



B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Sixth Semester

INFORMATION TECHNOLOGY

U18ITI6203: Web Technology

COURSE OUTCOMES

- CO1:** Understand and build dynamic and interactive web sites
- CO2:** Interpret the role of XML and AJAX in web applications
- CO3:** Develop applications using PHP and MySQL
- CO4:** Develop interactive web applications using Node js and MongoDB
- CO5:** Make use Java based technologies (JSP and Servlet) to develop applications
- CO6:** Develop Rest based web services

Time: Three Hours

Maximum Marks: 100

**Answer all the Questions: -
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)**

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|---|-----|-------------------|
| 1. Write a HTML program to create a table with 2 rows and three columns. | CO1 | [K ₃] |
| 2. Write a JavaScript code to verify the given number is odd or even. | CO1 | [K ₃] |
| 3. What is XML? How XML is different from HTML? | CO2 | [K ₂] |
| 4. Summarize the advantages and disadvantages of AJAX. | CO2 | [K ₂] |
| 5. Outline the usage of super globals in PHP. | CO3 | [K ₂] |
| 6. Write the PHP code to swap two numbers without using a temporary variable. | CO3 | [K ₃] |
| 7. Sketch the life cycle methods of JSP. | CO4 | [K ₂] |
| 8. State NoSQL databases? What are the different types of NoSQL databases? | CO4 | [K ₂] |
| 9. What is use of web servers? List any two open source web servers. | CO5 | [K ₂] |
| 10. State the purpose of directives in AngularJS. | CO5 | [K ₂] |

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11. a) What is a style sheet? Explain the various types of style sheets with a suitable program. 10 CO1 [K₂]
b) Design a webpage with a textbox and a button. The user is allowed to enter a string in the text box. Write JavaScript code to check the string entered in the text box is a palindrome or not. 6 CO1 [K₃]
12. a) Explain the working of AJAX-DOM based XML with a sample program. 8 CO2 [K₂]
b) Create an XML document consisting of details about a set of movies. Apply XSLT to display the movie details in a tabular form. 8 CO2 [K₃]
13. a) Explain any four string operations supported by PHP with suitable example. 8 CO3 [K₂]
b) Consider a database table with the following structure: 8 CO3 [K₃]
Employee (Ename, Empno, Edept, Eaddress)
Write PHP code to perform insertion, deletion, modification and display operations on the Employee table.
14. a) Explain the steps involved in creating and publishing a REST based web service. 10 CO6 [K₃]
Create a web service for finding the average of N numbers.
b) What is EJB? Explain EJB architecture. 6 CO5 [K₂]
15. a) Is Node.js is single-threaded? How does it handle concurrency? Explain the Node.js process model with a neat sketch. 8 CO4 [K₂]
b) Create a MongoDB collection called 'restaurant' with necessary data. Write a MongoDB query to display all the documents in the collection restaurants. 8 CO4 [K₃]
16. a) What is a file system module? Write a Node.js file system module to read and display the content of a given file (src.txt). 8 CO4 [K₃]
b) Design Servlet program to calculate the factorial value of an integer number. The input is taken from an HTML form 8 CO5 [K₃]
