

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

Fifth Semester

CS18501 – USER INTERFACE TECHNOLOGIES*(Computer Science & Engineering)***(Regulation 2018/2018A)****TIME: 3 HOURS****MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Student will be able to understand the functionalities of World Wide Web	2
CO 2	Student will gain the skill to build the interactive web pages	3
CO 3	Student will be able to develop Client-side validation using scripting languages and Open source JavaScript libraries	3
CO 4	Student can able to identify the CURD operations and make Database Connectivity using MongoDB	4
CO 5	Student acquires knowledge to interpret the functionalities of Client-side and Server-side JS frameworks	3

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

	CO	RBT LEVEL
1. List the various internet standards.	1	1
2. Enumerate the objective of dynamic web pages.	1	1
3. Write the merits of semantic tags.	2	2
4. Distinguish between translation and animation.	2	2
5. Is Javascript event driven programming? Justify your answer.	3	2
6. State the asynchronous web communication pattern with example	3	2

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|-----|---|---|---|
| 7. | Write the equivalent terms of RDBMS in MongoDB. | 4 | 2 |
| 8. | What is the difference between insert () and insertone () in MongoDB? Write syntax of both. | 4 | 2 |
| 9. | Sketch the Node.JS file request handling scenario. | 5 | 2 |
| 10. | Outline the purpose of Node.JS used in application development. | 5 | 2 |

PART- B (5 x 14 = 70 Marks)

- | | Marks | CO | RBT
LEVEL |
|--|-------------|----------|--------------|
| 11. (a) (i) Explain the major components of computer networks. | (6) | 1 | 2 |
| (ii) Discuss WWW architecture with suitable diagram | (8) | 1 | 2 |
| (OR) | | | |
| (b) Explain the working methodology of a) SMTP b) POP c) FTP and d) HTTP response in detail. | (14) | 1 | 2 |
| 12. (a) (i) Design a page for online shopping. The web page must include media contents to explain the features of the item in the shopping site. | (10) | 2 | 3 |
| (ii) Write the simple program setitem and getitem using local storage concept. | (4) | 2 | 3 |
| (OR) | | | |
| (b) Create a website to advertise the launch of a new motor vehicle. Apply CSS features in necessary places to make the page more attractive to customers on the product. | (14) | 2 | 3 |
| 13. (a) (i) Explain the core features of Java script with examples. | (7) | 3 | 3 |
| (ii) Write a program to demonstrate the arrow function in JavaScript. Explain. | (7) | 3 | 3 |
| (OR) | | | |
| (b) Develop a HTML page to accept user name, password and date of birth from the user. Apply Javascript code to validate the data given in the page | (14) | 3 | 3 |

by the user. If the valid input is given, check the user authentication to enter into the web application.

14. (a) Illustrate the MongoDB Installation and Setup procedure in detail. Explain the Elements of MongoDB Ecosystem for MongoDB operation. **(14)** **4** **4**

(OR)

(b) Demonstrate the MongoDB CRUD operations on the following applications: a) Employee Payroll b) User comments system - online Shopping site **(14)** **4** **4**

15. (a) **(i)** Explain the Node.JS architecture and working procedure with a neat diagram. **(7)** **5** **3**

(ii) Discuss the different components of NODE.JS with example. **(7)** **5** **3**

(OR)

(b) **(i)** Create a Node.JS application to handle requests and responses to display information on the web. Use the appropriate port number to listen to the server to accept requests. **(8)** **5** **3**

(ii) Demonstrate the database connection using Node.JS **(6)** **5** **3**

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	(i) Develop the Node.JS script to Employee Database for the following operations using MongoDB : a) Collection Creation b) Insert Information	(5)	5	5
	(ii) Write the script in MongoDB to project the information in a clear format from Inventory Database to the user. The script must include Database Creation, Collection Creation and Insertion of information in the database.	(5)	4	5
