Department: Computer Engineering

5th Semester, FOSS (Free and Open Source Software)

Lecture No.	Topic Name	
	Unit 1: Open Source Software	**08 Hrs**
1	Open Source Software (OSS), OSS advantages	
2	Free Software, Free and Open Source Software	
3	DCS	
4	FOSS Licensing Models	
5	Introduction to Popular FOSS Software - Linux	
6	DCS	
7	LibreOffice,LibreOffice,	
8	VLC Media Player, Mozilla Firefox	
	Unit 2: Introduction to Linux	**08 Hrs**
9	DCS	
10	Linux - History	
11	Features, Applications	
12	DCS	
13	Distributions,Linux Architecture	
14	Kernel, Boot Loader,	
15	DCS	
16	Shell,Graphical User Interface,WSL	
	Unit -3:: Linux File System	**08 Hrs**
17	FHS, Rules for Naming Files and Directories	
18	DCS	
19	File Types, Links - Hard and Soft, Linux File	
20	Management Commands - cat, touch, head, tail, cp	
21	DCS	
22	rm, mv, more, less, pwd, mkdir, rmdir,ls, cd,chmod,Use of Wildcard Characters	
23	Standard Output and Standard Error Files; Pipes,Filters and Redirection, Standard Input,	
24	DCS	
	Unit -4: : Basic Linux System Management	**08 Hrs**
25	Users and Groups, Linux Super User,Primary and Secondary Groups	
26	User and Group ManagementCommands - groupadd, groupdel, groupmod	
27	DCS	
28	groups, useradd, userdel, usermod, users,FilePermissions, File Permission Commands - chmod	
29	chown, chgrp; Process, Foreground andBackground Processes, Daemon, init Process	
30	DCS	

31	Process Management Commands - top, ps, kill;
32	Configuration Files - hosts, fstab, passwd, shadow, group, resolv.conf.
	Unit-5: : Linux Shell Scripting **8 Hours**
33	DCS
34	Linux Shells, bash Shell, Shell script, echo, read
35	Variables - Naming Rules, Readonly Variable,Unset Variables, Special Variables ($*, $$, $#, $?, $n),
36	DCS
37	Environment Variables, PositionalParameters
38	Command Substitution, Flow Control - if..then..fi,
39	DCS
40	else, elif, case, while, until, for, break,and continue
	Linux Networking **8 Hrs**
41	Networking Terminology (basic concept only) : TCP/IP, IPv4 and IPv6 Addresses
42	DCS
43	Netmask,Gateway, DNS, DHCP
44	TCP Ports; Linux Networking Commands : ifconfig, finger, ping, arp,netstat
45	DCS
46	Host,Traceroute,nmap,ssh,telnet
47	FTP Server, NFSServer, Proxy Server, DHCP Server, SAMBA.
48	DCS
	Jitender Mohan Sharma
	Lecturer Computer Application
	GMP Chamba
	Signature of HOD

Department: Computer Engineering

5th Semester, Web Programming

Lecture No.	Topic Name
	Unit 1: Dynamic Websites Basics 8 Hrs
1	Review of HTML5, CSS and Javascript,
2	HTTP, HTTP Request, HTTP Response
3	DCS
4	URL, Working of Web Servers and Web Browsers
5	Static and Dynamic Websites, Web Applications
6	DCS
7	Form Data submission methods - GET and POST
8	HTTP Sessions, HTTP cookies
	Unit 2: Introduction to PHP 10 Hrs
9	DCS
10	Origin of PHP, Advantages of PHP, Working of PHP
11	Embedding PHP code in Webpages, LAMP stack
12	DCS
13	Install and Configure PHP environment, PHP script
14	PHP syntax, Statements, comments, Variables, naming variables
15	DCS
16	Variable scope, Constants, echo, print statements, PHP Data types, String Literals
17	Single and Double Quoted Strings, Operators, PHP control statements, PHP arrays
18	DCS
	Unit -3: PHP Functions 8 Hrs
19	PHP standard Library functions: String Functions
20	htmlspecialchars(), ltrim(), rtrim(),
21	DCS
22	trim(),strtoupper(), strtolower(), explode(), implode()
23	strlen(), strcmp(),strpos(); Math Functions –sqrt()
24	DCS
25	ceil(), floor(), log(), pow(), sin(), cos(), tan()
26	User Defined functions
	Unit -4: PHP Form Processing 10 Hrs
27	DCS
28	HTML form element, action and method attribute,submit and clear button,
29	Form elements, name and id attribute, Hidden Input
30	DCS
31	Client side form validation, PHP superglobals - $GLOBALS, $_GET
32	PHP superglobals - $_POST, $_SERVER, $_REQUEST

33	DCS
34	PHP superglobals $_FILES, $_ENV, $_SESSION, $_COOKIE
35	Server side validation, Handling uploaded files
36	DCS

	Unit-5 Using MySQL Databases in PHP	**12 Hrs**
37	Basic Database concepts	
38	Database, table, Column types, Constraints	
39	DCS	
40	Connecting PHP to MySQL	
41	Executing simple SQL statements - Insert, Update	
42	DCS	
43	Executing simple SQL statements - Delete and select	
44	Retrieving and Processing Query results	
45	DCS	
46	mysqli_real_escape_string functions	
47	Handling MySQL errors	
48	DCS	

Subject Teacher

Arun Seth
Lecturer Computer Engg.
GMPC Chamba (H.P.)

HOD Computer Engg.

Semester - V

ITOE301 (Cyber Laws & Ethics)

Subject plan for the Session Aug – Dec 2025

Lecture No.	Topic
	Unit 1: Cyber Ethics & Etiquettes **(16hrs.)**
1	History of the Internet
2	Major Applications of the Internet - Email, WWW
3	Social Media(Facebook, Instagram, Whats app etc)
4	DCS
5	Online Payment, Online Gaming
6	Digital Footprints
7	Cyberworld, Digital Society and Netizen
8	DCS
9	Net Etiquettes
10	Cyber Ethics
11	Challenges and Importance of Cyber Ethics
12	DCS
13	Impact of the Internet on Society
14	Impact of Digital Technologies on Health
15	Government Guidelines and Digital Media Ethics Code
16	DCS
	Unit 2: Basics of Cybersecurity **(16hrs.)**
17	Need for Cybersecurity
18	Challenges in Cybersecurity
19	Cybersecurity Framework
20	DCS
21	Cybercrime - Hacking, Phishing
22	Fraud Emails, Identity Thef
23	Ransomware, Cyber Stalking/ Harassment
24	DCS
25	Cyberbullying, Denial-of-Service (DoS) Attacks
26	Cyber Terrorism, Cyber Defamation
27	Combatting and Preventing Cyber Crime
28	DCS
29	Prevention from Cybercrime using self-regulation
30	National Cyber Security Strategy
31	Challenges in Implementing a National Cyber Security Strategy
32	DCS
	Unit 3: Intellectual Property Right **(16hrs.)**
33	Intellectual Property Right (IPR)
34	Data Protection
35	Right to Privacy
36	DCS
37	Copyright and their Scopes
38	Patent and their Scopes
39	Trademark and their Scopes
40	DCS
41	Violation of IPR
42	Plagiarism

43	Copyright Infringement
44	DCS
45	Trademark Infringement
46	Types of Trademark Infringement
47	Protecting Your Trademark
48	DCS
	Unit 4: Cyber Laws in India **(16hrs.)**
49	Cyber Laws: Navigating the Digital World
50	Key Areas of Cyber Law
51	Importance of Cyber Laws
52	DCS
53	Major Provisions for Cybercrime under Indian Penal Code (IPC)
54	Indian IT Act-2000 (Sections 65, 66, 67, 69)
55	Digital Personal Data Protection Act 2023
56	DCS
57	Intellectual Property Rights
58	Patent Law
59	Copyright Law
60	DCS
61	Digital Signatures
62	Working of Digital Signatures
63	Key Benefits and Uses of Digital Signatures
64	DCS

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COMPUTER ENGGINEERING

Semester - V

COPC301 (Introduction to e - Governance)

Subject plan for the Session Aug – Dec 2025

Lecture No.	Topic
	UNIT 1 **(12hrs.)**
1	Exposure to emerging trends in ICT for development,e-Governance
2	Artificial Intelligence (AI), Cloud Computing, Internet of Things (IoT)
3	Machine Learning (ML), Edge Computing, CyberSecurity, Big Data Analytics
4	DCS
5	Augmented Reality (AR) and Virtual Reality (VR), Ethical and Responsible AI
6	Understanding of design of e-Government projects
7	Understanding the implementation of e-Government projects
8	DCS
9	e-Governance Lifecycle
10	Initiation, Planning, Design, Development, Testing
11	Implementation, Maintenance, Monitoring, Upgradation, Sunsetting
12	DCS
	UNIT 2 **(12hrs.)**
13	Need for Government Process Re-engineering (GPR)
14	Objectives of GPR
15	National e-Governance Plan(NeGP) for India
16	DCS
17	Key points of NeGP
18	Objectives of NeGP
19	Components, Impact, Evaluation of NeGP
20	DCS
21	SMART Governments
22	Thumb Rules in Governance
23	Importance of SMART Governments and Thumb Rules
24	DCS
	UNIT 3 **(16hrs.)**
25	Architecture and models of e-Governance
26	Centralized Model, Distributed Model, Networked Model
27	Cloud Computing Model, Service-Oriented Architecture (SOA), Mobile-First Model, Digital Platforms and Open Data
28	DCS
29	Public Private Partnership (PPP)
30	Need for Innovation and Change Management in eGovernance
31	Critical Success Factors
32	DCS
33	Major issue including corruption
34	Resistance for change
35	Addressing resistance to change in eGovernance requires a multifaceted approach
36	DCS
37	e-Security (Electronic Security)
38	Key Elements of e-Security
39	Cyber Laws
40	DCS

	UNIT 4	**(16hrs.)**
41	Focusing on Indian initiatives and their impact on citizens	
42	Initiatives in India	
43	Impact on Citizens	
44	DCS	
45	Sharing of case studies to highlight best practices in managing e-Governance projects in Indian context	
46	Key Takeaways from the case studies	
47	Visits to local e-governance sites (CSC)	
48	DCS	
49	Visits to local e-governance sites (eSeva)	
50	Visits to local e-governance sites (Post Office)	
51	Visits to local e-governance sites (Passport Seva Kendra)	
52	DCS	
53	Learning Objectives by visiting e-government sites	
54	Sharing of case studies in managing e-Governance projects	
55	Learning's from the different case studies	
56	DCS	
	UNIT 5	**(8hrs.)**
57	Mini Projects by students in groups	
58	Evaluation of various e-Governance project	
59	Selection of e-Governance Projects	
60	DCS	
61	Research and Analysis from Projects	
62	Data Collection and Analysis, Presentation and Recommendations	
63	Reflection and Conclusion, Benefits of Mini Projects	
64	DCS	

Signature of Teacher

Rajni Devi
Sr. Lect. Comp. Engg.

Signature of HOD

Computer Department 5th Semester Software Engineering Subject plan for the Session August 2025	
Lecture NO	**Topic NO**
	Unit-1 : Introduction to Software Engineering(06 Hrs) 10 Marks
1	Software Overview: Definition, Characteristics
2	Software Evolution; Software Paradigms Software Development Paradigm
3	Software Design Paradigm and Programming Paradigm.
4	DCS
5	Software Engineering: Definition, Need of Software Engineering
6	Emergence of Software Engineering
7	Notable Changes in Software Development Practices
	Unit-2 : Software Development Life Cycle and Models(10 Hrs) 20 Marks
8	DCS
9	Software Development Life Cycle Activities: Communication
10	Requirement Gathering, Feasibility Study
11	System Analysis, Software Design
12	DCS
13	, Coding, Testing, Integration
14	Implementation and Operation and Maintenance
15	Software Development Life Cycle Models : Classical Waterfall Model
16	DCS
17	Prototype Model, Rapid Application Model
18	Model, Spiral Model,
19	Comparison of Different Life Cycle Models
20	DCS
21	Selection Criteria of an Appropriate Life Cycle Model for a Project.
	Unit-3 : Software Cost Estimation (08 Hrs) 12 Mark
22	Metrics used for Project Size Estimation
23	Metrics used for Project Size Estimation
24	DCS
25	Project Estimation Techniques
26	Project Estimation Techniques
27	Empirical
28	DCS
29	COCOMO Estimation Techniques.
30	COCOMO Estimation Techniques.
31	COCOMO Estimation Techniques.
32	DCS
	Unit-4 : Software Requirement Analysis and Specification(10 Hrs) 20 Marks
33	Software Requirements: Goal of the Requirements Analysis
34	Specification Phase
35	Types of Requirements - Functional Requirements
36	DCS
37	Non-Functional Requirements
38	User Interface Requirements;
39	Requirement Elicitation Process: Requirements Elicitation
40	DCS
41	Organizing Requirements, Negotiation
42	Discussion and Documentation; Requirement Elicitation Techniques: Interviews
43	Surveys, Questionnaires, Brainstorming, Requirements Analysis

44	DCS
45	Software Requirements Specification (SRS) Document, User of SRS Document, Characteristics of a Good SRS Document.
	Unit-5 : Software Design (08 Hrs) 14 Marks
46	Software Design Overview: Goals and Outcome of Software Design Phase
47	Characteristics of a Good Software Design
48	DCS
49	Cohesion and Coupling
50	Software Design Levels: Architectural Design
51	High-level Design and Detailed Design; Software Analysis and Design Tools (Introduction Only)
52	DCS
53	Data Flow Diagram, Structure Charts. Software Design Strategies:
54	Structured Design, Function Oriented Design,
55	Software Design Approaches: Top Down Design, Bottom Up Design
	Unit-6 :Software Coding(06 Hrs) 10 Marks
56	Software Coding Overview: Goal of Software Coding Phase
57	Coding Standards and Guidelines
58	Code Reviews: Code Walkthrough
59	DCS
60	Code Inspection,Clean Room Testing
61	Software Documentation: Internal Software Documentation and External Software Documentation
	Unit-7 : Software Testing(08 Hrs) 14 Marks
62	Software Testing Overview: Goal of Software Testing Phase
63	Software Verification versus Software Validation
64	Testing Activities,Software Testing Approach

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Computer Department 3rd Semester

Data Communication and Computer Networks Subject plan for the Session August 2025

Lecture NO	Topic NO	
	Unit 1:Fundamentals of Data Communications(6Hrs) 10 Marks	
1	Definition of data communication, fundamental characteristics of data communication - delivery,	
2	accuracy, timeliness, jitter	
3	Components of data communication - message, sender, receiver, transmission medium, and protocol.	
4	DCS	
5	transmission medium, and protocol	
6	Data representation - text, numbers, images, audio, video	
7	Data flow -simplex, half-duplex, full duplex.	
8	DCS	
	Unit-2 : Introduction to Computer Networks((08 hrs) 15 marks	
9	Definition & objectives of computer network	
10	objectives of computer network	
11	networking models - client-server	
12	DCS	
13	networking models - peer-to-peer	
14	Types of network - PAN, LAN	
15	MAN, WAN	
16	DCS	
17	network topologies - mesh, star	
18	network topologies bus, ring	
	Unit 3:ISO-OSI Model(15 hrs) 30 Marks	
19	OSI Model Introduction	
20	DCS	
21	Physical Layer OSI Model	
22	Physical Layer OSI Model	
23	data link Layer OSI MODEl	
24	DCS	
25	data link Layer OSI MODEl	
26	network layer OSI Model	
27	Transport layer OSI Model	
28	DCS	

29	Transport layer OSI Model	
30	Session Layer OSI Model	
31	Session Layer OSI Model	
32	**DCS**	
33	Presentation Layer OSI Model	
34	Presentation Layer OSI Model	
35	Application Layer OSI Model	
36	**DCS**	
37	Application Layer OSI Model	
	Unit4: Transmission Media(06 Hrs) 10 marks	
38	Guided and unguided transmission media; twisted pair cable - UTP Vs STP	
39	RJ45 connector, categories of UTP, applications;	
40	**DCS**	
41	coaxial cable - coaxial cable standards, connector, and applications	
42	optical fiber cable - construction and principle,	
43	propagation modes, connectors, applications, advantages, disadvantages;	
44	**DCS**	
45	wireless transmission -radio waves, microwaves, infrared; ISM band	
	Unit5: : Network Devices (06hrs) 10 marks	
46	Network Interface Card,	
47	repeater, hu	
48	**DCS**	
49	switch, bridge,	
50	router	
51	modem, firewall	
52	**DCS**	
53	Gateway	
	Unit6:TCP/IP Model(15hrs) 25 marks	
54	Layers of TCP/IP - network layer	
55	Layers of TCP/IP - network layer,FTP,DHCP,	
56	**DCS**	
57	classes of IP addressing	
58	classes of IP addressing,SMTP,Telnet	
59	CIDR and subnet mask notation of IP addresses	
60	**DCS**	
61	CIDR and subnet mask notation of IP addresses	
62	subnetting,Supernetting, DCS,IPV4 Header	
63	need of IPv6. Transport layer: TCP, UDP,	
64	**DCS**	

Deptt. of Computer Engg.

Class : 3rd Semester

Lesson Plan for Operating systems

Lect. No.	Topic No.
	Unit 1: Overview of Operating System **10 Hrs**
1	Objectives and Functions
2	Evolution of Operating Systems- Batch Processing Systems
3	Multi-programming System, Time-sharing Systems,
4	DCS
5	Desktop systems, Real-time Systems,
6	Distributed Systems Architecture
7	Embedded Systems
8	DCS
9	Architecture: Monolithic Vs Microkernel
10	Virtual Machine, Benefits of Virtual Machine.
	Unit 2: Process Management **12 Hrs**
11	Process concept, Process State,
12	DCS
13	Process Control Block, Scheduling Queues, Scheduler
14	Context Switch, Operations on Processes, Interprocess Communication,
15	Shared Memory Systems, Message Passing System
16	DCS
17	CPU Scheduler, Scheduling Criteria
18	Scheduling Algorithms, Preemptive and Non Preemptive
19	First come first serve (FCFS), Shortest Job first (SJF),
20	DCS
21	Round Robin (RR), Multiprocessor scheduling
22	Process Synchronization
	Unit 3: LINUX Operating System **10 Hrs**
23	History of Linux and Unix, Linux Overview, Structure of Linux, Linux releases
24	DCS
25	Open Linux, Linux System Requirements

26	Linux Commands and Filters: mkdir, cd, rmdir,pwd, ls, who, whoami,	
27	date, cat, chmod, cp, mv, rm	
28	DCS	
29	pg, more, pr, tail,	
30	head, ln, grep	
31	wc, sort, kill, write, talk	
32	DCS	
33	mseg, wall, merge, mail	
34	input, output, redirection	
35	pipes	
36	DCS	
	Unit 4: Introduction to Deadlocks	
37	Deadlock, Conditions for Dead lock	8Hrs
38	Methods for handling deadlocks,	
39	Deadlock Prevention	
40	DCS	
41	Deadlock Avoidance,	
42	Deadlock detectio	
43	Recovery from deadlock.	
44	DCS	
	Unit 5: Memory Management	10 Hrs
45	Definition – Logical and Physical address Space, Swapping	
46	Memory allocation, Contiguous Memory allocation, Fixed and variable partition	
47	Internal and External fragmentation and Compaction	
48	DCS	
49	Page allocation	
50	Hardware support for paging, Disadvantages of paging	
51	Segmentation	
52	DCS	
53	Virtual Memory.	
54	Page replacement policies - FIFO, Optimal, LRU.	
	Unit 6: File and Input/Output Management	10 Hrs
55	Types of File System; Simple file system, Basic file system	
56	DCS	

57	Logical file system, Physical file system
58	Various Methods of Allocating Disk Space.
59	Dedicated Devices, Shared Devices
60	DCS
61	I/O Devices, Storage Devices,
62	Buffering, Spooling
63	Disk scheduling - FCFS, SSTF, SCAN, C-SCAN.
64	DCS

Ila Panwar

(HOD Comp. Engg.

	Computer Engg. Department 3rd Semester
	Computer System Architecture Subject plan for the Session Aug.to Dec. 2025
	Unit 1:Introduction **4 Hours**
1	Functional units of Digital Computer, Computer Organization, Computer Design
2	Computer Architecture, Von-Neumann and Harvard architecture, Bus Interconnection
3	Dot Clearing session
4	Evolution of Microprocessors, Concept of Microcomputer, Microcontroller and Embedded Systems
	Unit 2: Overview of Digital Electronics **10 Hours**
5	Number systems: Decimal, Binary, Octal and Hexadecimal. Conversion from one number system to other number Syst
6	Dot Clearing session
7	Signed Binary Numbers: Sign Magnitude Representation, One's Compliment Representation and Two's Compliment Re
8	Binary Arithmetic: Addition, Subtraction, Binary Arithmetic using one's and Two's Compliment
9	Dot Clearing session
10	Binary Arithmetic: Addition, Subtraction, Binary Arithmetic using one's and Two's Compliment.
11	Fixed and Floating Point Numbers, Computer Codes: BCD, EBCDIC, ASCII.
12	Dot Clearing session
13	Fixed and Floating Point Numbers, Computer Codes: BCD, EBCDIC, ASCII.
14	Multiplication Algorithms - Hardware Implementation for Signed-Magnitude Data, Booth Multiplication Algorithm.
15	Dot Clearing session
	Unit 3: Digital Logic **10 Hours**
16	Logic Gates: Symbols and Truth Table
17	Boolean Algebra, Logic Diagram, De Morgan's Theorem,
18	Dot Clearing session
19	Combinational Circuits: Block Diagram, Half Adder, Full Adder
20	Flip Flop: SR, D Flip Flop and
21	Dot Clearing session
22	J K Flip Flop, Example of a sequential circuit
23	Decoder & Encoder: 3 to 8
24	Dot Clearing session
25	Multiplexer & De Multiplexer: 4 to 1 line
	Unit 4: Basic Architecture of Microprocessor 8085 **8 Hours**
26	Basic features of 8085 Microprocessor,
27	Block Diagram of 8085 Microprocessor
28	Dot Clearing session
29	Functions of various blocks
30	Concept of Buses, Bus Multiplexing and De-multiplexing
31	Dot Clearing session
32	Status Flags, Addressing Modes
33	and Interrupts
	Unit 5: Central Processing Unit **: 8 Hours**

34	Dot Clearing session
35	Major Components of CPU, General Register Organization, Control Word
36	Stack OrganizationRegister and Memory Stack.
37	Dot Clearing session
38	Reverse Polish Notation and Evaluation of Arithmetic Expressions
39	Instruction formats – Three Address Instructions, Two Address Instructions, One Address Instructions, Zero Address
40	Dot Clearing session
41	Brief Introduction to RISC and CISC Processors, Concept of Parallel Processing and Pipelining.
	Unit 6: Memory Organization **8 Hours**
42	Components of memory hierarchy
41	Dot Clearing session
42	main memory, auxiliary memory and cache memory, Introduction to Associative Memory,
43	Cache Memory - Locality of Reference, Hit Ratio, Writing into Cache - Write Through, Write Back,
44	Dot Clearing session
45	Input-Output Interface –Purpose, I/O Versus Memory Bus
46	Isolated versus Memory-Mapped I/O.
47	Dot Clearing session
48	Isolated versus Memory-Mapped I/O.

Rajni Devi
Sr. Lect. Comp. Engg.

Signature of HOD

Government Millennium Polytechnic, Chamba

Department: Computer Engineering

3rd Semester, Computer Programming using C

Lecture No.	Topic Name
	Unit 1: Introduction to Programming 8 hours
1	Program design tools: Algorithm
2	Flowchart , Pseudocode
3	Evolution of Programming Languages,
4	DCS
5	Programming Terminology - Program, Compiler, Interpreter
6	Linker, Source code, Libraries
7	Errors (Syntax and Semantic Error)
8	DCS
	Unit 2: Introduction to C Language 10 hours
9	Brief History of C Language
10	Features of C Language, Character Set
11	Identifiers, Keywords, Literals
12	DCS
13	Variables, Constants,
14	Structure of C Program
15	Comments, Preprocessor Directives
16	DCS
17	Data Types, Type Casting
18	Storage Classes
	Unit -3: Input / Output 08 Hours
19	Unformatted I /O functions
20	DCS
21	getchar(), purchar ()
22	gets() , puts()
23	Formatted I / O functions
24	DCS
25	format specifier
26	printf, scanf,
	Unit -4: Operators 10 hours
27	Arithmetic Operators, Expressions
28	DCS
29	Relational Operators, Logical Operators
30	Bitwise Operators,
31	Assignment Operators
32	DCS
33	Conditional Operator,

34	Special Operators
35	Associativity of Operators, Order and precedence of Operators
36	DCS

	Unit-5: Flow Control Statements	**12 Hrs**
37	Branching statements: if, if else	
38	Nested if, if else if ladder	
39	switch case	
40	DCS	
41	Unconditional goto	
42	break, coninue, return	
43	Loops: while, do while	
44	DCS	
45	for loop	
46	Nested Loop	
47	Infinite Loop	
48	DCS	
	Unit 6: Array, structure, Unions and Pointer	**10 hours**
49	Definition of Array, Memory Representation	
50	One-Dimensional Arrays and Two-Dimensional Arrays:	
51	Declaration and Initialization; Enumeration	
52	DCS	
53	Strings, String Constants, Escape Sequences	
54	Functions - srtlen(), strrev()	
55	strcmp(), srtcpy(), strcat(); Structures	
56	DCS	
57	Unions, Pointer: Declaration,	
58	Initialization, Assignment, Dynamic Memory Allocation: malloc(), calloc(), free	

	Unit 7: functions	**06 hours**
59	Definition of Function, Function Prototype	
60	DCS	
61	Formal and Actual Parameters,	
62	Function Call, Call by Value, Call by Reference	
63	Arrays as Function Argument, Recursion	
64	DCS	

Subject Teacher

Arun Seth
Lecturer Computer Engg.
GMPC Chamba (H.P.)

HOD Computer Engg.

Department: Computer Engineering

3rd Semester, Web Technologies

Lecture No.	Topic Name
	Unit 1: Basics of WWW **06 Hrs**
1	Internet and its applications, World Wide Web and its evolution,web page
2	web site (static and dynamic), Web Applications, URL, Web Browsers, Search Engine,
3	DCS
4	Proxy Server, web server,
5	HTTP, HTTP Request,HTTP Response
6	DCS
	Unit 2: HTML5 **13 Hrs**
7	HTML5 structural elements: <html>, <head>, <body>
8	head elements : <title>, <meta>, <link>,body elements: <h1>..<h6>, <table>
9	DCS
10	<hr>, <p>, <a>, , ,
11	<img>, <iframe>;comments, semantic elements: <article>,
12	DCS
13	<aside>, <details>, <figcaption>, <figure>, <footer>,
14	<header>, <main>, <mark>, <nav>,<section>, <summary>, <time>;
15	DCS
16	HTML Lists: Ordered Lists, Unordered Lists, Definition Lists and Nested Lists,
17	Table elements: <table>, <thead>, <tbody>,<tfoot>, <tr>, <th>, <td>; using rowspan and colspan attributes
18	DCS
19	<button>, <datalist>, <fieldset>, <label>, <legend>, Form elements: <input>, <select>, <option>, <optgroup>, <textarea>,
	Unit -3:: Cascaded Style Sheet (CSS) **11 Hrs**
20	CSS overview-CSS rule, Selectors, CSS types: inline, internal
21	DCS
22	external; CSS box mode,CSS attributes: border, margin
23	padding, height, width, color,text-align, border-collapse, border spacing,
24	DCS
25	background-color, background-image, background-repeat,
26	background-attachment, background-position, text-decoration
27	DCS
28	letter-spacing, word-spacing, font-family, text-transform,font-style, font-size,
29	font-variant, position, display, float, list styles, table styles, pseudo classes,
30	DCS

	Unit -4: : Client-Side Scripting using JavaScript **11 Hrs**
31	JavaScript overview,<script> element, variable
32	lifetime, scope of variables, operators,
33	DCS
34	control statements: if...else,
35	switch...case; iteration: for,
36	DCS
37	while, do...while;
38	linking external JavaScript file with an HTML document, built-in java script function
39	DCS
40	user-defined functions.
41	variables

	Unit-5: : jQuery **07 Hrs**
41	DCS
42	Need of jQuery, Adding jQuery to a Webpage - using CDN or Local Copy;
43	jQuery Selectors, jQueryEffects - hide(), show(),
44	DCS
45	toggle(), fadeIn(), fadeOut(), fadeTo(),
46	fadeToggle(), animate();
47	DCS
48	ready(), load(), on(), off().jQueryEvents - blur(), click(), focus()
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