Assignment 01

Aim:

Devlop responsive web design HTML 5, containing a form. style the pages using CSS, use of tag selector, class selector and id selectors. use inline, internal and external CSS, apply Bootstrap front end framework.

Objectives:

① to understand HTML tags
② to learn the styling of web pages using CSS
③ to learn Bootstrap front end framework.

theory:

① Define Responsive web Design (RWD), what is its primary goal?

ans.

Responsive web Design (RWD) is a web development approach that ensures websites adjust their layout, images and elements automatically based on the device screen size, orientation and platform. it allows the same website to provide an optimal

viewing experience across desktops, table and mobile devices.

primary goal:
the main goal of RWD is to improve usability and accessibil by eliminating the need for sprate mobile versions, ensuring consistent user experience on all devices.

② Explain the role of the <meta name = "viewport"...> tag. Why is this tag essential for RWD?
ans.

the <meta name = "viewport" conte = "width = device - width, initial - scale = 1.0"> tag tells the browser how to control the page's dimensions and scaling. it ensures that the web page fits the screen width of the device rather than default to a desktop layout.

importance:
without this tag, mobile brow display the site in a zoomed - out desktop view, breaking responsiveness.
hence, it is essential for making pages adapt properly to small screens.

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3) How does Bootstrap assist in creating a responsive layout? Discuss the concept of grid system and how it adapts to different screen sizes.

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Bootstrap provides a responsive framework with predefined CSS classes and components. its grid system divides the page into 12 equal columns, allowing developers to place elements in rows and columns that automatically adjust to screen sizes.

i) On large screens, multiple columns can appear side by side

ii) On medium or small screens, the grid stacks the column vertically.

thus, the grid system adapt content dynamically, making layouts flexible and mobile-friendly without extra coding effort.

4) Differentiate between Tag, class and ID selectors.

ans.—

> Tag selector :-
targets all the elements of a specific HTML tag.
eg. `p { color: blue; }` → changes all <p> text to blue.

ii) class selector –
targets elements with a specific
class attribute, reusable across
multiple elements.
eg. .highlight
{ background : yellow; } →
applies yellow background to all
elements with class = "highlight".

iii) ID selector –
targets a single unique element
with an id attribute.
eg. #header { font -size : 24px; }
→ applies only to element with
id : "header".

⑤ Describe the three main ways
to apply CSS to an HTML doc?
ans.

i) inline CSS –
applied directly to an element
using the style attribute.
eg. <p style = "color : red ;">
Hello </p>

ii) Internal CSS –
written inside a <style> tag
in the <head> section of the
HTML file.
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p {color: green; }
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iii) **external CSS** —
stored in a separate .css file and linked to the HTML using `<link>`.
eg. `<link rel = "stylesheet" href = "style.css">`

conclusion:

the experiment showed how to build a responsive web design using HTML5, CSS and Bootstrap. Different CSS selectors and styling methods were applied, and the Bootstrap grid system made the layout adapt to various screen sizes.

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