



MUTHAYAMMAL ENGINEERING COLLEGE

(An Autonomous Institution)

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Rasipuram - 637 408, Namakkal Dist., Tamil Nadu.



MUST KNOW CONCEPTS

MKC

MCA

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Course Code & Course Name : 21CAC02 & Web Technologies

Year/Sem/Sec : I / II / -

S.No.	Term	Notation (Symbol)	Concept / Definition / Meaning / Units / Equation / Expression	Units
Unit-I : Introduction to WWW				
1.	Web technologies	--	Web technologies are the various tools and techniques that are utilised in the process of communication between different types of devices over the internet.	I
2.	Internet	--	It is two or more networks that can communicate with each other(composed of hundreds of thousands of interconnected networks).	I
3.	Syntax	--	It refers to the structure or format of the data, meaning the order in which they are presented.	I
4.	Standards	--	Standards are essential in creating and maintaining an open and competitive market for equipment manufactures and in guaranteeing national and international interoperability of data and communications technology and processes.	I
5.	Internet standard	--	It is a thoroughly tested specification that is useful to and adhered by those who work with the Internet.	I
6.	World Wide Web	--	It is a way of exchanging information between computers on the Internet.	I

7.	Web browser	--	It displays a web document and enables users to access web documents.	
8.	Web Server	--	The servers looks for the requested information, retrieves it and send it to the browser or sends an error message if the file is not found.	I
9.	Uniform Resource Identifier (URI)	--	It is used to uniquely identify resources on the web and UNICODE makes it possible to built web pages that can be read and write in human languages.	I
10.	Uniform Resource Locator (URL)	--	It is a standard way of specifying any kind of information on the internet.	I
11.	Resource Description Framework (RDF)	--	Framework helps in defining core representation of data for web.	I
12.	FTP(File transfer protocol)	--	FTP is a standard internet protocol provided by TCP/IP used for transmitting the files from one host to another.	I
13.	Control connection	--	It is made between the control processes.	
14.	FTP client	--	It is a program that implements a file transfer protocol which allows you to transfer files between two hosts on the internet.	I
15.	HTTP (Hyper Text Transfer Protocol)	--	It is a protocol used to access the data on the World Wide Web (www).	I
16.	HTTP client	--	It is a program that establishes a connection to a server to send one or more HTTP request messages.	I
17.	HTTP server	--	It is a program that accepts connections to serve HTTP requests by sending an HTTP response messages.	I
18.	HTTP Request	--	HTTP Requests are messages which are sent by the client or user to initiate an action on the server.	I
19.	HTTP Response	--	The response is used to provide the client with the resource it requested.	I

20.	Web page	--	A web page can contain huge information including text, graphics, audio, video and hyper links. These hyper links are the link to other web pages.	I
21.	Website	--	Collection of linked web pages on a web server is known as website.	I
22.	Static web pages	--	User can only read the information but can't do any modification or interact with the information.	I
23.	Dynamic web page	--	Dynamic web page shows different information at different point of time.	I
24.	Client-side scripting	--	It refers to the programs that are executed on client-side.	I
25.	Sever-side scripting	--	It acts as an interface for the client and also limit the user access the resources on web server.	I
Unit-II : Basic Concepts of Networks & Web				
26.	TCP(Transmission Control Protocol)	--	It is a transport layer protocol that facilitates the transmission of packets from source to destination.	II
27.	Source port	--	It defines the port of the application, which is sending the data.	II
28.	Destination port	--	It defines the port of the application on the receiving side.	II
29.	UDP(User Datagram Protocol)	--	It is a connectionless protocol which means that no connection establishes prior to communication.	II
30.	Checksum	--	It checks whether the information is accurate or not as there is the possibility that the information can be corrupted while transmission.	II
31.	OSI(Open System Interconnection)	--	It is a reference model that describes how information from software application in one computer moves through a physical medium to the software application in another computer.	II
32.	Physical layer	--	It is the lowest layer of the OSI model. It establishes, maintains and deactivates the physical connection.	II

33.	Data link layer	--	It provides a reliable and efficient communication between two or more devices.	II
34.	Network Layer	--	It is a layer 3 that manages device addressing, tracks the location of devices on the network.	II
35.	Transport Layer	--	It ensures that messages are transmitted in the order in which they are sent and there is no duplication of data.	II
36.	Session Layer	--	It is used to establish, maintain and synchronizes the interaction between communicating devices.	II
37.	Presentation Layer	--	It is mainly concerned with the syntax and semantics of the information exchanged between the two systems.	II
38.	Application Layer	--	It serves as a window for users and application processes to access network service.	II
39.	TCP/IP(Transmission Control Protocol/Internet Protocol)	--	It is a hierarchical protocol made up of interactive modules, and each of them provides specific functionality.	II
40.	Internet Layer	--	The main responsibility of the internet layer is to send the packets from any network, and they arrive at the destination irrespective of the route they take.	II
41.	ARP(Address Resolution Protocol)	--	It is a network layer protocol which is used to find the physical address from the IP address.	II
42.	ICMP (Internet Control Message Protocol)	--	It is a mechanism used by the hosts or routers to send notifications regarding datagram problems back to the sender.	II
43.	MIME(Multipurpose Internet Mail Extensions)	--	It allows the users to exchange various types of digital content such as pictures, audio, video, and various types of documents and files in the e-mail.	II
44.	CGI (Common Gateway Interface)	--	It is a technology that enables a web browser to submit forms and connect to programs over a web server.	II

45.	TELNET(Terminal Network)	--	A program that allows a user to log on to a remote computer.	II
46.	Local login	--	When a user logs into a local computer, then it is known as Local login.	II
47.	Remote login	--	When the user wants to access an application program on a remote computer, then the user must perform remote login.	II
48.	Network Virtual Terminal	--	It is an interface that defines how data and commands are sent across the network.	II
49.	PERL	--	It is a programming language developed for script manipulation. But now it is used for web development, GUI development, system administration and many more.	II
50.	SGML(Standard Generalized Markup Language)	--	It is a system for defining markup languages.	II
Unit-III : User Interface Design				
51.	HTML(Hyper Text Markup Language)	--	It is used for creating web pages and web applications.	III
52.	Hyper Text	--	A text has a link within it, is a hypertext.	III
53.	Markup language	--	It is a computer language that is used to apply layout and formatting conventions to a text document.	III
54.	<html >	--	It informs the browser that it is an HTML document.	III
55.	<head>	--	It should be the first element inside the <html> element, which contains the metadata(information about the document).	III
56.	<title>	--	It is used to add title of that HTML page which appears at the top of the browser window.	III
57.	<body>	--	Describes the body content of the page that is visible to the end user.	III
58.	HTML tags	--	Defines how web browser will format and display the content.	III
59.	Attribute	--	It provides extra information about the element, and it is applied within the start tag.	III

60.	Elements	--	It is an individual component of an HTML file.	III
61.	href attribute	--	This attribute gives the link address which is specified in that link.	III
62.	src attribute	--	It is source for the image which is required to display on browser.	III
63.	HTML <p> tag	--	It is used to define a paragraph in a webpage.	III
64.	HTML tag	--	It is used for line break and it can be used with paragraph elements.	III
65.	HTML <hr> tag	--	It tag is used to apply a horizontal line between two statements or two paragraphs.	III
66.	HTML< img> tag	--	It is used to display image on the web page.	III
67.	HTML< table> tag	--	HTML table tag is used to display data in tabular form.	III
68.	Cell padding	--	It specifies the space between the cell content and its borders.	III
69.	HTML Lists	--	Used to specify lists of information.	III
70.	HTML <frameset> tag	--	It is used to contain the group of frames which can be controlled and styled as a unit.	III
71.	CSS (Cascading Style Sheets)	--	It is a style sheet language which is used to describe the look and formatting of a document written in markup language.	III
72.	CSS selectors	--	Used to select the content you want to style.	III
73.	Inline CSS	--	It is used to apply CSS on a single line or element.	III
74.	Internal CSS	--	It is used to apply CSS on a single document or page.	III
75.	External CSS	--	It is used to apply CSS on multiple pages or all pages.	III

Unit-IV : Introduction to Javascript

76.	JavaScript	--	It is used to create client-side dynamic pages. It is a light-weight object-oriented programming language which is used by several websites for scripting the web pages.	IV
77.	Data types	--	JavaScript provides different data types to hold different types of values.	IV
78.	Local variable	--	It is declared inside block or function.	IV

79.	Global variable	--	It is accessible from any function.	IV
80.	Operators	--	JavaScript operators are symbols that are used to perform operations on operands.	IV
81.	Arithmetic operators	--	They are used to perform arithmetic operations on the operands.	IV
82.	Comparison operators	--	It compares the two operands.	IV
83.	bitwise operators	--	It perform bitwise operations on operands.	IV
84.	delete	--	Delete Operator deletes a property from the object.	IV
85.	Instanceof	--	Checks if the object is an instance of given type.	IV
86.	Typeof	--	Checks the type of object.	IV
87.	Expression	--	An expression is any valid unit of code that resolves to a value.	IV
88.	If...else Statement	--	It evaluates the content whether condition is true or false.	IV
89.	If...else if statement	--	It evaluates the content only if expression is true from several expressions.	IV
90.	Switch statement	--	It is used to execute one code from multiple expressions.	IV
91.	For loop	--	It iterates the elements for the fixed number of times.	IV
92.	While loop	--	It iterates the elements for the infinite number of times.	IV
93.	Do while loop	--	It iterates the elements for the infinite number of times but code is executed at least once whether condition is true or false.	IV
94.	For in loop	--	It is used to iterate the properties of an object.	IV
95.	Functions	--	Functions are used to perform operations.	IV
96.	Object	--	It is an entity having state and behavior (properties and method).	IV
97.	document.getElementById()	--	This method returns the element of specified id.	IV
98.	document.getElementsByName()	--	This method returns all the element of specified name.	IV

99.	document.getElementsByTagName()	--	This method returns all the element of specified tag name.	IV
100.	Form Validation	--	It is important to validate the form submitted by the user because it can have inappropriate values.	IV
Unit-V : AJAX & PHP				
101.	AJAX (Asynchronous JavaScript and XML)	--	It is a group of inter-related technologies like Javascript, DOM, XML, HTML/XHTML, CSS, XMLHttpRequest etc., allows you to send and receive data asynchronously without reloading the web page.	V
102.	HTML/XHTML and CSS	--	These technologies are used for displaying content and style.	V
103.	DOM (Document Object Model)	--	It is used for dynamic display and interaction with data.	V
104.	XML or JSON	--	For carrying data to and from server.	V
105.	XMLHttpRequest	--	For asynchronous communication between client and server.	V
106.	onReadyStateChange property	--	It is called whenever readystate attribute changes.	V
107.	setRequestHeader(header,value)	--	It adds request headers.	V
108.	PHP (Hypertext Preprocessor)	--	PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side.	V
109.	Echo	--	If you want to use more than one parameter, it is required to use parenthesis to print the string, multi-line strings, escaping characters, variable, array, etc.	V
110.	Print	--	It can be used with or without parentheses to print the string, multi-line strings, escaping characters, variable, array, etc.	V
111.	PHP Variable Scope	--	The scope of a variable is the portion of the program within which it is defined and can be accessed.	V
112.	\$var	--	It is a normal variable with the name var that stores any value like string, integer, float, etc.	V

113.	\$\$var	--	It is a reference variable that stores the value of the \$variable inside it.	V
114.	PHP constants	--	PHP constants are name or identifier that can't be changed during the execution of the script except for magic constants, which are not really constants.	V
115.	Magic constants	--	Magic constants are the predefined constants in PHP which get changed on the basis of their use.	V
116.	String	--	It is a non-numeric data type which holds letters or any alphabets, numbers, and even special characters.	V
117.	Array	--	It is a compound data type that can store multiple values of same data type in a single variable.	V
118.	Array operators	--	These operators are used to compare the values of arrays.	V
119.	PHP comments	--	PHP comments can be used to describe any line of code so that other developer can understand the code easily.	V
120.	Nested if	--	The nested if statement contains if block inside another if block.	V
121.	Foreach loop	--	It is used to traverse the array elements.	V
122.	Call By Value	--	In case of PHP call by value, actual value is not modified if it is modified inside the function.	V
123.	Call By Reference	--	In case of PHP call by reference, actual value is modified if it is modified inside the function.	V
124.	Get request	--	The data passed through get request is visible on the URL browser so it is not secured and can send limited amount of data through get request.	V
125.	Post request	--	The data passed through post request is not visible on the URL browser so it is secured and can send large amount of data through post request.	V

Placement Questions

126.	Protocol	--	It is a precise set of rules defining how components communicate, the format of addresses, how data is split into packets.
127.	HTTP Status Codes	--	It provides the information about the HTTP Response from the server.
128.	Web Client	--	It is software that accesses a web server by sending an HTTP request message and processing the resulting HTTP response.
129.	Web Server	--	It is software that accepts HTTP requests from web clients and returns an appropriate resource in the HTTP response.
130.	URN (Uniform Resource Name)	--	It is a method for referencing an object without declaring the full path to the object.
131.	Port	--	It is a logical channel to an application running on a host.
132.	Search engine	--	It is a program or web page that enables you to search an Internet site for a specific keywords or words.
133.	Style sheets	--	Style sheets are collections of style information that are applied to plain text.
134.	Server side scripting	--	It is executed at Server Side the required html program is sent to the client.
135.	Client side scripting	--	It is processed and executed in the client side itself.
136.	Embedded style sheets	--	A style sheet that is included in the content of a style element is known as an embedded style sheet.
137.	Web Services	--	Software systems that are designed to be accessed using web protocols and technologies that are intended to be used by other software applications.
138.	Cascading	--	It refers to a certain set of rules that browsers use, in cascading order, to determine how to use the style information.

139.	URL encoding	--	It involves replacing all unsafe and nonprintable characters with a percent sign (%) followed by two hexadecimal digits corresponding to the character's ASCII value.
140.	Active Server Pages (ASP)	--	Server-side scripting technology that can be used to create dynamic and interactive web applications.
141.	API(Application Program Interface)	--	A set of routines, protocols, and tools for building software applications.
142.	Java Server Pages (JSP)	--	Simple technology used to generate dynamic HTML on the server side.
143.	Metadata	--	It includes the indexing and organization required to retrieve library material such as book by author, title, or subject.
144.	HTML formatting	--	It is a process of format the text for a better look and feel.
145.	Semantic HTML	--	It is the use of HTML markup to reinforce the semantics or meaning of the content.
146.	Image map	--	It facilitates to link many different web pages using a single image.
147.	PHP parser	--	It is software that converts source code into the code that computer can understand.
148.	Persistent cookie	--	It is permanently stored in a cookie file on the browser's computer.
149.	Session	--	It is a logical object enabling us to preserve temporary data across multiple PHP pages.
150.	Associative array	--	An array with strings as index and stores element values in association with key values.

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