II SEMESTER M.TECH. (SOFTWARE ENGINEERING)

IN-SEMESTER II EXAMINATION, MAY 2023

SUBJECT: Elective III: FULL STACK WEB DEVELOPMENT [ICT 5021]

**REVISED CREDIT SYSTEM**

Time: 1 HOUR MAX. MARKS: 15

Instructions to Candidates:

* Answer **ALL** the questions.
* Missing data may be suitably assumed.

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| 1. | Explain advantages of using single page application over multi-page application | **3M** |
| 2. | For the webpage shown in Figure 1, identify the following:   * Various react components. * Different states and properties * Identify where each state should reside   *Figure 1* | **4M** |
| 3. | Create a simple react component named “user” which will return one row of a table with two columns, name and role. | **3M** |
| 4. | With an appropriate example, differentiate between linking and embedding in MongoDb. | **2M** |
| 5. | Implement the following using MongoDB query language. The student documents inside students collection of ‘mydb’ database is shown in Fig 2.   |  |  |  | | --- | --- | --- | | **Name** | **Marks** | **Section** | | XX | 100 | A | | YY | 200 | A | | PP | 300 | B |   *Figure 1*   * Insert a new student document (ZZ, 200, B) * Find the students who have scored less than 150 marks | **3M** |
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**Q3. Sample React Component**

import React from 'react';

const HelloWorldComponent = () => {

return ( <h1>Hello World</h1> );

}

export default HelloWorldComponent;

**Q5.**

db.<collection>.insertOne({<field>:<value>})

db.<collection>.find({<field> : {$lt : <value>}})