CBCS SCHEME

20MCA41

Fourth Semester MCA Degree Examination, July/August 2022
Advances in Web Technologies

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1   a. Explain various scalar types and operators available in PHP.   **(10 Marks)**
    b. Explain the various looping statements in PHP. Write any PHP code to explain 'for' loop.
                                                                                          (10 Marks)

OR

2   a. Outline file handling in PHP.   **(10 Marks)**
    b. Illustrate steps to join web form with database in PHP.   **(06 Marks)**
    c. Write a short note on Cookies in PHP.   **(04 Marks)**

Module-2

3   a. Illustrate with syntax any eight built-in-methods for arrays in Ruby.   **(08 Marks)**
    b. Explain codeblocks and iterators with sample code in Ruby.   **(06 Marks)**
    c. Summarize the following string methods i) Capitalize ii) Strip iii) Chop.   **(06 Marks)**

OR

4   a. With a neat diagram, explain directory structure for Rails application.   **(10 Marks)**
    b. Illustrate the concept of classes in Ruby with an example.   **(10 Marks)**

Module-3

5   a. What is Ajax? Explain with an diagram, how it is different from traditional web
        applications.   **(10 Marks)**
    b. With a neat diagram, explain Ajax web application model.   **(10 Marks)**

OR

6   a. With an example illustrate sending data to server using methods of GET and POST for
        HTTPRequest object.   **(10 Marks)**
    b. List and explain Ajax principles.   **(06 Marks)**
    c. Differentiate between synchronous and Asynchronous requests.   **(04 Marks)**

Module-4

7   a. Explain how to handle multiple XMLHTTPRequest objects in the same page.   **(08 Marks)**
    b. Explain the pattern of predictive fetch using Ajax.   **(08 Marks)**
    c. Write a note on submission throttling.   **(04 Marks)**

OR

8   a. With example, explain pattern of periodic refresh and fall back pattern in Ajax. **(10 Marks)**
    b. Illustrate how to implement the Ajax pattern of multistage download.   **(10 Marks)**

Module-5

9   a. What is Bootstrap? Explain the Bootstrap life structure with a neat diagram and give an
        example of basic HTML template using Bootstrap.   **(10 Marks)**
    b. With a sample code explain Fluid Grid system and container layouts.   **(10 Marks)**

OR

10 a. Explain with an example, the Bootstrap Button classes for different styles of Button in
        Bootstrap CSS.   **(10 Marks)**
    b. Explain the following HTML concepts with Bootstrap CSS, i) Headings ii) Emphasis
        classes.   **(10 Marks)**

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