ST. ALOYSIUS COLLEGE(AUTONOMOUS), JABALPUR

Reaccredited 'A+ 'Grade by NAAC(CGPA:3.68/4.00)
College with Potential for Excellence by UGC
DST-FIST Supported & STAR College Scheme by DBT

Faculty of Science

Bachelor of Computer Application
B.CA. IV Semester
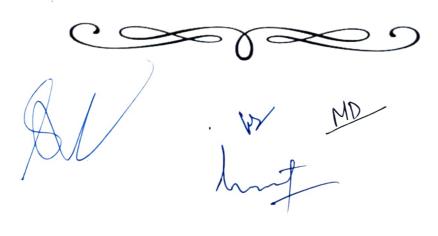**Paper-Elective II**
REACT JS

Course Outcomes

CO. No.	Course Outcomes	Cognitive Level
CO 1	Understanding JavaScript Basics and DOM Manipulation.	R, U
CO 2	Implementing JavaScript Features for User Interaction	A
CO 3	Exploring and Using React for UI Development	U, A
CO 4	Developing React Components and Managing State	A, E
CO 5	Managing Events and Dynamic Data in React	A, C

Credit and Marking Scheme

	Credits	Marks		Total Marks
		Internal	External	
Theory	3	40	60	100
Practical	1	40	60	100
Total	4	200		

Evaluation Scheme

	Marks	
	Internal	External
Theory	3 Internal Exams of 20 Marks (During the Semester) (Best 2 will be taken)	1 External Exams (At the End of Semester)
Practical	3 Internal Exams (During the Semester) (Best 2 will be taken)	1 External Exams (At the End of Semester)

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B.CA. IV Semester   **Paper-Elective II**

REACT JS
Theory

No. of Lectures (in hours per week): 2 Hrs. per week
Total No. of Lectures: 60 Hrs.   **Maximum Marks:** 60

Units	Topics	No. of Lectures
I	Introduction to JavaScript, External javascript, Javascript Variable, global variable, control statements, Array, Date, Math, popup boxes, Document Object Model, Document Objects: getElementById, GetElementsByClassName(),getElementsByName(), getElementsByTagNames(), innerHTML property, innerText property, form validations.	15
II	Introduction to React: What is React, Why React, React version history, Anatomy of react project, Running the app, Debugging first react app. Templating using JSX: Working with React. createElement, Expressions, using logical operators, specifying attributes, Specifying children, Fragments.	15
III	About Components: Significance of component architecture, Types of components, Functional, Class based, Pure, Component Composition Working with state and props: What is state and its significance, Read state and set state, Passing data to component using props, Validating props using propTypes, Supplying default values to props using default Props.	15
I V	Rendering lists: Using react key prop, Using map function to iterate on arrays to generate elements, Event handling in React: Understanding React event system, Understanding Synthetic event, Passing arguments to event handlers. Working with forms.	15

Textbooks:
- ReactJS by Example - Building Modern Web Applications with React
- React Js for Beginners A Comprehensive Beginner's Guide to ReactJS By Emma William · 2021
- HTML & CSS, the complete reference, fifth edition, Thomas A Powell.

Reference Books:
- React and React Native A Complete Hands-on Guide to Modern Web and Mobile Development with React.js By Adam Boduch, Roy Derks · 2020
- Quickstart Step-By-Step Guide to Learning React Javascript Library (React. Js, Reactjs, Learning React JS, React Javascript, React Programming) By Lionel Lopez · 2017

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B.CA. IV Semester   **Paper-Elective II**

REACT JS

Practical

No. of Lab Practical (in hours per week): 2 Hrs. per week

Suggestive List of Practical

1. Build Search filter in React
2. Creating a simple counter
3. Display a list
4. Build Accordion
5. Image Slider
6. Create a Checklist
7. Simple Login form
8. Multi-Page navigation using React Router