**Q.1 <!DOCTYPE html> is it a tag of html? If not, what is it and why do we use it?**

**ANS:**

<!DOCTYPE html> is not an HTML tag,we have seen that there is a declaration before the HTML tag. HTML <!DOCTYPE> tag is used to inform the browser about the version of HTML used in the document.It is also called the DTD(Document Type Declaration).

we use <!DOCTYPE html>,which is indicated in HTML 5.

**Q.2 Explain Semantic tags in html? And why do we need it?**

**ANS:** In HTML, semantic tags are tags that describe the meaning or purpose of the content they contain. Semantic tags are used to add meaning to the content of a webpage, making it easier for search engines and other systems to understand the content of a webpage.On the other hand, <form>, <table>, and <article> etc. are semantic elements because they clearly define their content.HTML5 semantic elements are supported by all major browsers.

Examples of semantic elements: <form>, <table>, and <article> - Clearly defines its content.

The are several advantages of using semantics tags in HTML:

- The semantic HTML tags help the search engines and other user devices to determine the importance and context of web pages.
- The pages made with semantic elements are much easier to read.
- It has greater accessibility. It offers a better user experience.
- Improved readability and maintainability.
- . Enhanced accessibility.
- Better SEO.
- Simplified stylin.

**Q.3 Differentiate between HTML Tags and Elements?**

Ans-

Elements enclosed the contents between the tags.They consist of some kind of structure or expression. It generally consists of a start tag, content and an end tag. When we write any content between tags, it is called an element.

Example:-

   <br> this is element </br>

Tags: Tags are the starting and ending parts of an HTML element. They begin with < symbol and end with > symbol. Whatever written inside < and > are called tags.Example: <br> </br>

**Que-6   What are some of the advantages of HTML5 over its previous versions?**

**Ans-**

**1.Mutuality**

Due to usability purposes, the websites made by developers are highly interactive nowadays and for this developers need to include fluid animations, stream video, play music, and Social Network sites like Facebook and Twitter into the websites. Till now they have only the option to integrate it with the help of Flash or Silverlight, Flex, or javascript-like tools. But these consume so much time to develop and even the complexity of web applications also increased. But now with the help of HTML5, it is possible to embed video and audio, high-quality drawings, and charts. animation and many other types of rich content without using any plugins or third-party programs as the functionality is now built into the browser.

## 2. Improved Code

HTML 5 will enable web designers to use cleaner, neater code; we can remove most div tags and replace them with semantic HTML 5 elements.

## 3. Improved Semantics

Now it is easy to see which parts of the page are headers, nav, footers, aside, etc as the tags are specific for these all and most importantly know what their meaning and purpose is in the whole format. By using HTML5 elements we can increase the semantic value of the web page as the codes are very standardized.

## 4. Elegant forms

HTML5 enables designers to use fancier forms. Even it makes form validation native to HTML, User interface enhancements, and reduced need for JavaScript (only needed in browsers that don't support form types). There will be different types of text inputs, searches, and different fields for different purposes.

## 5. Consistency

As websites adopt the new HTML5 elements we will see greater consistency in terms of the HTML used to code a web page on one site compared to another. This will make it easier for designers and developers to immediately understand how a web page is structured.

## 6. Improved Accessibility

Different technologies can elaborate on the features with the help of HTML5, as they can Immediately make a more detailed understanding of the structure of a page by taking a look at the HTML5 elements it has.

**7. Fulfill the need of the Web application**

Many new features and standards have emerged as part of HTML 5. Once you detect the available features in today's browsers, you can take advantage of those features in your application. The main focus of HTML5 is to make easier applications with easy front-ends, drag and drop tools, discussion boards, wikis, and other useful elements.

**8. Offline Application cache**

All browsers have some kind of caching mechanism so that after some time of browsing, you open up your laptop and click the Back button in the browser hoping to see the previous page that was opened. However, as you are not connected to the internet and the browser didn't cache the page properly, you are unable to view that page. You then click the Forward button thinking that at least that page will load, but it doesn't. You need to reconnect to the internet to be able to view the pages. HTML 5, thankfully, provides a smarter solution. While building the site, the developer can specify the files that the browser should cache. So, even if you refresh the page when you are offline, the page will still load correctly. This sort of caching has several advantages like offline browsing, files load much faster and reduced load on the server.

**9. Client-side database**

While cookies have been used to track unique user data for years, they have serious disadvantages. The largest flaw is that all of your cookie data is added to every HTTP request header. This can end up having a measurable impact on response time. So a best practice is to reduce cookie size. With HTML5 we can do better by using sessionStorage and localStorage(two different storage methods in HTML5) in place of cookies. It is not a permanent database but enables you to store structured data, temporarily.

**10. Geolocation support**

With the help of Geolocation, anyone can find out where you are in the world and share that information with people. There are different ways to figure out where you are — your IP address, your wireless network connection, which cell tower your phone is talking to, or dedicated GPS hardware that calculates latitude and longitude from information sent by satellites in the sky. But The new HTML5 geolocation APIs make the location, whether generated via GPS or other methods, directly available to any HTML5-compatible browser-based application.

**Que-8 What is the difference between figure tag and img tag?**
**Ans-**

**Figure Tag:**
- The figure tag is used to semantically organize the content of images, videos, audios or even charts or tables, block of codes in the HTML document.
- <figure> tag is a container tag.
- This tag is an inline element.
- The figure tag contains default alignment and styling.
- It makes it easy for the machine to understand the code. Easy to get on search engines.

*Syntax:*
*<figure>*
  *<img src="url">*
  *<figcaption>content</figcaption>*
*</figure>*

**Img Tag:**

- HTML <img> tag is used to add images or to set the background in the webpage/website.
- The images are linked to web pages by using the <img> tag which holds space for the image.
- <img> tag is a void tag.

- It is an inline element but when we specify width and height it becomes a block element.
- It is difficult for machines to understand.
- The image tag does not contain any default alignment and styling.

**Syntax:**

*<img src="url" alt="some_text">*

**Que-9 What's the difference between html tag and attribute and give examples of some global attributes?**

**Ans-**

**Html Tag:**

- Way of denoting an Html element in the program.
- It can be a starting or ending tag.

**Example:**

*<p>This is paragraph tag </p>*

*<h1>This is heading tag </h1>*

## Attribute:

- Way of defining the characteristics of an Html element.
- It consists of names and values.

**Example:**

*<p id="para">This is paragraph</p>*

Here, 'id' is an attribute of the paragraph tag.

**Some global attributes are:**

- id
- class
- style
- title