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10CS73

Seventh Semester B.E. Degree Examination, Feb./Mar.2022
Programming the Web

Time: 3 hrs.   Max. Marks:100

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

PART – A

1 a. Explain the URL formats and URL paths. **(03 Marks)**
   b. Discuss the MIME type specification. **(03 Marks)**
   c. Briefly write about HTTP, HTTP request phase and HTTP response phase. **(08 Marks)**
   d. With examples, explain the following tags:
      (i)   <pre>
      (ii)   <a>
      (iii) <img> **(06 Marks)**

2 a. List and explain the various tags that can appear within a<form>tag. **(08 Marks)**
   b. Explain any six selector forms in CSS with an example each. **(06 Marks)**
   c. Explain the Box model in CSS. Clearly mention border, margin and padding. **(06 Marks)**

3 a. Write a program in Javascript to prompt strings from input, convert them to upper case, store it in an array and finally display the array elements in ascending order. **(10 Marks)**
   b. (i)   Discuss object creation and modification in Javascript. **(05 Marks)**
      (ii) Explain the meanings of following patterns in Javascript:
            /[∧aeiou]/
            /∧pearl/
            /snow./
            /\d\.\d\d/
            /[A-Za-z]\w*/ **(05 Marks)**

4 a. Write a program in Javascript with a form which includes 2 password elements along with reset and submit buttons. Javascript function that checks the passwords is called either when submit is pressed or when second text box loses focus. The Javascript function checks if initial passwords is empty or not and also checks if initial password = second password in both of above cases alerts. The user appropriately if both passwords match. The function should return true. **(10 Marks)**
   b. (i)   Explain absolute and relative positioning in Javascript with an example program.
      (ii) Write a program in Javascript to locate the mouse cursor in case of a click anywhere in the browser display window (i.e., display X, Y coordinates of cursor). **(10 Marks)**

PART – B

5 a. What is DTD? Explain how to create elements attributes and entities in DTD. **(10 Marks)**
   b. With a neat diagram, explain the transformation process by an XSLT processor. **(05 Marks)**
   c. Explain with respect to XML schema, how do you define a schema. **(05 Marks)**

6 a. Explain the 3 types (Scalar, Arrays, Hashes) of various in perl with an example each.
   (06 Marks)

   b. Write a program in perl to read the name of an input file from command line (the input file has words in it separated by , : or ;) and produces a list of unique words in input file and displays it to the screen in ascending order along with frequency of occurrence of words (use hashes).
   (10 Marks)

   c. What is query string? Give an example.
   (04 Marks)

7 a. List and explain any 5 arithmetic functions in PHP.
   (10 Marks)

   b. Demonstrate the steps to connect MySQL to a PHP program and execute a query (clearly explain different functions like mysql_connect ( )....)
   (10 Marks)

8 Write short notes on following topics in Ruby:
   a. String methods.
   b. Simple input and output.
   c. Fundamentals of arrays.
   d. Classes.
   (20 Marks)

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