B.C.A. (Honours) & B.C.A. (Honours with Research)
(Semester - 1 and Semester - 2)
Saurashtra University
To be effective from June – 2023

CS-02: NETWORKING & INTERNET ENVIRONMENT

Objectives:
- To give brief idea about Computer Network and Internet Environment
- To be able to design and develop static and/or interactive website using HTML5, CSS and Javascript.
- To become familiar with different web elements.
- To get intermediate knowledge of CSS3, Javascript and Bootstrap Framework

Prerequisites:
- Basic Knowledge of Computer Network and Web Surfing

Unit No.	Topic	Detail
1	Introduction to Computer Network and it's Applications	- Computer Network - Type of Computer Network - Different Terminologies used in Computer Network Internet, ISP (Internet Service Provider), Intranet, VSAT (very small aperture terminal), URL, Portal, Domain Name Server, World Wide Web (WWW), Search Engine, Remote Login, Telnet, Email, E-Commerce, E-Business, E-Governance, Mobile Commerce - Website Basics (WebPages; Hyper Text Transfer Protocol, File Transfer Protocol, Domain Names; URL; Protocol Address; Website[Static, Dynamic, Responsive etc], Web browser, Web Servers; Web Hosting
2	Basic of HTML & Advance HTML 5	- Fundamental of HTML - Basic Tag and Attribute - The Formatting Tags - The List Tags - Link Tag - inserting special characters, - adding images and Sound, - lists types of lists - Table in HTML - Frame in HTML - Forms - HTML 5 & Syntax - HTML5 Document Structure (section, article, aside, header, footer, nav,

		dialog, figure)
		o Attributes of HTML 5
		o Web Form (datetime, date, month, week, time, number, range, email, url)
		o Audio / Video - Canvas

3	**Cascading Style Sheet & CSS 3**	• Introduction to CSS
		• Types of Style Sheets
		• Class & ID Selector
		• CSS Pseudo
		• CSS Font Properties
		• CSS Text Properties
		• CSS Background Properties
		• CSS List Properties
		• CSS Margin Properties
		• CSS Comments
		• CSS 3
		  o Border Property
		  o Background & Gradient Property
		  o Drop Shadow Property - 2D & 3D Transform Property
		  o Transition Property
		  o Box Sizing Property
		  o Position Property
		• Media Query
		• CSS Flexbox Properties
		(display, flex-direction, flex-wrap, flex-flow, justify-content, align-items, align-content, gap row-gap, column-gap)
		• CSS Advance Properties
		(Overflow, text-overflow, Cursor, Visibility, filter, backdrop-filter, object-fit)
		• How to use Google Fonts & Custom Fonts (@font-face)
		• BEM Naming Convention

4	**Java Script**	• Introduction to JavaScript • Variables • JavaScript Operators • Conditional Statements • JavaScript Loops, Break and Continue Statements

		• Dialog Boxes
		• JavaScript Arrays • JavaScript User Define Function • Built in Function: string, Maths, Array, Date • Events (onclick, ondblclick, onmouseover, onmouseout, onkeypress, onkeyup, onfocus, onblur, onload, onchange, onsubmit, onreset) • DOM & History Object • Form Validation & E-mail Validation
5	**Bootstrap Framework**	• Introduction to Bootstrap • Bootstrap Layout (Container, Row, Columns, Responsive classes, Offset Column, Reordering Columns) • Bootstrap Content (Typography, Tables, Images, Forms) • Bootstrap Components (Navbar, Navs and tabs, Dropdowns, Buttons, Button Groups, Breadcrumb, Pagination, Labels, Alerts, Progress Bars, Accordion, Card, Modal) Bootstrap Utilities (Colors, Background, Borders, Display, Overflow, Position, Spacing, Text, Vertical align)

Seminar   – 5 Lectures
Expert Talk   – 5 Lectures
Test   – 5 Lectures
Total Lectures: 60 + 15 = 75

Reference Books:
1. HTML in 10 steps or less - Laurie Ann Ulrich, Robert G. Fuller
2. Internet: The Complete Reference –Young.
3. World Wide Web Design with Html -C Xavier.
4. Internet for Every One –Leon.
5. Practical Html 4.O -Lee Philips.
6. MCSE Networking Essential Training Guides.
7. Benjamin Jakobus, Jason Marah, "Mastering BootStrap 4" 2nd Edition
8. Matt Lambert "Learning BootStrap 4", Packt Publishing

Course Outcome
✓ Able to understand Computer Network and Internet Environment
✓ Able to understand design and develop static and/or interactive website using HTML5, CSS and Javascript.
✓ Able to explore different web elements.
✓ Able to understand knowledge of CSS3, Javascript and Bootstrap Framework