1.a.The main reasons for developing the new HTML5 standard were:

- Advancements in Technology: The web landscape was evolving rapidly with the emergence of new technologies, devices, and platforms. HTML needed to adapt to support these advancements.
- Rich Multimedia Support: HTML5 aimed to provide native support for multimedia elements such as audio and video without the need for third-party plugins like Flash.
- Mobile Compatibility: With the rise of mobile devices, HTML5 was designed to be more mobile-friendly, enabling responsive design and better performance on various screen sizes.
- Improved Semantics: HTML5 introduced new semantic elements that helped developers better structure and organise web content, making it more accessible and SEO-friendly.
- Enhanced Interactivity: The standardisation of APIs in HTML5 allowed for more interactive web applications, including features like drag-and-drop, geolocation, and offline storage.
- Cross-Browser Compatibility: HTML5 aimed to reduce browser incompatibilities and inconsistencies, providing a more consistent experience for users across different browsers and devices.

b.The main difference between the W3C HTML5 specification and the WHATWG HTML Living Standard lies in their development processes and update cycles.
W3C HTML5: The W3C (World Wide Web Consortium) HTML5 specification is a stable version of the HTML standard that was finalised in 2014. It follows a traditional standards development process, where updates and revisions are made through a formal process of drafts, reviews, and approvals. The W3C HTML5 specification is considered a snapshot of the HTML standard at a specific point in time.
WHATWG HTML Living Standard: The WHATWG (Web Hypertext Application Technology Working Group) HTML Living Standard is a continuously updated version of the HTML standard that is maintained by a community of web developers and browser vendors. It is designed to reflect the ongoing evolution of web technologies and is continuously updated to incorporate new features, improvements, and best practices. The HTML Living Standard is considered a living document that is constantly updated to reflect the latest developments in web technology.

c.This code includes the basic structure of an HTML document with the necessary tags: `<!DOCTYPE html>` declaration, `<html>`, `<head>`, `<title>`, and `<body>`. The `<title>` tag sets the title of the page displayed in the browser tab, and the `<h1>` tag is used to display the heading "Hello, World!" in the body of the page.

d.Semantic markup refers to using HTML elements that convey meaning about the content they enclose. For example, using <header>, <nav>, <article>, <section>, and <footer> tags in HTML5 provides semantic information about the structure of a webpage, making it easier for search engines and assistive technologies to understand the content.
Presentational markup, on the other hand, focuses on styling and layout, often using HTML elements like <font>, <b>, <i>, and <centre> to control the appearance of content.
Presentational markup mixes content with styling, which can make it harder to maintain and

update a website, as changes to the design may require modifications to the underlying HTML structure.

Presentational markup is considered deprecated now because it violates the separation of concerns principle, where content (HTML), presentation (CSS), and behaviour (JavaScript) should be kept separate. Using presentational markup can lead to less accessible, less maintainable, and less flexible websites. Instead, modern web development practices emphasise using semantic markup for content structure and CSS for styling, allowing for cleaner, more maintainable code and better accessibility for all users.

e. To check browser support for a particular HTML tag or attribute, you can refer to online resources such as the Mozilla Developer Network (MDN) or Can I Use.

f.The HTML standard officially supports various audio and video formats for embedding multimedia content in web pages. The commonly supported audio formats include MP3, WAV, and OGG, while the video formats include MP4, WebM, and OGG.