

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026***Fifth Semester***Information Technology****IT3501 - FULL STACK WEB DEVELOPMENT***Regulations - 2021**Duration : 3 Hrs**Maximum : 100 Marks***PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

<i>Q.No</i>	<i>Questions</i>	<i>BTL</i>	<i>CO</i>	<i>Marks</i>
1.	Mention any two backend services used in web applications.	L1	1	2
2.	State the role of Express in web development.	L2	1	2
3.	Define a callback function in Node.js.	L1	2	2
4.	State any one method of handling data I/O in Node.js.	L3	2	2
5.	Define node in mongo DB.	L1	3	2
6.	Listing key features of MongoDB suitable for Node.js applications.	L2	3	2
7.	Recall the use of the req object in Express.	L2	4	2
8.	Differentiate Angular expressions and JavaScript expressions.	L2	4	2
9.	List the four technologies used in the MERN stack.	L1	5	2
10.	Write the syntax for defining a route in React Router.	L3	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Discuss in detail about MVC (Model-View-Controller) architecture with a neat sketch.	L2	1	16
	Or			
	b Explain the role of React in building interactive user interfaces.	L2	1	16
12.	a Examine the working of setTimeout(), setInterval(), and setImmediate() functions with examples.	L4	2	16
	Or			
	b Analyze the effectiveness of using Node.js for implementing HTTP services compared to traditional server-side technologies.	L4	2	16
13.	a A social media platform needs to store posts with comments, likes, and hashtags. Demonstrate how MongoDB's document model is more suitable than a relational model for the given scenario.	L3	3	16
	Or			
	b Illustrate the process of creating, updating, and deleting collections in MongoDB with suitable examples.	L3	3	16

14.	a	i	Illustrate with suitable example how routes are configured in Express.	L2	4	8
		ii	Summarize the role of TypeScript in Angular applications.	L2	4	8
	Or					
	b	i	List and explain the different types of data binding in Angular with examples.	L2	4	8
15.		ii	Outline the concept of request and response handling by creating an Express application that accepts form input and displays it back to the client.	L2	4	8
	a		Explain the structure of React components with examples of functional and class components.	L2	5	16
	Or					
	b		Write an example to illustrate how RESTful APIs are built using Express. for GET and POST requests.	L2	5	16