



R20 Regulation

Subject code: 3E8EF

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Regular Examinations, April 2024

STACK TECHNOLOGIES (COMPUTER SCIENCE & ENGINEERING) (Professional Electives)

Maximum Marks: 70

Date: 22.04.2024 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		CO	Bloom Tx
1	What is Hibernate?	1	L1
2	What is stack in technology?	1	L1
3	How does Spring facilitate database access using JDBC?	2	L2
4	Define object-relational mapping (ORM) in the context of Spring.	2	L1
5	Explain the purpose of Spring MVC.	3	L2
6	List the features of Spring Boot.	3	L1
7	How do you create a basic component in React?	4	L2
8	How do you render a list of elements in React?	4	L2
9	What are the key features of micro services architecture?	5	L1
10	Write the concept of state management in React.js?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	Discuss the essential components required for configuring Hibernate in a Java application. [10]	1	L3
OR			
12	Describe the stages of the Persistence Life Cycle in Hibernate and discuss its importance in managing object-state transitions during database interactions. [10]	1	L2
13	Discuss the significance of Spring MVC in web application development and its key components for handling HTTP requests and responses. [10]	2	L3
OR			
14	Explain the concept of bean wiring in Spring and how it helps manage dependencies in Java applications. [10]	2	L2

15	Develop a Spring MVC application that integrates with a third-party API for data retrieval. [10]	3	L5
	OR		
16	Explain how to configure database access in a Spring Boot application? [10]	3	L2
17	Describe the different phases of the component life cycle in React and their respective methods. [10]	4	L2
	OR		
18	Discuss the process of creating a simple "Hello World" component in React. [10]	4	L3
19	Explain about front-end framework like React.js in micro services architecture? [10]	5	L2
	OR		
20	Create a React.js application that consumes data from a Spring Boot micro service and displays it in a user-friendly interface. [10]	5	L5