13MCA43

Fourth Semester MCA Degree Examination, Jan./Feb. 2021
Advanced Web Programming

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a.   Explain the three categories of Perl variables. Quote an example for each and explain.
                                                                                 (06 Marks)
    b.   With an example for each, explain string functions in Perl.   **(06 Marks)**
    c.   Explain the pattern matching technique in Perl. How are they useful in Perl scripts? Explain built-in array functions of Perl.   **(08 Marks)**

2   a.   Explain the Common Gateway Interface. Demonstrate the linkage between a HTML document on a browser and a CGI program on a server.   **(10 Marks)**
    b.   Write short notes on :
         (i) Query string   (ii) GET and POST methods.
         (iii) References in Perl functions   (iv) File handlers   **(10 Marks)**

3   a.   Write a Perl script to insert data into database.   **(10 Marks)**
    b.   Explain different CGI.pm methods.   **(06 Marks)**
    c.   Illustrate the need of cookies on client side. Write the syntax to create a cookie using Perl.
                                                                                 (04 Marks)

4   a.   What is a PHP processor? How does PHP script process client data? Explain.   **(06 Marks)**
    b.   Consider the following array
              $list = array(10, 20, 30, 40, 50, 60);
         (i) What will unset($list[3]); result to? and what will be the elements in the current array?
         (ii) $week = array("Mon" $\Rightarrow$ 1, "Tue" $\Rightarrow$ 2, "Wed" $\Rightarrow$ 3, "Thu" $\Rightarrow$ 4, "Fri" $\Rightarrow$ 5);
              print $days & $values separately.   **(06 Marks)**
    c.   How does PHP support cookies? How do you track a session? Explain with an example. Write a program to track the number of views for a webpage.   **(08 Marks)**

5   a.   Explain the built-in methods for arrays and lists in Ruby.   **(10 Marks)**
    b.   With suitable examples explain string functions in Ruby   **(05 Marks)**
    c.   Write the remembering and substitution pattern matching in Ruby.   **(05 Marks)**

6   a.   Explain the directory structure of Rails application.   **(10 Marks)**
    b.   Build a Rails application to accept book info namely accession number, title, authors, edition and publisher from a web page and store the info in a database and to search for an author. Display the search results with proper headings.   **(10 Marks)**

7   a.   Differentiate between Web 2.0 and traditional web. Highlight the salient features of Web 2.0. What are folksonomics?   **(06 Marks)**
    b.   What are IaaS and SaaS? Explain the need of them by quoting suitable examples. **(08 Marks)**
    c.   Differentiate between convergence and iterative development.   **(06 Marks)**

8   a.   What are Web Services? Describe SOAP and WSDL with an example for each. **(10 Marks)**
    b.   What is JSON? Explain its format.   **(10 Marks)**

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