

Code: 20CS3603

III B.Tech - II Semester – Regular Examinations – JUNE 2023**MERN STACK DEVELOPMENT
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	What is Node.js? Explain the various features of Node.js and briefly describe about who uses Node.js?	L2	CO1	7 M
	b)	Enlist JavaScript Data types and Variables also define Variable Scope with an example	L1	CO1	7 M
OR					
2	a)	Describe JavaScript Object properties and methods along with User-Defined Objects with appropriate examples.	L2	CO1	7 M
	b)	Demonstrate how do you define methods for an Object in JavaScript with a simple example.	L2	CO1	7 M
UNIT-II					
3	a)	Write a code snippet which illustrates the working with Node packages.	L3	CO2	7 M

	b)	Illustrate the various steps involved in creating Node.js application with an example.	L3	CO2	7 M
OR					
4	a)	Implement package.json to define the properties of a package in Node.js with all its attributes.	L3	CO2	7 M
	b)	Illustrate the process of uninstalling a Module, updating a Module, search a Module, Create a Module in Node.js with appropriate code snippet.	L3	CO2	7 M
UNIT-III					
5	a)	Implement the steps involved in creating a Web Server using Node.js and making a request to Node.js server.	L3	CO2	7 M
	b)	Implement HTTPS Servers and Clients in Node.js with a suitable code example.	L3	CO2	7 M
OR					
6	a)	Demonstrate the implementation of Express in Node.js by using Request/Responses Objects.	L3	CO2	7 M
	b)	Explain how to configure Routes and build a program in Node.js on how to parse URL.	L3	CO2	7 M
UNIT-IV					
7	a)	Interpret in detail on how React works with JSX by using React elements and Fragments.	L3	CO3	7 M

	b)	Explain how you build a form in React state Management with an example.	L3	CO3	7 M
OR					
8	a)	Explain i) React Element as JSX (4m) ii) Webpack (3m)	L3	CO3	7 M
	b)	Demonstrate a Fetch Hook and also a Fetch Component with a suitable example.	L3	CO3	7 M
UNIT-V					
9	a)	Analyze the objective of NoSQL with an appropriate example.	L3	CO4	7 M
	b)	Illustrate the process of accessing MongoDB from the Shell Client in detail.	L3	CO4	7 M
OR					
10	a)	Explain how you add the MongoDB Driver to Node.js with a suitable code snippet.	L3	CO4	7 M
	b)	Explain the reason of why to use MongoDB and where to use MongoDB with all the advantages of MongoDB over RDBMS.	L3	CO4	7 M