CP372: INTERNET TECHNOLOGIES
CREDITS = 5 (L=3, T=0, P=2)

Course Objective:

To learn the networking concepts and Web Designing using HTML, DHTML, CSS, Client side scripts and Server side scripts.

Teaching and Assessment Scheme:

Teaching Scheme			Credits	Assessment Scheme				Total Marks
				Theory		Practical		
L	T	P	C	ESE	CE	ESE	CE	
3	0	2	5	70	30	30	20	150

Course Contents:

Unit No.	Topics	Teaching Hours
1	**INTRODUCTION:** Components, Direction of Data flow, networks, Components and Categories, types of Connections, Topologies, Protocols and Standards, ISO / OSI model, Transmission Media, Coaxial Cable , Fiber Optics , Line Coding , Modems , RS232 Interfacing sequences**.**	08
2.	**NETWORKS BASICS:** Error , detection and correction , Parity , LRC , CRC , Network Layer , Internetworks , Packet Switching and Datagram approach , IP addressing methods , Sub,netting , Routing , Distance Vector Routing , Link State Routing , Routers.	07
3.	**NETWORKING PROTOCOLS:** Functions of transport layer , Multiplexing , De,multiplexing , Sockets , User Datagram Protocol (UDP) , Transmission Control Protocol (TCP) , Congestion Control , Quality of services (QOS) , Integrated Services , Domain Name Space (DNS) , SMTP , FTP , HTTP , WWW , Security , Cryptography**.**	10
4	**Introduction to Web Design:** HTML and XTML basics, LIST , unordered list , nested and ordered list , Basic HTML Tables , Intermediate HTML table and Formatting , basic HTML Forms and Formatting ,More Complex HTML Forms , Frameset Element ,	10

Nested Frameset. Style Sheets and Graphics: Introduction to Style sheets , Formatting Text by Using Style Sheets , Formatting Paragraphs by Using Style Sheets (web Browser architecture)

Graphics: Selecting a Graphics Format , Preparing Graphics for Web Use , Inserting Graphics , Arranging Elements on the Page , Controlling Image Size and Padding ,Hyper linking from Graphics , Utilizing Thumbnail Graphics , Including Alternate Text for Graphics. Dynamic Web Page design.

| 5 | **Javascript :** | 05 |

Introduction to Client side scripting, need for javascript, How to develop Javascript, simple Javascript, variables, functions, conditions, loops and repetition. Javascript arrays, javascript objects and user defined objects, HTML DOM, Browser Object Model, event handling in javascript. Form validation using javascript regular expression. DHTML: Creating Dynamic HTML using javascript and CSS.

| 6 | **PHP:** | 05 |

Introduction and basic syntax of PHP, decision and looping with examples, PHP and HTML, Arrays, Functions, Browser control and detection, string, Form processing, database connectivity with MySQL.

| | **TOTAL** | **45** |

List of References:
1. APaul J. Deitel, Harvey M. Deitel, Abbey Deitel, "*Internet & World Wide Web How to Program*", Deitel series, 5th edition
2. Jason Gilmore, "*Beginning PHP and MySQL From Novice to Professional*", 4th Edition, Apress Publications
3. Kogent Learning Solutions Inc., "*Web Technologies*", Black Book, dreamtech Press
4. Behrouz A forouzan, *"Data Communication and networking",* Mc-Graw hill

Course Outcomes (COs):
At the end of this course students will be able to
1. Understand the concepts of Data Communication and Networking, Reference models
2. Understand the concepts of Internetworking & devices, Routing techniques
3. Understand the concepts of protocols like DNS, SMTP, SNMP, FTP, HTTP etc.
4. Analyze and design web page and identify its elements and attributes.
5. Create web pages using XHTML and CSS
6. Develop dynamic web pages using Javascript and PHP.