

# SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD

## Department of Computer Science & Engineering

### Internal Assessment Test – I

Semester : IV [A & B]

Course Title & Code : Web Technology [22UPCSC405]

Course Teacher(s) : Prof. Prathap Kumar M.K

Date : 26/04/2024

Time : 12:30 to 1:30 PM

Max Marks : 20

**Note: Question 3 is compulsory. Also answer any one full question from Q1 and Q2.**

**Q1.**

**Marks/COs**

- What is a web? Explain the web architecture with a neat diagram. **5M/CO1**
- Develop an HTML web page featuring checkboxes to display various items such as apple (Rs. 200 per kg), orange (Rs. 180 per kg), and banana (Rs. 80 per kg), alongside a button. Upon clicking the button, the page is expected to prompt a confirmation window displaying the message 'Your total cost is Rs. xyz', where 'xyz' denotes the total cost of selected fruits, inclusive of a 10% sales tax. Ensure all GUI components on the web page are properly aligned using suitable HTML elements. **5M/CO1,3**

**Q2.**

- Differentiate between XML Schema Definition (XSD) and Document Type Definition (DTD) markup languages. **5M/CO1**
- Write an XML Schema definition (XSD) to validate the following XML document. **5M/CO1,3**

```
<?xml version="1.0" encoding="UTF-8"?>
<inventory>
  <product id="E0111">
    <name>Laptop</name>
    <category>Electronics</category>
    <price>89000</price>
    <stock>
      <location>Warehouse A</location>
      <quantity>10</quantity>
    </stock>
    <stock>
      <location>Warehouse B</location>
      <quantity>30</quantity>
    </stock>
  </product>
</inventory>
```

**Q3.**

- Describe in brief the Domain Name System (DNS). Explain how domain name and address resolution works if a browser requests the following URL: <https://www.india.gov.in/my-government/government-directory>. Also, construct a tree structure for the request, by labeling nodes with TLP domains involved in the address resolution of the requested URL. **5M/CO1**
- Create a web page using HTML markup to list all undergraduate (UG) courses offered by SDMCET College in a dropdown GUI component. Use JavaScript to validate the web page and display the selected courses on an alert window. **5M/CO1,3**

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