

**K-1003**

Total Page No. : 4]

[Roll No. ....]

**MCS-E1**

**MCA IIIrd Semester  
Examination Dec., 2023**

**WEB TECHNOLOGY**

**Time : 2 Hours]**

**[Max. Marks : 70**

---

*Note :- This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**Long Answer Type Questions**      2×19=38

*Note :- Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.*

**K-1003**

( 1 )

P.T.O.

1. Explain the significance of HTML in web development. Discuss the key elements and structure of an HTML document, highlighting the role of tags and attributes. Provide examples to illustrate how HTML is used to create well-structured and semantically meaningful web pages.
2. What do you mean by JDBC ? Explain JDBC Architecture, JDBC drivers and JDBC object classes in detail.
3. Discuss the various methods of error handling in JavaScript. Explain the try...catch statement, the throw keyword, and how errors can be properly handled to prevent script termination. Provide examples demonstrate effective error handling practices in JavaScript.
4. Provide a detailed overview of Java Server Pages (JSP). Explain the purpose of JSP in web development. Discuss the advantages of using JSP and its role in creating dynamic and interactive web applications.

5. Discuss the strategies for error handling and exception management when working with JDBC in JSP. Explain how to catch and handle exceptions gracefully to provide meaningful error messages to users.

### **Section–B**

#### **Short Answer Type Questions**      4×8=32

**Note** :- Section ‘B’ contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. How has HTML evolved over time and what are the key versions of HTML ?
2. What is the Document Object Model (DOM) and how does it relate to markup languages ?
3. Discuss the concept of asynchronous programming in JavaScript. Explain the event loop, callbacks, Promises, and async/await syntax.
4. Explain the fundamental principles of JavaScript, including its role in web development.

5. Explain the mechanisms for error handling in JSP. Discuss the use of error pages, the `<%@ page errorPage="..." %>` directive, and the `<error-page>` configuration in the web.xml file.
6. Explain the basic structure of HTML page, with proper tags and their significance in the construction of a web page.
7. How can a servlet be made thread-safe and why is it important in a multi-threaded environment ?
8. What are the advantages of using XML as a data interchange format ?

\*\*\*\*\*