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Question Paper Code: U8201

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Professional Elective

Information Technology

21ITV201-FULL STACK WEB DEVELOPMENT

(Common to CSE,EEE,ECE,MECH,AGRI,BIOMEDICAL,AIDS,AIML)

(Régulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. Write a code snippet to create a link in HTML. CO2 - App
2. State the use of web server logs and list the contents of a message log. CO1 - U
3. Write a JavaScript to add two numbers. CO2 - App
4. Define Document Object Model (DOM) and how it is used in client-side programming. CO1 - U
5. How is session tracking achieved by URL rewriting? CO2 - App
6. What is WAR file? CO1 - U
7. What is the difference between “echo” and “print” in PHP? CO1 - U
8. Develop a PHP code to list all the elements in an indexed array. CO2 - App
9. Give the applications of angular JS. CO1 - U
10. Give the pros and cons of using Firebase. CO1 - U

PART – B (5 x 16= 80 Marks)

11. (a) Design a responsive webpage using the Bootstrap framework that contains a navigation bar, a hero section with a background image, and a three-column layout showcasing different services. Ensure that the layout adjusts appropriately for different screen sizes. CO2 - App (16)

Or

- (b) Develop a web page using CSS with the following requirements CO2 - App (16)
 (i) Paint the background grey (ii) Paint the sidebar yellow (iii) Set the artist h1 to be only uppercase (iv) Set the title h2 to be uppercase-first letter (v) Set a line spacing between the lines (vi) Set letter spacing between the letters in each span of type instruction.
12. (a) How can you obtain the client's IP address using JavaScript? CO2 - App (16)
 Provide the code for this along with an example output.
 Or
- (b) Design a scientific calculator using JavaScript that involves CO2 - App (16)
 designing an HTML interface for the calculator and implementing the logic for various operations (like basic arithmetic, trigonometric functions, logarithms, etc.) using JavaScript.
13. (a) (i) Write a servlet program to read the names and values of CO2 - App (16)
 parameters of the client request.
 (ii) Write a servlet program to retrieve data from the database. CO2 - App
 Or
- (b) How Java Database Connectivity (JDBC) is used to interact with CO2 - App (16)
 relational databases. Describe the steps involved in establishing a connection, executing SQL queries, and processing results. Write a servlet that performs basic CRUD (Create, Read, Update, Delete) operations using JDBC with a MySQL database. Include code examples for each operation and explain how to handle database connections and exceptions.
14. (a) Discuss in detail about XML DTD and its types with an example. CO1 - U (16)
 Or
- (b) Give an XSLT document and a source XML document explain CO1 - U (16)
 the XSLT transformation process that produces a single result XML document.
15. (a) How File handling is done in Node JS illustrate with an example. CO1 - U (16)
 Or
- (b) Explain the working principle of MVC Framework with an CO1 - U (16)
 illustration.