

# GOVERNMENT POLYTECHNIC FOR WOMEN

KANDAGHAT, DISTT. SOLAN (HP) - 173215

## **DEPARTMENT OF COMPUTER ENGINEERING** LESSON PLAN

Academic Year	2020-21
Semester	III
Subject Code	N2017-3.5
Subject Title	Data Communication & Computer Network
Name of Faculty	Kuldeep Sharma(CSE)
Semester Start & End Dates	01.09.2022- 20.12.2022

## STUDY AND EVALUATION SCHEME

Sr.	Name of the		Pr		Intern ssessn		Ex	terna	l Asse	ssment		Total Marks
No.	<sup>'</sup> Subject			Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	Wates
3.1	Data Communication & Computer Network	4	2	30	20	50	100	3	50	3	150	200

Day	Unit & Topic of Discussion	Topic objectives	Delivery Method			
	Unit-1: Fundamentals of Data Con	nmunications				
Day 1	Definition	Definition of data communication	Chalk & Talk			
•	Characteristics & Components	Fundamental characteristics of data communication - delivery, accuracy, timeliness, jitter	Chalk & Talk			
Day 3	Components	Components of data communication - message, sender, receiver, transmission medium, and protocol				
Day 4	Data representation &	Discourant time tout much one images and in Co				
Day 5	Data Flow	Data flow - simplex, half-duplex, full duplex.	Chalk & Talk			
<b>D</b>	Unit-2: Introduction to Computer		Chalk & Talk			
Day 6	Definition	Definition & objectives of computer network				
Day 7	Networking models	client-server, peer-to-peer	Chalk & Talk			
Day 8&9	Types of network	PAN, LAN, MAN, WAN	Chalk & Talk			
Day 10&11	Network topologies	Mesh, Star, Bus, Ring.	Chalk & Talk			
Day 12		Class Test 1	• 1			

	Unit-3: ISO-OSI Model		7,17
Day 13-18	ISO- OSI Model	Seven layers of OSI model; functions of physical, data link, network, transport, session, presentation, and application layers.	Chalk & Talk
	Unit-4: Transmission Media		2
Day 19,20	Guided and unguided transmission media	Guided and unguided transmission media; twisted pair cable - UTP Vs STP, RJ45 connector, categories of UTP, applications	Chalk & Talk
Day 21,22	Coaxial cable	coaxial cable - coaxial cable standards, connector, and applications	Chalk & Talk
Day 23,24	Optical fiber cable	optical fiber cable - construction and principle, propagation modes, connectors, applications, advantages, disadvantages	
Day 25,26	Wireless transmission	wireless transmission - radio waves, microwaves, infrared; ISM band.	Chalk & Talk
Day 27		Class Test 2	
	Unit-5 : Network Devices		7 - 7 - 7 - 7 - 7 - 7
Day 28-34	Network Devices	Network Interface Card, repeater, hub, switch, bridge, router, gateway, modem, firewall.	Chalk & Talk
	Unit-6: TCP/IP Model	•	1
Day 35-42	Layers of TCP/IP	Network layer: classes of IP addressing, CIDR and subnet mask notation of IP addresses, subnetting, supernetting, IPv4 header, need of IPv6. Transport layer: TCP, UDP, concept of ports, well known ports. Application layer:	
Day 43-48		SMTP, TELNET, FTP, DHCP. Revision Classes	

	Name of Book	Author Name	Publication
	Computer Network	Andrew S. Tanenbaum	PHI Publication
Prescribed Books	Data Communications and Networking	Forouzan	Tata McGraw Hill
Reference Books	Data and Computer Communication	William Stallings	Pearson Publication

Faculty in Charge

Kuldeep Sharma

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# GOVERNMENT POLYTECHNIC FOR WOMEN

KANDAGHAT, DISTT. SOLAN (HP) - 173215

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### DEPARTMENT OF COMPUTER ENGINEERING **LESSON PLAN**

Academic Year	2022-23	
Semester	111	
Subject Code	N2017-3.4	
Subject Title	Advanced Programming in 'C' Language	
Name of Faculty	Ritu Gulyani(CSE)	
Semester Start & End Dates 01.09.2022 - 20.12.2022		

## STUDY AND EVALUATION SCHEME

- 1	Sr.	Name of the	Th	Th	Th	Th	Pr		Interr ssessn		Еx	terna	l Asse	ssmen	t	Total Marks
	No.	Subject			Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	Marks			
	3.1	* Advanced Programming in 'C' Language	4	6	30	20	50	100	3	50	3	150	200			

Day	Unit & Topic of Discussion Topic objectives		Delivery Method			
	Unit-1: Introduction to Programming	h				
Day 1	Algorithm & Flowchart	Algorithm, Flowchart, Evolution of Programming Languages, Structured Programming.	Chalk & Talk			
Day 2	Compiling	Compiling, Linking, Testing and Debugging a program Syntax Error, Semantic Error. Systems	.Chalk & Talk			
	Unit-2: Introductions to 'C' Language					
Day 3	Fundamentals of C	Character set, identifier, keywords, variables, data types.	Chalk & Talk			
Day 4	Fundamentals of C	ndamentals of C Constants and literals. Structure of a 'C' program.				
Day 5	Unformatted 1/0 functions	Unformatted 1/0 functions - getchar(), putchar(), gets(), puts().				
Day 6	Formatted 1/0 functions	Formatted 1/0 functions - printf(), scanf().	Chalk & Talk			
	Unit-3: Operators					
Day 7	Operators	Arithmetic operators, relational operators.	Chalk & Talk			
Day 8	Operators	logical operators, bit-wise operators,	Chalk & Talk			
Day 9	Operators	Assignment operators, conditional operators, special operators	Chalk & Talk			
Day10	Operators	Associativity and order of precedence of operators.	Chalk & Talk			
	Unit-4: Flow Control Statements					
Day11	Statements	Branching statements: Conditional - if, ifelse	Chalk & Talk			

Day12	Statements	Nested if .	Chalk & Talk
Day 13	The second secon	ifelse if ladder .	Chalk & Talk
		Switchcase	Chalk & Talk
Carl Commercial	Statements	Continue, return	Chalk & Talk
Day 15	Statements	While, dowhile	Chalk & Talk
Day 16	loops	for; Nested loops,	Chalk & Talk
	loops	Infinite loops.	Chalk & Talk
Day 18	loops	make the sound on the sound on the sound of	Chalk & Talk
	Unit-5: Storage Classes	Scope and lifetime of variables	the state of the s
Name and Address of the Owner,	Variables	local and global variables	Chalk & Talk Chalk & Talk
Annual Control of the	Variables Storage classes	Storage classes - auto, extern	Chalk & Talk
A CONTRACTOR OF THE PARTY OF TH	Storage classes	Static, register.	Chaik & Taik
	The second section of the second second second section is the second second second second second second second	Tillie, 1 Carlotte and the state of the stat	
Day 23	Unit-6 : Arrays	Definition of array, memory representation of arrays	Chalk & Talk
	Introduction	One-dimensional arrays: declaration	Chalk & Talk
	One-Dimension array	One-dimensional arrays: Initialization	Chalk & Talk
Marian Marian Marian Marian	One-Dimension array	Two-dimensional arrays: declaration	Chalk & Talk
	Two-Dimension array Two-Dimension array	Two-dimensional arrays: initialization,	Chalk & Talk
Day 27 Day 28	A CONTRACT OF THE PARTY OF THE	Strings, standard string functions-srtlen(),	Chalk & Talk Chalk & Talk
	String Functions	String functions-strrev(),strcmp()	Chalk & Talk
	String Functions	string functions- srtcpy(), strcat().	Chair & Fair
	Unit-7: Functions		
	Y	Definition	Chalk & Talk
-	Functions	Function prototype	Chalk & Talk
	Prototype		Chalk & Talk
	Parameters	Formal parameters  Function call, call by reference.	Chalk & Talk
	Function Call		Chalk & Talk
3	Function Call	Call by value,  Recursive Functions	Chalk & Talk
Day 36	Recursion		Chalk & Talk
Day 37	Function Arguments	Arrays as function arguments	Chair of Tani
Day 38		Revision	*
1	Unit-8: Structures and Unions		Cl. II. 9. Talle
Day 39	Definition	Definition of structure and union,	Chalk & Talk
Day 40	Difference	Difference between structure and union	Chalk & Talk
	Declaration	Declaring structures unions.	Chalk & Talk
	Initialization	Initializing a structure.	
	Assignment	Structure assignment.	Chalk & Talk
	Arrays	Arrays of structures.	Chalk & Talk
	Unit-9 : Pointers		
1	Definition	Definition of pointer.	Chalk & Talk
	Delimition		GI II O TO III
Day 45		Address and dereferencing operators.	Chalk & Talk
Day 45 Day 46	Operator		Chalk & Talk  Chalk & Talk
Day 45 Day 46 Day 47	Operator Declaration	Pointer type declaration.	A STATE OF THE STA
Day 45 Day 46 Day 47 Day 48	Operator	Pointer type declaration.  Pointer assignment.	Chalk & Talk
Day 45 Day 46 Day 47 Day 48 Day 49	Operator Declaration Assignment	Pointer type declaration.	Chalk & Talk Chalk & Talk

Day 52		Revision	Chalk & Talk
	Unit-10 : File Handling		
Day 53	Definition	Definition of file, file opening modes, create a new file, open an existing file.	Chalk & Talk
Day 54	Read & Write Operation	Read/Write in a file, moving file pointer within an opened file.	Chalk & Talk
Day 55	Functions	Close an opened file, File handling functions - fopen(), fclose().	Chalk & Talk
Day 56	Functions	<pre>getc(), putc(), fprintf(), fscanf(), fgets(), fputs(), feof(), fseek(), rewind().</pre>	Chalk & Talk

	Name of Book	Author Name	Publication
	Let us C	Yashwant Kanetkar	BPB Publications
Prescribed Books	Programming with C	Byron S Gottfried	Tata McGraw Hill Publication
Reference	Programming with ANSI C	E. Balagurusamy	Tata McGraw Hill Publication

Faculty In Charge

Ritu Gulyani



# GOVERNMENT POLYTECHNIC FOR WOMEN KANDAGHAT, DISTT. SOLAN (HD) - 173215

# **DEPARTMENT OF COMPUTER ENGINEERING**

# **LESSON PLAN**

Academic Year	2022-23
Semester	ш
Subject Code	N2017-3-3.2
Subject Title	Internet Technology
Name of Faculty	Lalit Himral Lecturer(CE)
Semester Start & End Dates	01.09.2022-

## **Prerequisites:**

- > Knowledge of fundamentals concepts of computing
- Basic knowledge of computer networks and their concepts
- > Requires a practice hands on a general purpose programming Language

#### STUDY AND EVALUATION SCHEME

Sr. No.	Sr. Name of the Subject Th Pr		Internal Assessment		External Assessment				Total Marks			
NO.				Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	marks
3.2	Internet Technology	3	4	30	20	50	100	3	50	3	150	200

### **Course objectives:**

- > Providing students with the insight of Internet and related terminologies.
- > Students will be fully acquainted with the basic concepts of HTML, CSS, JavaScript and jQuery.

#### PROPOSED PLAN:

	I ROI OSEE I ELL		1		
Day	Unit & Topic of Discussion	Topic Details	Delivery Method		
Unit-1: Internet and Web Basics					
Day 1	Introduction	Internet and its applications,	Chalk & Talk		
Day 2	www	World Wide Web and its evolution, WWW vs Internet	Chalk & Talk		
Day 3	Web Terminology	web server, web page, web site (static & dynamic)	Chalk & Talk		
Day 4	Web Terminology	HTTP protocol, URL, Web Browsers, Search Engine, Proxy Server.	Chalk & Talk		
	Unit-2: Working with HT	ML5			
Day 5	Introduction to HTML	HTML coding conventions, HTML5 structural elements: <a href="https://elements.com/html">https://elements.com/html</a> , <a href="https://elements.com/html">https://element</a>	Chalk & Talk		

ay 6	Basics Tags/Elements of HTML	Head elements: <title>, &lt;meta&gt;, &lt;link&gt;;&lt;/th&gt;&lt;th&gt;Chalk &amp; Talk&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;-&lt;/td&gt;&lt;td&gt;Body Tags&lt;/td&gt;&lt;td&gt;body elements: &lt;h1&gt;&lt;h6&gt;, , &lt;hr&gt;&gt;,&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Body Tags&lt;/td&gt;&lt;td&gt;&lt;pre&gt;&lt;div&gt;, &lt;span&gt;, &lt;br/&gt;ooly elements: &lt;pre&gt;&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 9&lt;/td&gt;&lt;td&gt;Body Tags&lt;/td&gt;&lt;td&gt;&lt;img&gt;, &lt;iframe&gt;,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 10&lt;/td&gt;&lt;td&gt;Form tags&lt;/td&gt;&lt;td&gt;&lt;form&gt;; semantic&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 11&lt;/td&gt;&lt;td&gt;Semantic elements&lt;/td&gt;&lt;td&gt;elements:&lt;article&gt;&lt;aside&gt;,&lt;details&gt;&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 12&lt;/td&gt;&lt;td&gt;Layout tags&lt;/td&gt;&lt;td&gt;&lt;figure&gt;,&lt;footer&gt;, &lt;header&gt;,&lt;main&gt;, &lt;mark&gt;, &lt;nav&gt;,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 13&lt;/td&gt;&lt;td&gt;Semantic elements&lt;/td&gt;&lt;td&gt;&lt;section&gt;,&lt;summary&gt;, &lt;time&gt;;&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 14&lt;/td&gt;&lt;td&gt;HTML attributes&lt;/td&gt;&lt;td&gt;HTML attributes: accesskey, class, data-*, id, style, tabindex, title&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Unit-3: HTML Lists and Ta&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 15&lt;/td&gt;&lt;td&gt;List Tags&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;PPT&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;List Tags&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;P&lt;b&gt;P&lt;/b&gt;T&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Table Tags&lt;/td&gt;&lt;td&gt;Table elements: , &lt;thead&gt;, ,&lt;/td&gt;&lt;td&gt;PPT&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;., -,&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;tfoot&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 18&lt;/td&gt;&lt;td&gt;Table Tags&lt;/td&gt;&lt;td&gt;, , ; using rowspan and colspan attributes.&lt;/td&gt;&lt;td&gt;P&lt;b&gt;P&lt;/b&gt;T&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Unit-4: HTML Forms&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 19&lt;/td&gt;&lt;td&gt;Form Tags&lt;/td&gt;&lt;td&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;pre&gt;&lt;/td&gt;&lt;td&gt;Chalk &amp;Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 20&lt;/td&gt;&lt;td&gt;Form tags&lt;/td&gt;&lt;td&gt;&lt;textarea&gt;, &lt;button&gt;, &lt;datalist&gt;,&lt;br&gt;&lt;fieldset&gt;&lt;/td&gt;&lt;td&gt;Ch&lt;b&gt;alk &amp;Talk&lt;/b&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 21&lt;/td&gt;&lt;td&gt;Form Tags&lt;/td&gt;&lt;td&gt;Tabor, Togona, Sacrino, Sacrino&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Form Attributes&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Unit-5: Cascaded Style She&lt;/td&gt;&lt;td&gt;et (CSS)&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 23&lt;/td&gt;&lt;td&gt;Introduction to CSS and their type&lt;/td&gt;&lt;td&gt;es CSS types: inline, internal and external;&lt;/td&gt;&lt;td&gt;PPT&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;CSS Selectors&lt;/td&gt;&lt;td&gt;CSS rule, Selectors, CSS box model&lt;/td&gt;&lt;td&gt;P&lt;b&gt;P&lt;/b&gt;T&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 25&lt;/td&gt;&lt;td&gt;With examples&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 26&lt;/td&gt;&lt;td&gt;CSS Attributes&lt;/td&gt;&lt;td&gt;CSS attributes: border, margin, padding,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 27&lt;/td&gt;&lt;td&gt;7 CSS Attributes&lt;/td&gt;&lt;td&gt;height, width, color, text-align, border-&lt;br&gt;collapse, border-spacing&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 28&lt;/td&gt;&lt;td&gt;8 CSS Attributes&lt;/td&gt;&lt;td&gt;background-color, background-image,&lt;br&gt;background-repeat, background-attachment,&lt;br&gt;background-position&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 29&lt;/td&gt;&lt;td&gt;9 CSS Attributes&lt;/td&gt;&lt;td&gt;Text decoration, text-transform, letter-&lt;br&gt;spacing,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 30&lt;/td&gt;&lt;td&gt;O CSS Attributes&lt;/td&gt;&lt;td&gt;word-spacing, font-family, font-style, font-size, font-variant&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;1 CSS Attributes&lt;/td&gt;&lt;td&gt;position, display, float, list styles, table styles,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;2 CSS pseudo classes&lt;/td&gt;&lt;td&gt;pseudo classes&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Unit-6: JavaScript&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;C. U. O. T. 11&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;3 Introduction&lt;/td&gt;&lt;td&gt;JavaScript overview, &lt;script&gt; element, variable, lifetime and scope of variables&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;4 Building Blocks of JavaScript&lt;/td&gt;&lt;td&gt;operators, control statements: ifelse,&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;10.1&lt;/td&gt;&lt;td&gt;switchcase; iteration: for, while, dowhile;&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Day 3&lt;/td&gt;&lt;td&gt;6 Linking .js file&lt;/td&gt;&lt;td&gt;linking external JavaScript file with an HTML document&lt;/td&gt;&lt;td&gt;Chalk &amp; Talk&lt;/td&gt;&lt;/tr&gt;&lt;/tbody&gt;&lt;/table&gt;</title>
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Day 37	Arrays	manipulating HTML DOM tree with	Chalk & Talk
-	- ,	JavaScript, arrays,	
Day 38	OOPs concepts in JavaSrcipt	object-oriented programming in JavaScript,	Chalk & Talk
Day 39	Functions	built-in javascript functions, user-defind	Chalk & Talk
•		functions.	
	Unit-7: jQuery		
Day 40	Introduction	Need of jQuery, Adding jQuery to a Webpage-using CDN or Local Copy	Chalk & Talk
Day 41	jQuery Effects	¡Query Selectors, JQuery Effects- hide(), show(), toggle(), fadeIn(), fadeout(), fadeTo(), fadeToggle(), Animate()	PPT
Day 42	Query Events	Blur(), click(), focus(), ready(), load(), on(), off().	PPT

	Name of Book	Author Name	Publication
n	HTML & CSS: The Complete Reference	Thomas A. Powell, Tata McGraw Hill	Tata McGraw Hill Publication
Prescribed Books	JavaScript: The Definitive Guide	David Flanagan	O'Reilly Media Inc
	HTML 5 Black Book		Kogent Learning Solutions Inc.
Reference	Web Design with HTML, CSS, JavaScript and jQuery Set	John Duckett	Wiley Publication
Books	Web Programming with HTML5, CSS and JavaScript	John Dean	Jones and Bartlett Publishers

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# GOVERNMENT POLYTECHNIC FOR WOMEN KANDAGHAT, DISTT. SOLAN (HP) - 173215

# DEPARTMENT OF COMPUTER ENGINEERING LESSON PLAN

Academic Year	2022-23	
Semester	III	
Subject Code	N2017-3.1	
Subject Title	Digital Systems and Applications	
Name of Faculty	Nirlep Rana(CSE)	
Semester Start & End Dates	01.09.2022- 20.12.2022	

# STUDY AND EVALUATION SCHEME

Sr. Name of the		Th	Th Pr		Internal Assessment			External Assessment				Total
	Subject			Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	Marks
3.1	* Digital Systems and Applications	4	2	30	20	50	100	3	50	3	150	200

Day	Unit & Topic of Discussion	Topic objectives	Delivery Method
	Unit-1: Introduction to Digital System		Method
Day 1	Analog Systems	Analog Signal and Graphical Representation of Analog Signals, Analog Systems, Examples of Analog Systems, Disadvantage of Analog Systems.	Chalk & Talk
Day 2	Digital Systems	Digital Signal and Graphical Representation of Digital Signals, Digital Systems, Examples of the Digital System Advantage and Limitation of Digital Systems Comparison of Analog and Digital Systems	1
Day 3	A/D and D/A convertor	Introduction to Analog to Digital Convertor and Digital to Analog Convertor.	Chalk & Talk .
	Unit-2: Digital Number System and the	ir Conversion	
Day 4	Binary Number System	Binary to Decimal Conversion, Decimal to Binary Conversion.	Chalk & Talk
Day 5	Signed Binary Numbers	Sign Magnitude Representation, One's Compliment Representation	Chalk & Talk
Day 6	Signed Binary Numbers	Two's Compliment Representation	Chalk & Talk
Day 7	Introduction to Octal Number System	Characteristics, Octal to Decimal Conversion,	Chalk & Talk
Day 8	Octal Number System	Decimal to Octal Conversion,	Chalk & Talk
Day 9	Octal Number System	Octal to Binary Conversion, Binary to Octal Conversion	Chalk & Talk

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	Hexadecimal Number System	Characteristics, Hexadecimal to Decimal Conversion	Chalk & Talk
Day 11	Hexadecimal Number System	Decimal to Hexadecimal Conversion	Chalk & Talk
Day12	Hexadecimal Number System	Hexadecimal to Binary Conversion	Chalk & Talk
Day13	Hexadecimal Number System	Binary to Hexadecimal Conversion.	Chalk & Talk
Day14	Hexadecimal Number System	Revision	Chalk & Talk
Day15	Hexadecimal Number System	Revision	Chalk & Talk
	Unit-3: Binary Arithmetic	account of the second of the s	Chark & Talk
Day 16	Binary Arithmetic	Binary Addition, Binary Subtraction	Chalk & Talk
Day 17	Binary Arithmetic	Binary Multiplication, Binary Division	Chalk & Talk
Day 18	18 Binary Arithmetic Addition and Subtraction using Two's Compliment Representation		Chalk & Talk
Day 19	Octal Arithmetic	Octal Addition and Octal Subtraction	Chalk & Talk
Day 20	Hexadecimal Arithmetic Unit-4: Boolean Algebra and Logic Gates	Hexadecimal Addition and Hexadecimal Subtraction.	Chalk & Talk
Day 21	Boolean Algebra	Axioms of Boolean Algebra	
Day 22	Boolean Laws	Commutative law, Associative law, Distributive law, AND law, OR law and INVERSION law	Chalk & Talk Chalk & Talk
Day 23	De Morgan's Theorems.	De Morgan's Theorems.	
Day 24	Logic Gates	AND Operation, OR Operation, NOT Operation ,NAND Operation, NOR Operation, Ex-OR Operation	Chalk & Talk Chalk & Talk
Day 25	Universal gates	Universality of NAND and NOR Gates	Chall o Thu
	Unit-5: Simplification of Boolean Function	ns	Chalk & Talk
Day 26	Boolean Function	Definition, Truth Table Formation, Standard	Chalk & Talk
	Boolean Function	Karnaugh-map Representation for Boolean Functions	Chalk & Talk
	Simplification of a Boolean Function	Simplification of a Boolean Function using Karnaughmap (Up to three Variables),	Chalk & Talk
Day 29	Simplification of a Boolean Function	Minimization of Boolean Function specified in Minterm, Maxterm and Truth Table	Chalk & Talk
Day 30		Revision	Chalk & Talk
	Unit-6: Combinational Circuits		Chark & Talk
Day 31	Half Adder Circuit	Definition, Block diagram, Truth Table and Circuit Diagram	Chalk & Talk
Day 32	Full Adder Circuit	Definition, Block diagram, Truth Table and Circuit Diagram	Chalk & Talk
Day 33	Half Subtractor Circuit	Definition, Block diagram, Truth Table and Circuit Diagram	Chalk & Talk
Day 34	Full Subtractor Circuit	Definition, Block diagram, Truth Table and Circuit	

Day 35	Multiplexers Circuit	Definition, Block diagram, Truth Table, 2:1 Multiplexer, 4:1 Multiplexer, 16:1 Multiplexer	Chalk & Talk
Day 36	Demandplexers entent	Definition, Block diagram, Truth Table, 2:1 Demultiplexer, 4:1 Demultiplexer and 16:1 Demultiplexer	Chalk & Talk
	Encoder Circuit	Definition, Block diagram, Truth Table and Circuit Diagram, Priority Encoder	Chalk & Talk
Day 38	Decoder Circuit	Definition, Block diagram, Truth Table and Circuit Diagram, 2 to 4 Line Decoder.	Chalk & Talk
	Unit-7 : Flip Flops		
	S-R Flip Flop	Definition, Block Diagram, Circuit Diagram, Truth Table and Operation.	Chalk & Talk
Day 40	Master Slave JK Flip Flop	Definition, Block Diagram, Circuit Diagram	Chalk & Talk
Day 41	Master Slave JK Flip Flop	Truth Table and Operation.	Chalk & Talk
Day 42	Delay (D) Flip Flop	Definition, Block Diagram, Circuit Diagram, Truth Table and Operation.	Chalk & Talk
	Toggle (T) Flip Flop	Definition, Block Diagram, Circuit Diagram, Truth Table and Operation.	Chalk & Talk
	Unit-8: Semiconductor Memory Devices	and operation.	
Day 44	Random Access memory (RAM)	Characteristics and Times (CDAM)	PPT
	Read Only memory (ROM)	Characteristics and Types (SRAM and DRAM) Characteristics and Types (PROM, EPROM and EEPROM)	PPT
Day 46	Flash Memory	Characteristics and Types :Server-Flash Memory, All-Flash Array	PPT
Day 47	Flash Memory	Traditional Flash Storage and Hybrid Array.	PPT
Day 48		Revision	Cl. II c =
			Chalk & Talk

Name of Book	Author Name	Publication
Modern Digital Electronics	R.P. Jain	Tata McGraw Hill Publication
Digital Electronics Principles, Devices & Applications	Anil K. Maini	Wiley Publication
2000 Solved Problems in Digital Electronics	S.P. Bali	Tata McGraw Hill Sigma Series
	Modern Digital Electronics  Digital Electronics Principles, Devices & Applications  2000 Solved Problems in Digital	Modern Digital Electronics  R.P. Jain  Digital Electronics Principles, Devices & Applications  Anil K. Maini  2000 Solved Problems in Digital

Faculty in Charge

Nirlep Rana

HOD



### GOVERNMENT POLYTECHNIC FOR WOMEN

KANDAGHAT, DISTT. SOLAN (HP) - 173215

## DEPARTMENT OF COMPUTER ENGINEERING **LESSON PLAN**

Academic Year	2022-23 ชาติกุสเรอากุ	OAV 10 Types
Semester	III.	71 yet
Subject Code	N2017-3-3.3	
Subject Title	Operating Systems	Errorio gardeonos, o e ast
Name of Faculty	Navdeep Sahni Lecturer(CE)	171.760
Semester Start & End Dates	01.09.2022 - 20.12.2022	OT was

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Sr. Name of the Subject	Th	Pr	341	Interi ssessi	DE VINGI	9 Еж	ternal .	Assess	sment	:	Tot	Cur
NO. 1			Th	Pr	Total	- <b>Th</b> -	Hrs beed	<b>Pr</b>	Hrs	Total	Mar	Marks
3.3.3 Operating Systems	or poal	4	30	20	50	100	3	50	103,0	150	noM	200

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chedding Algorithms

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Day	Unit & Topic of Discussion	exclusion, Held algorithm and preemption and	Delivery Method
	Unit-1: Introduction to operating	system deathers	hilbrand 18 va
Day 1	Introduction	Definition of Operating System. Evolution of operating systems - simple batch systems	Chalk & Talk
Day 2	Evolution	multiprogrammed batch systems, timesharing systems	Chalk & Talk
Day 3	Functions	Functions of an operating system.	Chalk & Talk
Day 4	Types of OS garged Altr	Single user and multiuser operating systems. Open-source and closed-source operating systems.	ay 37 Segm
Ale I	Unit-2: Process Overview		1.6 30
Day 5	Introduction	Definition of process, process states	Chalk & Talk
Day 6	Process Life cycle	process life cycle,	Chalk & Talk
Day 7	PCB	Process Control Block (PCB)	Chalk & Talk
Day 8	Process scheduling	Process Scheduling queues,	Chalk & Talk
Day 9	conjustions, Kitosik	December	Chalk & Talk
Day 10	1951.	Schedulers (short term, medium term and long term).	Chalk & Talk
Day 11	Working of SEO	Dispatcher automit vio	Chalk & Talk

Day 12	Context Switch	Context Switch.	Chalk
	Unit 2 . CDU Schoduling	TORY TA MAR TOPIC PARTAGRAM	46
Day 12	Unit-3: CPU Scheduling	DEPARTMENT OF COMPLETE LINES	Chalk & Talk
2 dy 12	277 KPALLSTY	CPU Scheduler	-alk
	CPU Scheduler	of o benediate	
Day 13	Types	preemptive / ESSEM	Chalk & Tall
	The second secon	(2)	in the same of
Day 15		non-preemptive scheduling	Chalk & Talk
Day 16	Scheduling criteria	Response time.	Chalk & Talk
Day 17		CPU utilization	Chalk & Talk
Day 18		Throughput	Chalk & Talk
Day 19		Turnaround time	Chalk & Talk
Day 20		Waiting time	Chalk & Talk
	Scheduling Algorithms	First-Come-First-Serve	Chalk & Talk
Day 22		Shortest-Job-First	Chalk & Talk
Day 23	rrai Assessassus		Chalk & Talk
Day 24	1.2	Round-Robin	Chalk & Talk
	Unit-4: Introduction to Dea	176	
Day 25	Normal mode of operation	Normal mode of operation - Request-Use-	Chalk & Talk
		Release sequence	a y nill thou of the s.
Day 26	Definition	Definition of deadlock, Deadlock	Chalk & Talk
			i lo looidue
Day 27	Necessary Conditions	Necessary and sufficient conditions - Mutual	Chalk & Talk
Day 28		evolucion Hold and wait No	Challe & Talle
Day 29	N.V.	preemption and Circular wait	Discussion
Day 30	Introduction to methods for han	dling Introduction to methods for handling	Chalk & Talk
Day 31	deadlocks	deadlocks.	Videos
Day 32	ALSE A	and the second section	Chalk & Talk
	Unit-5: Memory Managem	A CONTRACTOR OF THE CONTRACTOR	3 7
-	partitioning	Fixed partitioning	Chalk &Talk
	A RESIDENCE OF THE PROPERTY OF		
	roma systems	dynamic partitioning	Chalk &Talk
ay 35 F	Fragmentation		Chalk & Talk Chalk & Talk
ay 35 F ay 36 F	Fragmentation paging	memory fragmentation	
ay 35 F ay 36 p ay 37 S	Fragmentation paging Segmentation	memory fragmentation	Chalk & Talk
ay 35 F ay 36 p ay 37 S	Fragmentation paging	memory fragmentation	Chalk & Talk Chalk & Talk
ay 35 F ay 36 p ay 37 S ay 38 V	Fragmentation paging Segmentation	memory fragmentation simple paging Simple segmentation virtual memory with paging	Chalk & Talk Chalk & Talk Chalk & Talk
ay 35 F ay 36 p ay 37 S ay 38 V ay 39	Fragmentation paging Segmentation Firtual Memory	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation	Chalk & Talk Chalk & Talk Chalk & Talk Chalk & Talk
ay 35 F ay 36 p ay 37 S ay 38 V ay 39 ay 40	Fragmentation paging Segmentation	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault	Chalk & Talk
ay 35 F ay 36 p ay 37 S ay 38 V ay 39 ay 40 ay 41	Fragmentation Desired Company	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing	Chalk & Talk
Day 35 F Day 36 F Day 37 S Day 38 V Day 39 Day 40 Day 41 Day 42 P	Fragmentation Description Desc	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO	Chalk & Talk
Day 35 F Day 36 F Day 37 S Day 38 V Day 39 Day 40 Day 41 Day 42 P Day 43 Day 35 Day 35 Day 35 Day 36	Fragmentation Desired Company	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal	Chalk & Talk
ay 35 F ay 36 p ay 37 S ay 38 V ay 39 ay 40 ay 41 ay 42 P ay 43	Fragmentation Desired Segmentation Virtual Memory Desired Segmentation Virtual Memory Desired Segmentation	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal LRU	Chalk & Talk
Day 35 F Day 36 F Day 37 S Day 38 V Day 39 Day 40 Day 41 Day 42 P Day 42 P Day 43 Day 44 Day	Fragmentation Description Desc	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal LRU	Chalk & Talk
Day 35 F Day 36 F Day 37 S Day 38 V Day 39 Day 40 Day 41 Day 42 P Day 43 Day 44	Fragmentation Desired Segmentation Virtual Memory  age replacement policies  Unit-6: Storage Management	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal LRU file attributes, file operations,	Chalk & Talk
Day 35 F Day 36 P Day 37 S Day 38 V Day 39 Day 40 Day 41 Day 42 P Day 43 Day 44 Day 45 Find Philappin Phil	Fragmentation Deaging Deagementation Virtual Memory Deagement policies Unit-6: Storage Management Le concept -	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal LRU file attributes, file operations, file types	Chalk & Talk
Day 36 property 37 start and 38 property 39 property 40 property 41 property 42 property 43 property 43 property 45 property 46 property 4	Fragmentation Desired Segmentation Virtual Memory  age replacement policies  Unit-6: Storage Management	memory fragmentation simple paging Simple segmentation virtual memory with paging virtual memory with segmentation page fault thrashing FIFO Optimal LRU file attributes, file operations,	Chalk & Talk

Disk Storage Access ways	two-level directory, treestructured directories.  Host-Attached Storage	Chalk & Talk
ay 52	Storage Area Network	Discussion
	Network-Attached	Chalk & Talk
Day 53 Disk scheduling -	Storage	Chalk & Talk
2 ay 54	SSTF SCAN	Chalk & Talk
Day 55		Chalk & Talk
Day 56	C-SCAN	Chalk & Talk
	FCFS	Chalk & Talk

	Name of Book	Author Name	Publication
Prescribed Books	Operating System Concepts	Abraham Silberschatz, Peter B. Galvin, and Gerg Gagne	Wiley India Pvt. Ltd
Reference Books	Operating Systems - Internals and Design Principles	William Stallings	Pearson Edn.

Mandeel Sahni