| Roll No. | | | | | | | | | | | | |
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# PRESIDENCY UNIVERSITY

## BENGALURU

**End - Term Examinations – December 2025**

**Date:** 12-12-2025 **Time:** 01:00pm– 04:00pm

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| **School:** SOCSE | **Program:** B .Tech | |
| **Course Code:** CSE2258 | **Course Name:** Web Technologies | |
| **Semester**: V | **Max Marks**: 100 | **Weightage**: 50% |

| **CO - Levels** | **CO1** | **CO2** | **CO3** |
|---|---|---|---|
| **Marks** | **33** | **34** | **33** |

**Instructions:**

*(i) Read all questions carefully and answer accordingly.*

*(ii) Do not write anything on the question paper other than roll number.*

## Part A

**Answer ALL the Questions. Each question carries 2marks.** **10Q x 2M=20M**

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| 1. | Define web browser? Give two examples | 2 Marks | L1 | CO1 |
| 2. | Describe the HTML tag used to create a hyperlink? Give syntax | 2 Marks | L1 | CO1 |
| 3. | Describe the method and action attribute of form? | 2 Marks | L1 | CO1 |
| 4. | Differentiate between style tag and style attribute | 2 Marks | L1 | CO2 |
| 5. | Describe how do you apply the same style to multiple elements in CSS? | 2 Marks | L2 | CO2 |
| 6. | When I want to apply style to a paragraph which is indie div tag, what type of selector is used? Explain its syntax | 2 Marks | L2 | CO2 |
| 7. | Name any two mutable data types available in PHP. | 2 Marks | L1 | CO3 |
| 8. | Differentiate between local and global variables in PHP. | 2 Marks | L2 | CO3 |
| 9. | Explain how do you iterate key–value pairs in an associative array using foreach in PHP? | 2 Marks | L2 | CO3 |
| 10. | Differentiate between echo and print function | 2 Marks | L2 | CO3 |

**Part B**

**Answer the Questions.** **Total Marks 80M**

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| 11. | a. | Imagine you are creating an online event registration page for a university tech fest. The form should allow participants to enter their personal details (name, email, phone), choose their department, select the events they want to participate in, write a short note about themselves, and finally submit the form. Explain how you would design this form in HTML, mentioning all the necessary elements used in forms and their purpose. Give syntax for each | 10 Marks | L3 | CO1 |
| | b. | Differentiate between the following<br>1. Html vs Xhtml<br>2. Span vs Div tag<br>3. Frame vs iframe tag<br>4. Text vs Textarea<br>5. Submit vs reset Button | 10 Marks | L2 | CO1 |
| | | **Or** | | | |
| 12. | a. | Explain the different types of lists in HTML with detailed examples. Discuss how each type of list is used and formatted. | 10 Marks | L2 | CO1 |
| | b. | You are creating a shopping website. The client wants the following sections on the product page for a mobile phone:<br>A. A list of features of the phone (camera, battery, screen size, etc.) – the order doesn't matter.<br>B. A list of steps to place an order online – the sequence must be followed.<br>C. A list of technical terms with explanations (e.g., RAM – Random Access Memory, OLED – Organic Light-Emitting Diode).<br>To achieve this, which concept can be used? Demonstrate each concept in detail with a simple example and syntax. | 10 Marks | L3 | CO1 |

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| 13. | a. | Discuss the fundamental role of CSS (Cascading Style Sheets) in web development. Include its purpose, advantages, and how it interacts with HTML. Provide examples to illustrate your points. | 10 Marks | L2 | CO2 |
| | b. | An online Book Fair 2025 website needs a stylish page to showcase featured books and an action button for visitors to register.<br>Design a web page and style it using CSS where:<br>1. Contextual Selector Requirement | 10 Marks | L3 | CO2 |

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| | | • Text that appears only inside the "Featured Books" section should have a distinct font style and color compared to similar text in other sections.<br>2. Pseudo-class Selector Requirement<br>• Any clickable links on the page should change appearance when a visitor hovers over them or clicks them. | | | |
| | | **Or** | | | |
| 14. | a. | Discuss the various types of CSS selectors. Explain their characteristics, use cases, and provide examples for each type | 10 Marks | L2 | CO2 |
| | b. | Explain the following CSS selectors with syntax and examples:<br>(a) Pseudo-classes<br>(b) Pseudo-elements<br>(c) Contextual (combinator) selector | 10 Marks | L2 | CO2 |

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| 15. | a. | Write a PHP program to manage student records using MySQL database. Your program should perform the following tasks:<br>i) Connect to the MySQL server and select a database named college_db.<br>ii) Add new student details (name, register number, and department) to a table named students.<br>iii) Update the department of a specific student using their register number.<br>iv) Display all student records in a html page. | 20 Marks | L3 | CO3 |
| | | **Or** | | | |
| 16. | a. | Write a PHP program to read 5 student marks from an html page, store them in an array, and perform the following tasks:<br>i) Compute the total, average, highest mark, and lowest mark using appropriate loops (for / foreach).<br>ii) Store all 5 marks in a MySQL database table named student_marks.<br>iii) Retrieve the stored marks from the database and display them along with the computed results (total, average, highest, and lowest) on a web page. | 20 Marks | L3 | CO3 |

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| 17. | a. | Explain image mapping in HTML. Discuss its purpose, how to create image maps using <map> and <area> elements, and provide examples illustrating different types of image maps | 7 Marks | L2 | CO1 |
| | b. | Explain XML DTD and XML Schema with syntax. | 8 Marks | L2 | CO2 |

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| | c. | Write a PHP program that displays the factorial of a number using for loop and while loop. | 5 Marks | L2 | CO3 |
| | | **Or** | | | |
| 18. | a. | Apply your understanding to differentiate between inline and block elements. Explain with a suitable example | 7 Marks | L3 | CO1 |
| | b. | Explain XML Namespaces with examples. Discuss the need for XSL in XML documents and how it differs from CSS in HTML. | 8 Marks | L2 | CO2 |
| | c. | Discuss different types of PHP arrays with examples. | 5 Marks | L2 | CO3 |