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13MCA43

**Fourth Semester MCA Degree Examination, Dec.2019/Jan.2020**  
**Advanced Web Programming**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1 a. What are the three categories of Perl variables? Give example for each. Mention how hashes are different from arrays. (10 Marks)  
b. Describe the basics of Perl functions. Write a Perl program to find the median of two lists, one list with odd number of elements and the second list with even number of elements by using pass by reference. (10 Marks)
- 2 a. What is CGT? Explain briefly about processing of CGI. (06 Marks)  
b. Explain about cookies. Give example to demonstrate how to create, read and delete a cookie in Perl. (10 Marks)  
c. Illustrate with example CGI : : carp (04 Marks)
- 3 a. Brief about the concept of uploading the files in CGI. (06 Marks)  
b. Demonstrate with an example, how to track the users by using hidden data. (04 Marks)  
c. What is DBI? Explain with an example how do you interact with relational data bases. (10 Marks)
- 4 a. Which are the commonly used string functions in PHP? Give exan.ples. (06 Marks)  
b. Describe logical internal structure of arrays. Write a PHP program which illustrates sort, a sort and k sort. (10 Marks)  
c. Explain about pattern matching functions in Perl. (04 Marks)
- 5 a. Write four built in functions of arrays in Ruby. Explain with example hashes in Ruby. (10 Marks)  
b. Describe for-in statement in Ruby. (04 Marks)  
c. Explain about Ruby methods. Give example. (06 Marks)
- 6 a. What is Rails? Explain its MVC architecture Mention its features. (10 Marks)  
b. Explain any Rails application with data base connectivity. (10 Marks)
- 7 a. Describe about Web 2.0. List out the features and folksonomies. (10 Marks)  
b. What is Saas? Explain the key characteristics of Saas and its implementation. (10 Marks)
- 8 Write short notes on:  
a. REST  
b. SOAP  
c. WSDL  
d. JASON (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.