PAPER ID-310587

Roll No:

BCA
(SEM III) THEORY EXAMINATION 2025-26
WEB TECHNOLOGY

TIME: 3 HRS   M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1.   Attempt all questions in brief.   2 x 07 = 14

Q no.	Question	CO
a.	How did changes in internet usage influence web development strategies?	1
b.	Discuss the structure of an HTML document.	1
c.	Describe the CSS Box Model in detail.	2
d.	How do CSS features improve performance and user experience?	2
e.	Explain how JavaScript interacts with HTML elements to create dynamic web pages.	3
f.	Explain the servlet architecture with a neat diagram.	4
g.	Explain the concept of Dependency Injection in Spring.	5

SECTION B

2.   Attempt any three of the following: 7 x 3 = 21

a.	Describe the role of web protocols in client server communication. Compare HTTP and HTTPS in terms of security, performance, and real world usage.	1
b.	Explain the concept of CSS and its importance in separating content from presentation. Compare inline, internal, and external style sheets.	2
c.	Explain JavaScript functions in detail. How is data returned from functions and how are functions used to handle UI events?	3
d.	Describe JSP scripting elements, directives, and standard actions. How do custom tag libraries improve code reusability and readability?	4
e.	Discuss Inversion of Control and Bean scopes in Spring. Explain when to use Singleton, Prototype, Request, Session, and Application scopes.	5

SECTION C

3.   Attempt any one part of the following: 07 x 1 = 07

a.	Explain the difference between <div> and <span> elements. How do they help in structuring content and applying styles effectively?	1
b.	Design an HTML page for a college event that includes • An image banner • A table showing event schedule • A form for registration Use appropriate tags such as image, table, iframe, hyperlink, and form elements. Explain your design choices.	1

4.   Attempt any one part of the following: 07 x 1 = 07

a.	Explain positioning techniques in CSS. Compare static, relative, absolute, fixed, and sticky positioning with suitable examples.	2
b.	Create a CSS style sheet for a navigation bar that includes • Horizontal menu	2

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	• Hover effects using pseudo classes • Proper alignment using display and float properties Explain how each CSS rule affects the layout.	

5.	**Attempt any *one* part of the following:**	**07 x 1 = 07**
a.	Discuss variable declaration and scope in JavaScript. Compare var, let, and const with respect to block scope and hoisting.	3
b.	Explain the role of JavaScript in client side scripting. How does it differ from server side scripting languages?	3

6.	**Attempt any *one* part of the following:**	**07 x 1 = 07**
a.	Discuss session tracking techniques in web applications. Compare cookies and HttpSession in terms of security and storage.	4
b.	Explain JSP architecture. What are implicit objects and how do they simplify JSP development?	4

7.	**Attempt any *one* part of the following:**	**07 x 1 = 07**
a.	Describe Factory and Strategy design patterns. Explain how these patterns are implemented using Spring framework concepts.	5
b.	Explain Spring Boot architecture. Discuss configuration management, annotations, actuator, build systems, and code structure in developing enterprise applications.	5