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**First Semester MCA Degree Examination, Dec.2013/Jan. 2014**  
**Introduction to Web Technologies**

Time: 3 hrs.

Max. Marks:100

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

- 1 a. Create XHTML employee enrolment form with following details :
  - Text box accepts name
  - Text box accepts password
  - Radio buttons to accept card type Maestro / Visa
  - Check boxes for work type [maintenance / testing]
  - Drop down list for hobbies [sports, music, reading]
  - Submit and reset buttons. (12 Marks)
- b. Define the following terms : i) Browser ii) Internet iii) Web iv) URL. (04 Marks)
- c. Explain features of : i) Web search engine ii) Application servers. (04 Marks)
- 2 a. What are the two phases of HTTP? Explain each of them in detail. (12 Marks)
- b. Explain following tags, with example : i) <span> ii) <div>. (04 Marks)
- c. Discuss the syntactic differences between HTML and XHTML. (04 Marks)
- 3 a. List the selector forms and explain class and generic selector forms, with examples. (08 Marks)
- b. Define various font properties, with example for each. (07 Marks)
- c. Define following, with properties for each : i) Padding ii) Margin. (05 Marks)
- 4 a. Define DTD? Explain how to declare elements, attributes and entities in DTD [document]. (10 Marks)
- b. Explain XSLT processing, with diagram. (05 Marks)
- c. List the two approaches of XML processing. (02 Marks)
- d. Explain the purpose of XML processors. (03 Marks)
- 5 a. Develop and demonstrate using JavaScript and XHTML which collects and verifies vehicle registration number of the following format : KA-09 AD-157. (09 Marks)
- b. Write XHTML and the DOM tree structure for below table : (07 Marks)

Morning	Evening
7	3
8	4
- c. Write advantages of JavaScript. (04 Marks)
- 6 a. Explain the Perl scalars and their operations, with examples for each. (10 Marks)
- b. Write the string functions with respective actions in Perl. (05 Marks)
- c. Write a Perl program to find value of expression  $ax^2 + bx + c$ , by accepting the values of a, b, c and x and display the result. (05 Marks)
- 7 a. Explain basics of pattern matching, transliteration and substitution operations, with examples in Perl. (10 Marks)
- b. Write a Perl program to count odd numbers in array. (05 Marks)
- c. Explain CGI with diagram. (05 Marks)
- 8 Write short notes on the following :
  - a. Web server
  - b. Cookies
  - c. Web services
  - d. Positioning of elements in HTML. (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.