CET223 FALL 2024

## Web Technologies

Assignment No. 01 [CLO-1]

**Total Marks: 10** 

## **Instructions:**

The assignment must be completed handwritten. It is important to present your work neatly, using appropriate headings and subheadings where necessary. Ensure that each question is answered in detail, and provide explanations or examples where required.

- 1. Define the World Wide Web (WWW). How does it differ from the Internet?
- 2. Describe the basic structure of the Web. How do clients and servers interact to display a webpage?
- **3.** How does the Web enable global communication and access to information?
- **4.** Explain the relationship between a URL (Uniform Resource Locator) and a webpage.
- 5. What is client-side web development? Discuss its primary components.
- 6. Explain the role of HTML in client-side development. How does it define the structure of a webpage?
- 7. What is CSS, and how does it enhance the visual presentation of a website?
- **8.** How does JavaScript contribute to interactivity on a webpage? Provide examples of its common uses.
- 9. What are the advantages of client-side web development over server-side development?
- 10. Describe the concept of responsive web design in client-side development. Why is it important?
- 11. Define the Internet and explain its fundamental structure.
- **12.** What is the Domain Name System (DNS), and how does it work to resolve domain names into IP addresses?
- 13. What is web hosting, and why is it essential for websites to be hosted on a server?
- **14.** What are the differences between HTTP and HTTPS? Why is HTTPS preferred over HTTP for secure communication?
- **15.** Explain how a browser sends a request to a server to load a webpage. What happens behind the scenes during this process?
- **16.** Describe the role of web servers in web communication. How do web servers respond to client requests?
- 17. What is the Document Object Model (DOM), and how does it represent an HTML document?
- **18.** Explain how the DOM tree is structured. What are the relationships between different nodes in the DOM?
- 19. How does JavaScript interact with the DOM to manipulate HTML elements on a webpage?
- **20.** Describe the concept of event handling in the DOM. How does JavaScript handle events like clicks or keypresses?