**New features in html 5**  
improved support for embedded graphics, audio, video content via   
<canvas>  
<audio>,  
<video> tags  
  
**canvas**  
used to draw graphics via java script  
canvas element has no drawing abilities.we must use a script to draw a graphics  
colors,styles and shadows  
fillStyle-sets or returns the color,gradient or pattern used to fill the drawing  
<canvas id="mycanvas" width="300" height="150" style="border:1px solid #d3d3d3d"></canvas>  
  
var c =document.getElementById("mycanvas");  
var ctx=c.getContext("2d");  
ctx.fillStyle="#FF0000";  
ctx.fillRect(20,20,150,100);  
  
**video**

used to embed video in web browser   
<video width="320" height="240" controls>  
<source src="movie.mp4" type="video/mp4">  
<source src="movie.ogg" type="video/ogg">  
</video>  
**support type:**  
MP4  
WebM  
Ogg  
  
Audio=>used to embed audio in web browser   
<audio controls>  
<source src="horse.ogg" type="audio/ogg">  
<source src="horse.mp3" type="audio/mpeg">  
</audio>  
**support type:**  
MP3  
OGG  
WAV  
  
**extensions to the java script API such as**   
Geo location,   
drag and drop,  
storage and   
caching  
  
**Geo location:**  
The HTML Geolocation API is used to locate a user's position.  
The HTML Geolocation API is used to get the geographical position of a user.  
Since this can compromise privacy, the position is not available unless the user approves it.  
  
**several new semantic tags added to structural logic of modern web application.**   
<header>,  
<footer>,  
<main>,  
<section>,  
<nav>,  
<article>,  
<aside>

**What are the migrated tags from HTML4 to HTML5?**

**List of the migrated tags from HTML4 to HTML5 are given below:**

**Typical HTML4**         **Typical HTML5**

<div id = “footer”>                <footer>  
<div id = “header”>              <header>  
<div id = “menu”>                <nav>  
<div id = “post”>                   <article>  
<div id = “content”>            <section>

**new form controls,such as**   
<calendar>,  
<date>,  
<url>,  
<time>,  
<email>,  
<search>  
  
**what is the difference between div and span?**  
div gives the output display:block  
span gives the output display:inline  
  
**block level elements**  
<div>  
<h1>-<h6>  
<p>  
<form>  
<header>  
<footer>  
<section >  
Inline elements   
<span>  
<a>  
<img>  
  
**<!DOCTYPE>**  
It is an instruction to the web browser about what version of HTML the page is written in.  
Don’t have an end tag   
Not case sensitive   
The doctype declaration must be the very first thing in HTML5 document   
  
  
**What is a Manifest file?**  
a simple text file that tells the browser what to cache and what not to cache.  
  
1) CACHE MANIFEST - Files listed here are cached after they are downloaded for the first time.  
2) NETWORK - Files listed here require a connection to the server, and are never cached.  
3) FALLBACK - Files listed here specify fallback pages if a page is inaccessible.  
  
**Which JavaScript objects are not accessible to web worker?**  
1. The window object  
2. The document object  
3. The parent object  
  
**What is a Web Worker?**  
1. A web worker is a JavaScript which runs in the background. It exists in external files.  
2. does not affect the performance of the page.  
3. Web workers are usually used for CPU intensive tasks.  
  
**What is the concept of Application Cache in HTML5? What are its advantages?**  
without internet we can access  
1. Offline browsing  
2. Speed   
3. Reduced server load  
  
**Differentiate between localStorage and sessionStorage and cookie objects.**  
**localStorage object:**  
stores the data without an expiry date   
data will not be deleted when the browser window is closed  
Data storage 5MB  
**sessionStorage object:**   
stores the data only for one session.  
data is deleted when the browser window closes  
Data is never transferred to the server.  
Storage limit is larger than a cookie (at least 5MB).  
Cookie  
Stores data that has to be sent back to the server with subsequent requests. Its expiration varies based on the type and the expiration duration can be set from either server-side or client-side (normally from server-side).  
Cookies are primarily for server-side reading (can also be read on client-side).  
localStorage and sessionStorage can only be read on client-side.  
Size must be less than 4KB.

**Q #32) What is the difference between SVG and Canvas elements?**

**Answer:**

| **SVG** | **Canvas elements** |
| --- | --- |
| It is Object Model-based. | It is pixel based. |
| Is suitable for using large rendering areas. | Is suitable for using small rendering areas. |
| SVG provides any support for event handlers . | Canvas does not provide any recourse for event handlers. |
| Modification is allowed through script and CSS. | Modification is allowed through script only. |
| SVG has Better scalability | Canvas has poor scalability. |
| SVG is Vector based (composed of shapes). | Canvas is Raster based (composed of a pixel). |
| SVG is not suitable for Games graphics. | Canvas is suitable for games graphics. |
| SVG does not depend on resolution. | Canvas is completely dependent on resolution. |
| SVG is capable for API animation. | Canvas has no any API for animation. |
| SVG is suitable for printing with high quality and any resolution. | Canvas is not suitable for printing high quality and high resolution. |

**Q #35) Explain Meta tags.**

**Answer:** Meta tags are used to provide useful information to our web pages.

**Some of the tags include:**

* **Title:** Provides a title to the web page.
* **Style:**Inserts some styles and CSS details to the web page.
* **Link:** Defines the relationship between one page to another page and an external source.

Some Useful Abbreviations

* **XML:**Extensible Markup Language
* **W3C:**World Wide Web Consortium
* **SQL:**Structured Query Language
* **JPEG:**Joint Photographic Expert Group
* **IP:**Internet Protocol
* **HTTP:**Hypertext Transfer Protocol
* **href:**Hypertext Reference
* **FTP:**File Transfer Protocol
* **API:**Application Programming Interface
* **IDE:**Integrated Development Environment
* **WEFT:**Web Embedding Fonts Tool
* **DOM:**Document Object Model
* **Url:**Uniform Resource Locator