Q. Code:455519

Reg. No.

B.E / B.TECH. DEGREE EXAMINATIONS, MAY 2023

Sixth Semester

CS18002 – ADVANCED USER INTERFACE TECHNOLOGIES

(Common to CS & IT)

(Regulation 2018 / Regulation 2018A)

TIME: 3 HOURS MAX. MARKS: 100 COURSE STATEMENT RBT OUTCOMES LEVEL **CO1** Students will be able to excel expertly about the various Client-side JS Framework, 3 Basics of ANGULAR 4.0. **CO 2** Students will be able to review the various concepts and need of TypeScript. 2 **CO3** Students will be able to know the Front-end application development and the React 2 library. **CO 4** Students will be to develop the various React features including components and 3 forms. Students will be able to accomplish the functional front-end web application using **CO 5** 4 React.

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

		CO	RBT
			LEVEL
1.	Differentiate tuple and array in typescript.	1	4
2.	Compare and contrast var and let keyword in Typescript with a simple example.	1	4
3.	Distinguish between AngularJs and Angular.	2	4
4.	Summarize the properties of a decorator.	2	2
5.	Enumerate the features of Template driven forms.	3	2
6.	Verify if NodeJS and npm is installed on your system or not.	3	3
7.	List out the lifecycle methods of components in React.	4	2
8.	Comment about the state implementation in React.	4	2
9.	Do you need to keep all component states in Redux store?	5	3
	Justify.		
10.	Mention the Key benefits of Flux.	5	2

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PART- B (5 x 14 = 70 Marks)

		Marks	CO	RBT LEVEL		
11. (a)	Discuss the steps involved in the installation and execution of Typescript.	(14)	1	5		
(OR)						
(b)	With suitable examples, explain the various types of inheritance in Typescript.	(14)	1	5		
12. (a)	Discuss the different types of data binding in Angular with suitable examples.	(14)	2	5		
	(OR)					
(b)	Explain the various types of pipes provided by Angular 4 with examples.	(14)	2	5		
13. (a)	Compare and contrast Template driven forms and Model driven forms.	(14)	3	3		
	(OR)					
(b)	Demonstrate the form validation using Angular for e-mail and password with an example.	(14)	3	3		
14. (a)	Differentiate Hybrid and Native Framework.	(14)	4	4		
	(OR)					
(b)	Describe the process of creating single page application using react router.	(14)	4	4		
15. (a)	Develop a simple react-redux application by combining action, reducer and storage unit.	(14)	5	5		
(OR)						
(b)	Elaborate the data flow process in React-Redux form.	(14)	5	5		

<u>PART- C (1 x 10 = 10 Marks)</u>

(Q.No.16 is compulsory)

		Marks	CO	RBT
				LEVEL
16.	Write a typescript program to compute the prime factors of a given number.	(10)	1	4
