

Bharati Vidyapeeth's
Institute of Computer Applications and Management (BVICAM)
 A-4, Paschim Vihar, New Delhi-63

THIRD SEMESTER [MCA] Internal Examination, November 2023

Paper Code: MCA-114

Subject: Full Stack Development

Time: 2 Hours

Maximum Marks: 45

Note: Attempt THREE questions in all. Question No. 1 is compulsory, and attempt one question from each unit.

1. Answer all the following questions briefly: - 1.5 × 10 = 15
- (a) Enlist the different methods to declare variables in ES6. CO1
- (b) Distinguish between presentational component and container component. CO2
- (c) Illustrate the purpose of middleware in redux. CO3
- (d) Identify the provider of react redux. CO3
- (e) When react started it faced a lot of obstacles as other web languages were also available. Discuss those obstacles. CO1
- (f) Give the output of the following code. Name the operator used and its purpose to give this output. CO1
- ```
let arr1 = ['A', 'B', 'C']; let arr2 = ['X', 'Y', 'Z'];

let result = [...arr1, ...arr2]; console.log(result);
```
- (g) Discuss the purpose of using promise in java script CO1
- (h) List the different java script frameworks and their developers. CO1
- (i) Explain the design pattern of flux. CO3
- (j) Explain Java Script is a loosely typed language with example. CO1

**UNIT - I**

2. (a) Discuss upon the purpose of using AJAX through a suitable example. 5 CO1
- (b) Compare DOM and Virtual DOM through a real-life example. 5 CO1
- (c) Create a react component for one of the children's toys with the following elements: 5 CO1

|                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remote Control toy                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>• Features:           <ul style="list-style-type: none"> <li>○ RED in Color</li> <li>○ Big Types</li> <li>○ Moves with Remote</li> </ul> </li> </ul> |
| Rs. 1,222<br>Amazon.in<br>Free Delivery                                                                                                                                                     |

3. (a) Emphasis on the purpose Transpilling with example. 5 CO1

- (b) Discuss a way to specify and validate property types in react.js 5 CO1
- (c) Create a login form using React js 5 CO1

### UNIT - II

- 4. (a) Examine redux.js with react using a suitable example. 5 CO2
- (b) Discuss application state with message and post within it. 5 CO2
- (c) Identify and explain the purpose of using props and state management in react js. 5 CO2
- 5. (a) Determine the purpose of using component in react. Discuss Component lifecycle in detail. 6 CO2
- (b) Create a single page application for a startup organization. It should be felt to the user that it has multiple pages. The left side of the page consist of tab named 'About', "event', 'products', 'contact Us'. Home page should have page of each section and error page to handle 404 not found error. Once inside each section should display the same main menu. The content on right side should change as user navigates. 'About' will have sub menus: company (default), history, services, Location when user navigates to it. This all should be implemented by showing the components used under the library react router dom and switch case to handle. Discuss all the components used to implement this SPA. 9 CO3