

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026****Second Semester****Department of Computer Applications****PMCT2421 - FULL STACK WEB DEVELOPMENT****Regulations – 2024****Duration : 3 Hrs****Maximum : 100 Marks****PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BTL	CO	Marks
1.	What is the structure of an HTML document?	K1	1	2
2.	List types of CSS selectors.	K1	1	2
3.	Show how packages are managed using NPM.	K2	2	2
4.	Outline the role of templating engines.	K2	2	2
5.	Make use of middleware to handle JSON data in Express.	K3	3	2
6.	Create user authentication using Node.js.	K3	3	2
7.	List the role of props in React components.	K4	4	2
8.	Identify the data flow in React applications.	K4	4	2
9.	Assess when vertical scaling is preferred over horizontal scaling.	K5	5	2
10.	Justify the use of orchestration tools like Kubernetes.	K5	5	2

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

Q.No	Questions	BLT	CO	Marks
11. a	Explain JavaScript events and their types.	K1	1	16
	Or			
b	Explain the basics of client-server communication in web applications.	K1	1	16
12. a	Describe server-side rendering using templating engines with examples.	K2	2	16
	Or			
b	Explain the lifecycle of a request-response cycle in Node.js and Express.	K2	2	16
13. a	Make use of MongoDB using Node.js to insert and retrieve data.	K3	3	16
	Or			
b	Describe middleware for secure authentication and authorization.	K3	3	16
14. a	Examine how Fetch API is used to retrieve data in React applications.	K4	4	16
	Or			
b	Explain the working of virtual DOM and its advantages.	K4	4	16
15. a	Critically assess the role of Virtual Private Cloud (VPC) in secure cloud architecture.	K5	5	16
	Or			
b	Evaluate the role of virtualization in enabling cloud services.	K5	5	16