

## Solution



**PES University, Bengaluru**  
(Established under Kamataka Act 16 of 2013)

**UE17MC405**

**November 2017: IN SEMESTER ASSESSMENT (ISA) MCA. I SEMESTER**

**TEST – 1**

**UE17MC405-Introduction to Web Technology**

Time: 1½ Hrs

Answer All Questions

Max Marks: 40

1.	a)	Explain the task of DNS with a neat diagram.	5												
<div>➤ Task: 2, Example: 1, Diagram: 2 Mark</div> <p><b>Domain Name System:</b> The Domain Name System (DNS) is a hierarchical naming system for computers, services, or any resource connected to the Internet or a private network. It associates various information with domain names assigned to each of the participants. Most importantly, it translates domain names meaningful to humans into the numerical (binary) identifiers associated with networking equipment for the purpose of locating and addressing these devices worldwide.</p> <p>Domain Name System is that it serves as the "phone no." for the Internet by translating human-friendly computer host names into IP addresses. For example, <a href="http://www.example.com">www.example.com</a> translates to 192.32.0.10</p> <div><pre>graph LR     CS[Client System] -- Domain Name --&gt; I1((Internet))     I1 -- Domain Name --&gt; NS[Name Server]     NS -- IP --&gt; I2((Internet))     I2 -- IP --&gt; WS[Web Server]</pre></div>															
	b)	Briefly explain HTTP request header format.	5												
<div>➤ General format: 1, Methods: 2, Header format: 2 Mark</div> <p><b>The Request Phase:</b> The general form of an HTTP request is as follows:</p> <div><div>1. HTTP method    Domain part of the URL HTTP version</div><div>2. Header fields</div><div>3. Blank line</div><div>4. Message body</div></div> <p>The HTTP Request Methods</p> <table><thead><tr><th><u>METHOD</u></th><th><u>DESCRIPTION</u></th></tr></thead><tbody><tr><td>GET</td><td>returns the contents of the specified document</td></tr><tr><td>HEAD</td><td>returns the header info<sup>n</sup> for the specified document</td></tr><tr><td>POST</td><td>Executes the specified doc<sup>mnt</sup>, using the enclosed data</td></tr><tr><td>PUT</td><td>Replaces the specified document with the enclosed data</td></tr><tr><td>DELETE</td><td>Deletes the specified document</td></tr></tbody></table>				<u>METHOD</u>	<u>DESCRIPTION</u>	GET	returns the contents of the specified document	HEAD	returns the header info <sup>n</sup> for the specified document	POST	Executes the specified doc <sup>mnt</sup> , using the enclosed data	PUT	Replaces the specified document with the enclosed data	DELETE	Deletes the specified document
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There are four categories of header fields: 1. General: for general information, such as the date 2. Request: Included in request headers 3. Response: For response headers 4. Entity: Used in both request and response headers  Request line, such as GET /images/logo.gif HTTP/1.1, which requests a resource called /images/logo.gif from server. Headers, such as Accept-Language: en														
2.	a) Create a webpage to display your favourite movie review report with poster by a critic in an online newspaper. Use atleast four HTML5 semantic elements.	5												
<div>➤ Proper use of semantic element: 1 Mark each, HTML5 syntax: 1 Mark</div> <div>Semantic elements</div> <table><tr><td>&lt;article&gt;</td><td>&lt;aside&gt;</td><td>&lt;details&gt;</td><td>&lt;figcaption&gt;</td></tr><tr><td>&lt;figure&gt;</td><td>&lt;footer&gt;</td><td>&lt;header&gt;</td><td>&lt;main&gt;</td></tr><tr><td>&lt;mark&gt;</td><td>&lt;nav&gt;</td><td>&lt;section&gt;</td><td>&lt;summary&gt;</td></tr></table> <pre>&lt;!DOCTYPE html&gt;  &lt;html lang="en"&gt;  &lt;head&gt; &lt;title&gt;Movie Blog&lt;/title&gt; &lt;meta charset="utf-8"&gt; &lt;/head&gt;  &lt;body&gt;&lt;header&gt; &lt;h1&gt; Last Updated: Wednesday, September 9, 2016 - 1:00PM&lt;/h1&gt; &lt;/header&gt;&lt;nav&gt; &lt;a href="/html/"&gt;Movie&gt;   &lt;a href="/html/"&gt;Political&lt;/a&gt;   &lt;a href="/html/"&gt;Sports&lt;/a&gt;   &lt;a href="/html/"&gt;General&lt;/a&gt; &lt;/nav&gt;  &lt;article&gt; &lt;h3&gt;&lt;i&gt;Story&lt;/i&gt;  Akira Sharma (Sonakshi Sinha) is your average Jane from Jodhpur. Early in life she sees an atrocitiy committed on a neighbour and learns to defend herself. And, a spitfire is born.&lt;/h3&gt;  &lt;section&gt; &lt;h3&gt;Akira Movie Review&lt;/h3&gt; &lt;main&gt; &lt;p&gt;Review:  Our screen ki Akira is Khan, Kumar and Kapoor rolled into one. She punches and defends better than most khiladis. Her progressive, school-teacher father, Atul Kulkarni had her enrolled in karate classes instead of dance classes that girls her age frequented. But Akira learns that a Durga avatar cannot help you fight a regressive society and corrupt administration. So instead of being given a medal of honour for trying to save someone early in life, she is sent to a remand home. Not only does she lose three precious years of her life; she also loses her doting father.  &lt;/p&gt;&lt;/main&gt; &lt;figure&gt;&lt;img src="akira.jpeg" height="250px" width="200px" alt="movie image"/&gt;&lt;/figure&gt; &lt;/section&gt;  &lt;details&gt; &lt;h4&gt;Cast: Sonakshi Sinha, Konkona Sen Sharma, Amit Sadh, Anurag Kashyap&lt;/h4&gt; &lt;h4&gt;Direction: AR Murugadoss&lt;/h4&gt; &lt;h4&gt;Genre: Action&lt;/h4&gt;  &lt;h4&gt;Duration: 2 hours 18 minutes.&lt;/h4&gt; &lt;h4&gt;Rating&lt;/h4&gt;  &lt;h3&gt;CRITIC'S RATING: 3.5/5 &lt;/h3&gt; &lt;h3&gt;From 2.5 to 3.5, based on popular feedback&lt;/h3&gt;  &lt;summary&gt;&lt;b&gt;Quick info about movie and Ratings&lt;/b&gt;&lt;/summary&gt; &lt;/details&gt;&lt;footer&gt;&lt;p&gt;&amp;copy; TOI, Bangalore. All rights reserved.&lt;/p&gt;&lt;/footer&gt;&lt;/article&gt;&lt;/body&gt;&lt;/html&gt;</pre>			<article>	<aside>	<details>	<figcaption>	<figure>	<footer>	<header>	<main>	<mark>	<nav>	<section>	<summary>
<article>	<aside>	<details>	<figcaption>											
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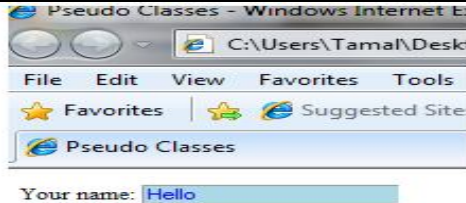
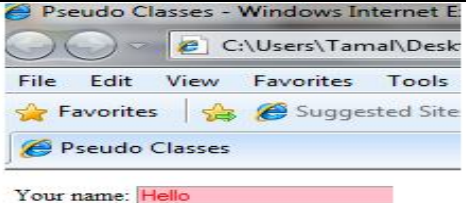

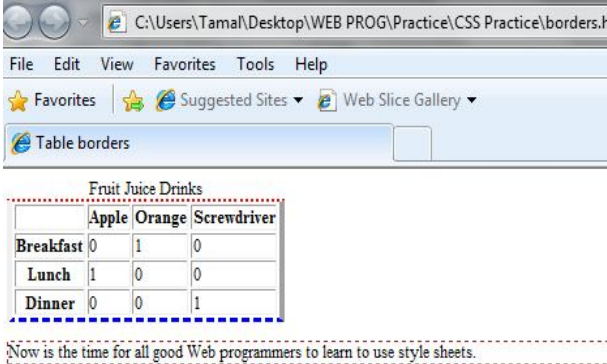
### Solution

	<b>b)</b> Write a short note for the following: <b>i. &lt;details&gt; ii. &lt;datalist&gt;</b>	<b>2.5*2</b>
	<p>➤ <b>Explanation: 1 mark, Example (Bold portion): 1.5 Mark</b></p> <p><b>&lt;details&gt;</b>: Defines additional details that the user can view or hide. This element shouldn't be used in footnotes. This element is used as the parent of <b>&lt;summary&gt;</b> element.</p> <pre> &lt;!DOCTYPE html&gt; &lt;html&gt;   &lt;head&gt;     &lt;meta charset="UTF-8"&gt;     &lt;title&gt;Title name will go here&lt;/title&gt;   &lt;/head&gt;   &lt;body&gt;     &lt;details&gt;       &lt;summary&gt;This is the default content.&lt;/summary&gt;       &lt;p&gt;This is the main content, which will be not shown.&lt;/p&gt;     &lt;/details&gt;   &lt;/body&gt; &lt;/html&gt; </pre> <p><b>&lt;datalist&gt;</b> tag specifies a list of pre-defined options for an <b>&lt;input&gt;</b> element. It is used to provide an "autocomplete" feature on <b>&lt;input&gt;</b> elements. Users will see a drop-down list of pre-defined options as they input data.</p> <pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;body&gt; &lt;form action="demo_form.asp" method="get"&gt;   &lt;input list="browsers" name="browser"&gt;   &lt;datalist id="browsers"&gt;     &lt;option value="Internet Explorer"&gt;     &lt;option value="Firefox"&gt;     &lt;option value="Chrome"&gt;     &lt;option value="Opera"&gt;     &lt;option value="Safari"&gt;   &lt;/datalist&gt;   &lt;input type="submit"&gt; &lt;/form&gt; &lt;/body&gt; &lt;/html&gt; </pre>	
<b>3.</b>	<b>a)</b> Describe different level of CSS stylesheets with syntax and examples.	<b>4</b>
	<p>➤ <b>Syntax: 1, Each style: 1 Mark</b></p> <p>CSS stands for Cascading Style Sheet use to design HTML document</p> <p><b>syntax:</b> Style = “<i>property_1:value_1; property_2:value_2; property_n:value_n;</i>”</p> <p>Style sheet can be defined in three different levels. Lower level style can override higher-level styles. Three level of styles in order from lower to higher level are</p> <ul style="list-style-type: none"> <li>❖ Inline</li> <li>❖ Document level</li> <li>❖ External</li> </ul> <p><b>Inline style:</b> Applied to the content of the single element.</p> <pre> &lt;p style="color:sienna;margin-left:20px"&gt;   This is a paragraph.&lt;/p&gt; </pre>	

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	<p><b>Document level style:</b> Apply on whole body of a document.</p> <pre>&lt;head&gt;&lt;styletype="text/css"&gt; hr{color:gray;} p{margin-left:20px;} body{ background-image:url("images/back40.gif");} &lt;/style&gt;&lt;/head&gt;</pre> <p><b>External style:</b> Applies to the bodies of any number of document..</p> <pre>&lt;head&gt;&lt;link    rel="stylesheet"    type="text/css"    href="mystyle.css"    /&gt; &lt;/head&gt;</pre>	
b)	<b>Create an external stylesheet to style the content of first three chapters for your web programming textbook.</b>	<b>3</b>
	<p>➤ <b>Each style: 1 Mark</b></p> <p>Chapter.css</p> <pre>body {     background-color="yellow"; } h1 {     color="red";     font-family="verdana"; } ol {list-style-type: upper-roman;} ol ol {list-style-type: decimal;}</pre>	
c)	<b>Describe the use of Pseudo Classes with a snippet.</b>	<b>3</b>
	<p><b>Pseudo Classes</b></p> <ul style="list-style-type: none"> <li>Pseudo classes are styles that apply when something happens rather than because the target element simply exists <ul style="list-style-type: none"> <li>Names begin with colons (:</li> <li>hover classes apply when the mouse cursor is over the element</li> <li>focus classes apply when an element has focus</li> </ul> </li> </ul> <p>Example:</p> <pre>&lt;head&gt; &lt;title&gt; Pseudo Classes &lt;/title&gt; &lt;style type = "text/css"&gt;     input: hover {background: pink; color: red;}     input: focus {background: lightblue; color: blue;} &lt;/style&gt; &lt;/head&gt; &lt;body&gt; &lt;form action = ""&gt;     &lt;p&gt;         Your name:         &lt;input type = "text" /&gt;     &lt;/p&gt; &lt;/form&gt; &lt;/body&gt;</pre>	

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4.	a)	<b>Display a snippet for usage of float property using HTML5 elements. Designate appropriate area in web page with font properties for the content.</b>	5
		<p>➤ <b>Float property 2 Mark, alignment: 1 Mark, Font Property: 2 Mark</b></p> <p><b>Style.css</b></p> <pre>img { float: right; height: 300px; width: 200px; } article.a1 { margin: 20px; padding: 30px; background-color: yellow; color: blue; } section.s1 { font-size: 18pt; font-family: Arial; font-style: italic; color: green; }</pre>	
	b)	<b>Explain five box-model declaration with respect to CSS using selector element.</b>	5
		<p>• <b>Each property: 1 Mark</b></p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <ul style="list-style-type: none"> <li>• <b>padding:</b> gap between content</li> <li>• <b>margin:</b> set margin for all sides</li> </ul> <p><b>Example:</b> &lt;head&gt; &lt;title&gt; Table borders &lt;/title&gt; &lt;style type = "text/css"&gt; table { border-top-width: medium; border-bottom-width: thick; border-top-color: red; border-bottom-color: blue; border-top-style: dotted; border-bottom-style: dashed; } p { border-style: dashed; border-width: thin; border-color: brown; } &lt;/style&gt;</p> </div> <div style="flex: 1;"> <ul style="list-style-type: none"> <li>• <b>borders</b> – every element has a border-style property Controls whether the element has a border and if so, the style of the border</li> <li>• <b>border-style</b> values: none, dotted, dashed, and double</li> <li>• <b>border-width</b> – thin, medium (default), thick, or a length value in pixels. Border width can be specified for any of the four borders (e.g., border-top-width)</li> <li>• <b>border-color</b> – any color. Border color can be specified for any of the four borders (e.g., border-top-color)</li> </ul> </div> </div> <div style="text-align: right; margin-top: 20px;">  </div>	

## **Solution**