PLANNED SYLLABUS COVERAGE(Theory)

P angra	Department: Computer Engg. Subject CPUC	
YLLABUS OVERAGE	Course Diploma Duration 03 years.	
	Total Periods 56 (T), 56(P) 14 weeks Theory T=56 P=56.	

Sl.No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1.	1-7	Intro. to Programming	Program Design Tools: Algorithms, Flowcharts, Pseudocode, Evolution of Programming Languages, Programming Terminology - Program, Compiler, Interpreter, Linker, Source Code, Libraries, Syntax and Semantic Errors, Bugs.			
2	8-16	Intro. to C language	Brief History of C language, Features of C language. character set Identifier, Keywords, Literals, Variables, Constants, Structure of a C program, Comments, Preprocessor Directives, Data Types, Type casting, Storage Classes.			
3.	17-23	Input/output	Standard Input, Standard Output, Standard Error, I/O Redirection, Unformatted I/O functions - getchar(), putchar(), gets(), puts(), Formatted I/O functions - printf(), scanf(), Format Specifiers			

	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
4.	24-31	Operaters.	Arithmatics, Relationals, Logical Bitwise, Assignment, Conditional Special. Expressions, Associativity and order of Precedence of operaters.			
5.	32-41	Flow Control Statements	selection statements: If, if-else, Nested-if if-else-ladder, Switch-case. Loops: While, For, do-while, Jump statement: goto, Break, continues, returns Nested-loop. Infinite loops			
6.	42-50	Array, structure Unionand Pointers	Array, Memory representation One-dim, two-dim. Declaration and initialization Enumeration, Strings Constant Escape sequence. Standard string functions strlen(), strrev(), strcmp(), strcpy(), strcat(), Structure, Union, Dynamic Memory allocation functions malloc(), calloc(), free()			

Extra Topics to be covered beyond the scope of the syllabus (as required by industry/ as recommended by Teacher which he/ she finds necessary)

	Period No.	Topic Covered	Instruction Reference	Additional Study recommended	Remarks
7.	51-55	Functions: Definitions of functions. Function prototype, Formal and actual parameters, Function call, call by value. and call by reference. Array as Function Arguments, Recursion.			

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e additional sheets (if required).

GPK-F-17

PLANNED SYLLABUS COVERAGE(Theory)

G P Kangra	Department: Comp. Engg.	Subject OS	
	Course Diploma	Duration 3years	
SYLLABUS COVERAGE	Total Periods 04/week	Theory 56	

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1	1-10	Unit-1 (Overview of OS)	Objectives & Fun's of OS, OS Evolution - Batch processing sys., Multiprogramming sys., Time Sharing Systems, Personal Comp OS, Handheld Comp. sys., Real time sys., Distributed sys., OS Arch. Monolithic Vs Microkernel.	Modern OS by Andrew S. Tanenbaum Linux with OS concepts by Richard Fox, Chapman & hall.		
2.	11-20	Unit-2 (Processes & threads)	Process, Process states, Process life cycle, PCB, Threads, Multi-threading, Inter-process comm^n, Process synchronization, race condition, Critical section prob. & its soln, Deadlocks - Characterization, necessary conditions, deadlock avoidance, Prevention & recovery.	— do —		
3.	21-31	Unit-3 (CPU Scheduling)	CPU Schedule, Pre-emptive & non-preemptive scheduling, Scheduling Criteria - CPU Utilization, Throughput, Turnaround time, waiting time, Response time, Scheduling Algo - FCFS, shortest job first, Shortest remaining time first, Priority Scheduling, Round Robin, Multiprocessor Scheduling.	— do —		

To be approved from concerned HOD within seven days from beginning of semester & will be kept with the concerned teacher in his file.

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
4	32-42	Unit-4 (Memory Mgmt)	Memory hierarchy, Address space, address translation, Memory protection, Swapping, Contiguous Mem. allocation, Fixed partitions & Variable partition schemes, Mem. Allocation Strategies Fragmentation, Compaction, Non-Contiguous Mem allocation, Paging Segmentation, Virtual mem, demand paging, Thrashing, page replacement policies.	— do —		
5	43-49	Unit-5 (Storage Mgmt)	Storage devices - Magnetic tapes, Magnetic disks, Optical disks, Flash Storage, Sequential & direct access, disk Scheduling- SCAN, CSCAN	— do —		
6	50-56	Unit-6 (Linux OS)	Features, GNU Project, Linux Arch Kernel, System calls Interface, Sys- Libraries, Shell.	— do —		

Extra Topics to be covered beyond the scope of the syllabus (as required by industry/ as recommended by Teacher which he/ she finds necessary)

Sr. No.	Period No.	Topic Covered	Instruction Reference	Additional Study recommended	Remarks

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PLANNED SYLLABUS COVERAGE(Theory)

GP Kangra	Department: Comp. Engg. Subject Web Technology.				
	Course Diploma Duration 3 Years				
SYLLABUS COVERAGE	Total Periods 42 Theory 42				
Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1.	1-8	Internet and WWW.	Brief history of internet, Structure of internet, Internet services and applications, different ways to connect to Internet, common Internet issues, WWW, HTTP Network Protocol, browser, website Web application, Hypertext, Hyperlink, Search engine, URL, DNS	HTML and CSS, Design and Build Website, John Ducket, Wiley Publishing.	http://www.w3schools.com - HTML & CSS Tutorials.
2.	9-16	HTML 5	HTML coding conventions, HTML Tag, Structure of HTML, Global attributes, Structure of web page, and attributes, HTML comments, DOM.		

3.	17-26	HTML Basic elements.	Heading h1-h6, <p>, <pre>, <code>, <q>, <var>, ordered and unordered list, attributes of list elements, Nested list,
			, <hr>, <b>, , , <i>, table tags, table attributes like cellspacing, Cellpadding, border, rowspan, colspan, Hyperlink attributes,			

4.	27-32	HTML Layout elements	Block and inline elements, , , identifying elements like id, class, and name attributes, <iframe>, HTML5 semantic elements,			
5.	33-40	Cascading style sheets.	CSS types, <style> and <link> elements, CSS rule, Selectors, CSS box model, CSS colors,			

To be approved from concerned HOD within seven days from beginning of semester & will be kept with the concerned teacher in his file.

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	
6.	41-48	Javascript	Setting color of text, Styling text, CSS Layout, Styling tables, Basic animations using CSS, CSS Pseudo elements and pseudo classes Role of java script in webpage, embedding JS in webpage, Java Script variables, JS operators, Control statments, JS arrays, Accessing and manipulating HTML DOM elements with JS, Built in JS Functions, User defined functions.			

Extra Topics to be covered beyond the scope of the syllabus (as required by industry/ as recommended by Teacher which he/ she finds necessary)

Sr. No.	Period No.	Topic Covered	Instruction Reference	Additional Study recommended	Remarks

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GPK-F-17

PLANNED SYLLABUS COVERAGE(Theory)

G P Kangra	Department: Computer Engg	Subject: C&A.	
	Course: Diploma	Duration: 6 months	
SYLLABUS COVERAGE	Total Periods: 42	Theory: 42(T)	

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1		Unit-1: Introduction	Functional Units of Digital Computer, Computer Organization, Computer Design, Computer Architecture, Von-Neumann & Harvard Architecture, Bus Interconnection, Evolution of Microprocessors, Concept of Microcomputer, Microcontroller & Embedded Systems.	Computer System Architecture by M. Morris Mano.	https://www.w3schools.com	
2		Unit-2: Overview of Digital Electronics	Number Systems: Decimal, Binary, Octal & Hexadecimal. Conversion from one number system to other number system, Signed Binary Nos. Sign Magnitude Rep. 1's Compliment, 2's Compliment. Binary			

To be approved from concerned HOD within seven days from beginning of semester & will be kept with the concerned teacher in his file.

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
			Arithmetic: Addition Subtraction. Binary Arithmetic using 1's & 2's compliment. Fixed & Floating Point Numbers. Completer Codes: BCD, EBCDIC, ASCII. Multiplication Algo. – H/W implementation for signed Magnitude Data, Booth Multiplication Algo	-do-	https://www.w3schools.com.	
3		Unit-3: Digital logic	Logic Gates: Symbols & Truth table,			

Extra Topics to be covered beyond the scope of the syllabus (as required by industry/ as recommended by Teacher which he/ she finds necessary)

Sr. No.	Period No.	Topic Covered	Instruction Reference	Additional Study recommended	Remarks

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PLANNED SYLLABUS COVERAGE(Theory)

G P Kangra	Department: Computer Engg	Subject: C&A.	
	Course: Diploma	Duration: 6 months.	
SYLLABUS COVERAGE	Total Periods: 42	Theory: 42 (T)	

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
			Boolean Algebra, logic Diagrams, De Morg-an's Theorem, Combi--national Circuits: Block Diagrams, Half Adder, Full Adder, flip flop, SR, D, JK. Example of a sequential circuit, Decoder & Encoder-3to8 MUX & DEMUX -4to1 & 1to4.	Computer System		
4.		Unit-4: Basic Archi-tecture of Microprocessor 8085.	Basic features of 8085 Microprocessor, Block Diagram of 8085 Microprocessor, Funct-ions of various bl-ocks, Concept of Buses Bus Multiplexing & De-multiplexing, Status flags, Address-ing Modes & Interrupts	Archite-cture by M. Morris Mano.	http:// www. w3schools. com.	
5.		Unit-5: Control Processing Unit.	Major Components of CPU, General Register Organization, Control word, Stack Organization-Register			

To be approved from concerned HOD within seven days from beginning of semester & will be kept with the concerned teacher in his file.

Sr. No.	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
6		Unit-6: Memory organization	and Memory stack. Reverse Polish Notation & Evaluate of Arithmetic Exp^{n}, Instr^{n} Formats- 3, 2, 1, 0 Address Instr^{n}s. RISC & CISC Coprocessors. Parallel Processing & Pipelining. Components of Memory Main memory, Cache & Auxilliary memory Associative memory. Hit Ration: Write Through & Write Back in Cache I/O Interface - I/O versus Memory Bus, Isolated I/O Memory mapped I/O.	-do-		

Extra Topics to be covered beyond the scope of the syllabus (as required by industry/ as recommended by Teacher which he/ she finds necessary)

Sr. No.	Period No.	Topic Covered	Instruction Reference	Additional Study recommended	Remarks

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Date 01/08/25	HOD Sign
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Use additional sheets (if required).