the category. The outer list must use uppercase Roman numerals, the middle lists must use uppercase letters, and the inner lists must use Arabic numerals. The background color for the compact car list must be pink, for the midsize car list it must be blue, for the sports car list, it must be red. All of the styles must be in a document style sheet. (06 Marks)

- 3
 - a. Explain the JS (JavaScript) string properties and methods with an example. (06 Marks)
 - b. Explain the different methods for the Date object in JavaScript. (05 Marks)
 - c. Write a JavaScript to compute the real roots of a given quadratic equation. (05 Marks)
 - d. Write a JavaScript to illustrate an array of arrays. (04 Marks)

- 4
 - a. Write a JavaScript to compare two passwords. (07 Marks)
 - b. Explain the DOM Tree Traversal and DOM Tree Modification. (05 Marks)
 - c. Write a JavaScript to illustrate dynamic stacking of images. (08 Marks)

PART – B

- 5 a. Create a XML document that lists ads for used airplane. Create a DTD for the same document. (10 Marks)
- b. Create a XML document for one student of VTU to illustrate XSLT formatting. Create XSLT style sheet by using child templates. (06 Marks)
- c. Explain the purposes of XML processors. (04 Marks)
- 6 a. Explain the uses of Perl. (03 Marks)
- b. Write Perl program for the following :
 Input : A file of text in which all words are separated by whitespace or punctuation, possibly followed by whitespace, where the punctuation can be a comma, a semicolon, a question mark, an exclamation point, a period or a colon. The input file is specified on the command line.
 Output : A list of all unique words in the input file in alphabetical order. (06 Marks)
- c. Explain briefly session and cookies in Perl. (04 Marks)
- d. Write a CGI-Perl program to use a cookies to remember the day of the last login from a user and display it when run. (07 Marks)
- 7 a. Create a XHTML document that uses PHP script to display the square root, square, cube and quad of numbers from 1 to 1 in the form of a table with the column labels as number, square root, square, cube and quad. (05 Marks)
- b. Explain in detail the database access with PHP and MySQL along with the examples. (15 Marks)
- 8 a. Describe briefly the MVC architecture and the ORM used by rails. (08 Marks)
- b. Explain Ruby string methods with an example. (08 Marks)
- c. Write a Ruby program for the following :
 input : Four numbers, representing the values of a, b, c and x.
 output : The value of the expression
 $a * x ** 2 + b * x + c$ (04 Marks)

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