

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BTECH
BRANCH: CS**

**SEMESTER :VII
SESSION : MO/2025**

SUBJECT: CS435 FRONTEND DESIGN

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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Q.1(a)	An image of size 1000px by 780px is to be placed in a web page. The final image needs to be of size 64px by 48px. However, the image needs to maintain its aspect ratio. Write an inline CSS for the same, assuming the name of the file to be displayed is "image.png", which is available in the current directory.	[2]	1	CO	BL	K1
Q.1(b)	What are three different techniques by which we can introduce styles into a web page. Demonstrate with syntax.	[3]	1			K1
Q.2(a)	Give three examples of pseudo-selectors in CSS.	[2]	1			K1
Q.2(b)	Write the CSS required to create a DIV containing three DIVs. On large screens (>768 pixels) the three divs need to be of equal size. But for smaller screens (<768px) we need to show only the first two divs.	[3]	1			K2
Q.3(a)	Is it possible to insert a script block just after the opening HTML tag in a web page? If it is possible to do so, should we recommend this?	[2]	2			K1
Q.3(b)	Differentiate with proper example sthe difference between thse use of the keywords var, let and const in JavaScript. What is the effect of using const on an object?	[3]	2			K1
Q.4(a)	What is an arrow (alternatively known as lambda) function in JavaScript?	[2]	2			K1
Q.4(b)	Assume the existence of an array in JavaScript containing strings. Write a function expression to receive the array as a parameter to find the length of the longest even-length string in the array. You are not allowed to use for loops.	[3]	2			K2
Q.5(a)	Differentiate between a truthy and a falsy in JavaScript/	[2]	2			K1
Q.5(b)	What is a callback in JavaScript? Write a function in JavaScript that accepts a year and a callback. Use the callback to determine whether the year passed to the function is a leap year only if the year lies in the 20 th century. If the year does not lie in the 20 th century you can return null.	[3]	2			K2

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