

Core Paper VI :Semester – VI

CC-6 Internet Technologies and HTML5

BLOCK – I

Unit-1 :: Introduction to computer network, data communication,, components of data communication, data transmission modes

Unit-2: Data communication measurement, network types- LAN, MAN, WAN, wireless LAN, internet, intranet, extranet

Unit-3: Unit-4: Transmission Media: Introduction, Guided Media: Twisted pair, Coaxial cable, Optical fiber, RJ45, RJ11, RJ12, CAT5, UTP, HDMI, OTG Connectivity

BLOCK-II

Unit-4: LAN Technologies -Ethernet, fast Ethernet, gIga-bit ethernet, Virtual LAN, **OSI Layers: Overview of OSI Layers**, Functions and rules of protocol suit in physical_layer, data link layer

Unit-5 : **OSI Layers:** Functions and rules of protocol suit in network layer, transport_layer

Unit-6 : **OSI Layers:** Functions and rules of protocol suit in session layer, presentation layer and Application layer

BLOCK-III

Unit-7: Html History, What is Html?, Browsers pitfalls, HTML Elements HTML Attributes ,HTML Headings, HTML Paragraphs, HTML Formatting

Unit-8 : HTML Fonts , HTML Styles, HTML Links, HTML Images, HTML Tables, HTML Lists

Unit-9 : HTML Forms• HTML Iframe, HTML Layout, HTML Doctypes, HTML Head, HTML Meta, HTML Scripts

BLOCK-IV

Unit-10: HTML Media, HTML Audio, HTML Object, HTML Video, HTML YouTube, HTML Media Tags

Unit-11: CSS3 : The Power of CSS , Doing More with Less , A First Example o Challenges , Next Up Introducing CSS3, o What is CSS3?, The History of CSS, HTML5 Selectors and Pseudo Classes, Attribute Selectors , The Target Pseudo-Class ,UI Element States, Pseudo-Classes , Negation Pseudo-Class , Structural Pseudo-Classes , Fonts and Text Effects, Fonts on the Web o Font Services , The @font-face Rule o Text Shadow , Word Wrapping Colours, Gradients, Background Images, and Masks, Colour o The Opacity Property , Backgrounds , background-origin, and background-size Borders and Box Effects, Image Borders , Rounded Corners , Box Shadow Transitions, Transforms, and Animations, Transitions and Transforms, transitions

Unit-12 : CSS3 – Layout : Columns and Flexible Box, Flexible Box Model , Vendor Prefixes, What Are Vendor Prefixes? ,Maybe They Aren't So Bad , Strategies Embedding Media, Video Formats ,Styling Video Accessibility Features, Web Accessibility ,The CSS3 Speech Module, Media Queries, Targeting Widths and Devices with CSS3 Media Queries, Responsive Images and the viewport Metatag. Implementing CSS3 in the “Real World” Stuff That Aren't (Strictly) CSS, but Sure Is Useful , jQuery ,

HTML5, Modernizr, Preprocessors , Frameworks and Grid Systems, Going Forward/Additional Resources, What’s next?, Online Resources, Get Involved

Practical :

Networking exercises in a trial lab, where effects of different connectors, topologies in practical could be demonstrated.

Before moving to JavaScript practicals, students must get an idea about fundamental programming using Scratch (<https://scratch.mit.edu>). Students should be encouraged to learn Scratch on their own and work on assignments available online such as

<https://sites.google.com/site/christopherscfahs/scratch-programming/scratch-assignments> or <http://scratched.gse.harvard.edu/resources/uw-catapult-project>.

Alternatively, students may use Alice (<http://www.alice.org/index.php>) and learn basic programming. A lot of online assignments and spoken tutorials on YouTube would be helpful.

Practical exercises based on concepts listed in theory using HTML.

1. Create HTML document with following formatting – Bold, Italics, Underline, Colors, Headings, Title, Font and Font Width, Background, Paragraph, Line Brakes, Horizontal Line, Blinking text as well as marquee text.
2. Create HTML document with Ordered and Unordered lists, Inserting Images, Internal and External linking
3. Create HTML document with Table:

			Some image here	

4. Create Form with Input Type, Select and Text Area in HTML.
5. Create an HTML containing Roll No., student’s name and Grades in a tabular form.
6. Create an HTML document (having two frames) which will appear as follows:

About	This frame would show the contents according to the link clicked by the user on the left frame
Department 1	
Department 2	
Department 3	

7. Create an HTML document containing horizontal frames as

follows:

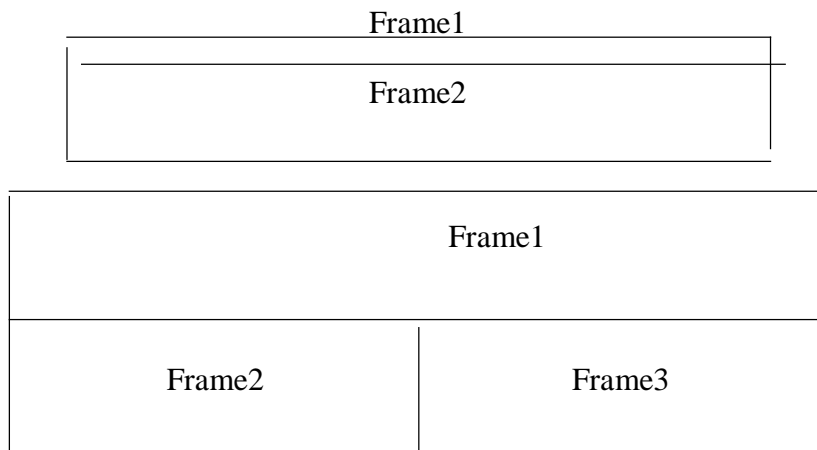
8.

Department Names (could be along with Logos)
--

Contents according to the Link clicked

8. Create a website of 6 – 7 pages with different effects as mentioned in above problems.

9. Create HTML documents (having multiple frames) in the following three formats:



10. Create a form using HTML which has the following types of controls:

- I. Text Box
- II. Option/radio buttons
- III. Check boxes
- IV. Reset and Submit buttons

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List of Practicals using Scratch : (self-learning by students)

3. Join the Scratch community on scratch.mit.edu. Explore featured projects and modify any one of them.
4. Create a game using SCRATCH similar to that of Beach Baby Volleyball. The game MUST meet the following objectives.
 - Have at least 3 sprites. All of which move, bounce, fall, etc. 10 pts.
 - Edit at least one of the sprites in some way to make it your own. 10 pts.
 - Make some or all sprites move with the use of certain keys. 15 pts.
 - Create or use a given background on your game. 10 pts.
 - Incorporate sound into your game. 10 pts.
 - Use a counter or score keeper in your game. 15 pts.
 - Must include a forever loop, show, hide, and “when I receive.” 30 pts.

Network Technologies Pracice purpose- HTML Scripting

1. Write HTML script to demonstrate tags-doctype, html, head, title, body,P,h1 to h6
2. Write HTML script to demonstrate text formatting tags- styles, b, i, strong, small , em ,mark, del, ins, sub,sup
3. Write HTML script to demonstrate quotations and comments tages- !-, q, black quote
4. Write HTML script to demonstrate RGB , HSL RGBA &HSLA colours, values of colours,
5. Write HTML script to demonstrate Cascading style sheets –inline css, internal css, external css, css fonts, css border, css padding, css margin, id attribute, class attribute
6. Write HTML script to demonstrate hyper links, local links, using href tag along with target attribute and its values, image links, book marks, external paths
7. Write HTML script to demonstrate image tag with src, alt,width,height,styles,map tag, area tag with attributes, background image,, picture tags
8. Write HTML script to demonstrate Tables using tags table,td,th, tr,types of borders border spaces,, cell padding,left align headings,cells span may rows and columns, styles
9. Write HTML script to demonstrate lsits using tags ul,ol,li,dt,dl,dd, styles of lists, types of lists
10. Write HTML script to demonstrate HTM Blocks using tags div, span,classes with syles
11. HTML Frames using tags Frameset, Frame with attributes.
12. HTML Forms using tags form, input (all inpu types), action, target, method, name attributes, and fieldset tag.

Discipline Specific Elective- 4 : Semester –VI

DSE-4 Web Designing with PHP and MySQL

BLOCK – I

Unit-1:Introducing PHP – Introducing PHP, first PHP script,PHP Language Basics,Decisions and Loops

Unit-2: Arrays- one dimensional arrays, two dimensional array, reading,initializing, printing arrays,Functions-Functions – What is a Function? Why Functions are useful? Calling Functions, Working with Variable Functions, Writing your own Functions, Working with References, Writing Recursive Functions

Unit-3:Objects – Introduction OOP Concepts, Creating Classes and Objects in PHP, Creating and using Properties, Working with Methods, Object Overloading with `_get()`, `_set()` and `_call()`, Using Inheritance to Extend Power of Objects, Constructors and Destructors, Automatically Loading Class Files,

BLOCK-II

Unit-4:Handling HTML Forms with PHP - How HTML Forms Work, Capturing Form Data with PHP, Dealing with Multi-Value Fields,Generating Web Forms with PHP, Storing PHP Variables in Forms,Creating File Upload Forms, Redirecting after a Form Submission

Unit-5:Preserving State With Query Strings, Cookies, and Sessions - Saving State with Query Strings, Working with Cookies, Using PHP Sessions to Store Data

Unit-6:Working with Files and Directories - Understanding Files and Directories,Getting Information on Files, Opening and Closing Files, Reading and Writing to Files

BLOCK-III

Unit-7:Writing to Files, Copying, Renaming, and Deleting Files, Working with Directories, Building a Text Editor

Unit-8:Introducing Databases and SQL - Deciding How to Store Data, Understanding Relational Databases, Setting Up MySQL, A Quick Play with MySQL, Connecting MySQL from PHP

Unit-9 : Retrieving Data from MySQL with PHP - Setting Up the Book Club Database, Retrieving Data with SELECT, Creating a Member Record Viewer,

BLOCK-IV

Unit-10 :Manipulating MySQL Data with PHP– inserting, updating, deleting records, Building a Member Registration Application, Creating a Members' Area, Creating a Member Manager Application

Unit-11: , Making Your Job Easier with PEAR - Installing PEAR Packages,Using a PEAR Package,Creating HTML Tables with the HTMLTable Package, Web Forms the Easy Way with HTML_QuickForm

Unit-12:PHP and the Outside World - Working with Dates and Times, Working with HTTP, Getting Information from the Web Server Sending Email

Practicals

- 1 a) Write a PHP script to find whether the given number is a prime or not.
- b) Write a PHP script to demonstrate the use of break, continue statements using nested loops.
- 2) Write a PHP script to display the Fibonacci sequence with HTML page.
- 3) Write a PHP script to create a chess board.
- 4 a) Write a PHP script using built-in string function like strstr(), strpos(), substr_count(), etc... b) Write a PHP script to transform a string to uppercase, lowercase letters, make a string's first character uppercase.
- 5 a) Write a PHP script that inserts a new item in an array in any position.
- b) Write a PHP function to check whether all array values are strings or not.
- 6 a) Write a PHP script to count number of elements in an array and display a range of array elements.
- b) Write a PHP script to sort a multi-dimensional array set by a specific key.
- 7 a) Write a PHP script using a function to display the entered string in reverse.
- b) Write a PHP script using function for sorting words in a block of text by length.
- 8 a) Write a PHP script for creating the Fibonacci sequence with recursive function.
- b) Write a PHP script using pass by value and pass by reference mechanisms in passing arguments to functions.
- 9 a) Write a PHP script to demonstrate the defining and using object properties.
- b) Write a PHP script to demonstrate the inheritance.
- 10 a) Write a PHP script to demonstrate the object overloading with _get(), _set(), and _call(). b) Write a PHP script to demonstrate the overloading property accesses with _get() and _set().
- 11 a) Write a PHP script to demonstrate the method overloading and method overriding mechanisms.
- b) Write a PHP script to demonstrate the use of final classes and final methods.
- 12 a) Write a PHP script to demonstrate the use interfaces.
- b) Write a PHP script using constructors and destructors.
- 13 Write a PHP application to handling HTML forms with PHP script.
- 14 a) Write a PHP script to create a file, write data into file and display the file's data.
- b) Write a PHP script to check and change file permissions, copying, renaming and deleting files.