

Lesson Plan

Name of the Faculty : Dharamveer Saini
Discipline : Computer Engineering
Semester : 5th
Subject : SOFTWARE ENGINEERING

Lesson Plan duration :15 weeks
Work load per week :Lecture – 03

Week	Theory	
	Lecture Day	Topic (Including assessment/test)
1 st	1 st	1. Introduction to Software Engineering (6 hrs.) Introduction, Programme v/s Software
	2 nd	Products Emergence of Software Engineering- Early Computer Programming,
	3 rd	High- level Language Programming, Control flow-based Design
2 nd	4 th	Data Structure Oriented Design,
	5 th	Object Oriented Design
	6 th	Software Life Cycle Models
3 rd	7 th	Requirement of Life Cycle Model, Classic Waterfall Model,
	8 th	Prototyping Model, Evolutionary Model
	9 th	Requirement of Life Cycle Model, Classic Waterfall Model,
4 th	10 th	Prototyping Model, Evolutionary Model
	11 th	Spiral Model
		Comparison of different Life Cycle Models
	12 th	Software Planning (
5 th	13 th	Responsibilities of Software
	14 th	Project Manager - Metrics for Project Size Estimation-
	15 th	LOC(Lines of Code), Function Point Metric
6 th	16 th	Project estimation Techniques
	17 th	Using COCOMO Model,
	18 th	Halstead's Software Science
7 th	19 th	. Requirement Analysis and Specification
	20 th	Requirement gathering and Analysis

	21st	Software Requirement Specifications (SRS)
8th	22nd	Formal Specification Technique
	23rd	Characteristics of good SRS
	24th	Software Design and Implementation
9th	25th	Characteristics and features of good Software
	26th	Design Cohesion and Coupling
	27th	Software design Approaches
10th	28th	Function Oriented Design,
	29th	Object Oriented Design, Structured Coding Techniques
	30st	Coding Styles, documentation
11th	31nd	Software Testing Concept of Testing
	32rd	Verification v/s Validations
	33th	Unit Testing, Blackbox Testing
12th	34th	White Box Testing
	35th	Integration testing
	36th	System testing
13th	37th	. Software Quality
	38th	and Maintenance
	39th	Introduction to Capability Maturity model
14th	40th	ISO9000
	41th	Six Sigma
	42th	Configuration Management
15th	43th	Revision
	44th	revision
	45th	revision

Name of the Faculty : Ms. Madhu Bala
Discipline : Computer Engg.
Semester : 5th
Subject : **Computer Networks**
Lesson Plan Duration : 15 weeks

Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-03

Week	Theory		Practical							
	Lecture day	Topic (including assignment / test)	Practical Day	Topic						
1 st	1 st	Networks Basics	1 st	Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network.						
	2 nd	Concept of network - Models of network computing								
	3 rd	- Networking models								
2 nd	4 th	- Peer-to-peer Network			2 nd	Recognition and use of various types of connectors RJ-45, RJ-11, BNC and SCST				
	5 th	Server Client Network - Network Services								
	6 th	Concept of switching - Switching Techniques								
3 rd	7 th	OSI Model	2 nd	Recognition of network devices (Switches, Hub, Routers of access points for Wi-Fi)						
	8 th	OSI Reference Model								
	9 th	OSI Reference Model								
4 th	10 th	OSI Reference Model			2 nd	Making of cross cable and straight cable				
	11 th	OSI Reference Model								
	12 th	OSI Reference Model								
5 th	13 th	OSI Reference Model					2 nd	Making of cross cable and straight cable		
	14 th	Function of various layers in OSI Reference Model								
	15 th	Function of various layers in OSI Reference Model								
6 th	16 th	- Function of various layers in OSI Reference Model								
	17 th	- Function of various layers in OSI Reference Model								

Week	Theory		Practical			
	Lecture day	Topic (including assignment / test)	Practical Day	Topic		
	18 th	- Function of various layers in OSI Reference Model	3 rd	Install and configure a network interface card in a workstation Identify the IP address of a workstation and the class of the address and configure the IP Address on a workstation		
7 th	19 th	Introduction to TCP/IP	4 th	Managing user accounts in windows and LINUX		
	20 th	Concept of physical and logical addressing - IPV4 addressers- Address space, .				
	21 st	Notations, Classful Addressing, Classless Addressing, Network Address Translation				
8 th	22 nd	- Different classes of IP addressing, special IP address				
	23 rd	- Different classes of IP addressing, special IP address				
	24 th	- Sub netting and super netting				
9 th	25 th	- Sub netting and super netting				
	26 th	- Loop back concept - IPV4 and IPV6 packet Format				
	27 th	- Loop back concept - IPV4 and IPV6 packet Format				
10 th	28 th	Network Architecture			5 th	Study and Demonstration of sub netting of IP address Use of Netstat and its options. Connectivity troubleshooting using PING, IPCONFIG, IFCONFIG
	29 th	Ethernet Specification and Standardization:				
	30 th	10 Mbps (Traditional Ethernet),				
11 th	31 st	10 Mbps (Fast Ethernet) and 1000 Mbps (Gigabit Ethernet), Introduction to Media)				
	32 nd	Connectivity (Leased lines, ISDN, PSTN, RF,				
	33 rd	DSL, VSAT, Optical and IPLC				
12 th	34 th	Connectivity devices				

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
	35 th	Network connectivity Devices 100 - NICs - Hubs, bridges - Repeaters, switches - Routers - Gateways		
	36 th	Multiplexers - Modems		
13 th	37 th	Network Trouble Shooting Techniques	6 th	Installation of Network Operating System (NOS) Visit to nearby industry for latest networking techniques
	38 th	Trouble Shooting process - Trouble Shooting Tools: , ,		
	39 th	PING,IPCONFIG		
14 th	40 th	PING,IPCONFIG		
	41 st	IFCONFIG, NETSTAT		
	42 nd	TRACEROOT, Wiresharp / Dsniffer/ Pcop		
15 th	43 rd	IEEE 802.11- Architecture		
	44 th	IEEE 802.11- Architecture		
	45 th	Bluetooth- Architecture		

Name of the faculty : Amrita saini

Discipline : Computer Engg.

Semester : 5th

Subject : Programming using Python

Lesson Plan Duration: 15 weeks

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1st	1 th	Brief History of Python Python Versions	1	Getting started with Python and IDLE in interactive and batch modes
	2 nd	Installing Python Environment Variables Executing Python from the Command Line IDLE	2	Implementation of string methods Lower Count Replace
	3 rd	Editing Python Files Python Documentation		
2nd	4 th	Getting Help Dynamic Types Python Reserved Words	3	Create a string containing at least five words and store it in a variable. 1. Print out the string. 2. Convert the string to a list of words using the string split method.
	5 th	Naming Conventions Basic Syntax Comments String Value	4	Sort the list into reverse alphabetical order using some of the list methods (you might need to use dir(list) or help(list) to find appropriate methods).
	6 th	String Methods The format Method String Operators Numeric Data Types		
3rd	7 th	Conversion Functions Simple Output Simple Input The % Method	5	Print out the sorted, reversed list of words.

	8 th	The % Method The print Function Indenting Requirements The if Statement	6	Write a program that determines whether the number is prime.
	9 th	Relational and Logical Operators Bit Wise Operators		
4th	10 th	The while Loop Break and continue	7	Find all numbers which are multiple of 17, but not the multiple of 5, between 2000 and 2500?
	11 th	The for Loop Introduction Lists Tuples	8	Swap two integer numbers using a temporary variable. Repeat the exercise using the code format: a, b = b, a. Verify your results in both the cases.
	12 th	Sets Dictionaries Sorting Dictionaries Copying Collections Summary		
5th	13 th	Introduction Defining Your Own Functions Parameters	9	Programming exercises on formatting input/output using printf and scanf and their return type values
	14 th	Function Documentation Keyword and Optional Parameters	10	Programming exercises on formatting input/output using printf and scanf and their return type values
	15 th	Passing Collections to a Function Variable Number of Arguments Scope Functions - "First Class Citizens"		
6th	16 th	Passing Functions to a Function map filter	11	Find the largest of n numbers, using a user defined function largest().
	17 th	Mapping Functions in a Dictionary Lambda Inner Functions Closures	12	Write a function myReverse() which receives a string as an input and return the reverse of the string.

	18 th	Modules Standard Modules - sys Standard Modules - math		
7th	19 th	Standard Modules - time The dir Function Exceptions Errors Runtime Errors	13	. Check if a given string is palindrome or not.
	20 th		14	WAP to convert Celsius to Fahrenheit
	21 st	Copying Collections		
8th	22 nd	Summary	15	Find the ASCII value of charades
	23 rd	Functions Introduction	16	WAP for simple calculator

	24 th	Variable Number of Arguments Scope Functions - "First Class Citizens" Passing Functions to a Function		
9th	25 th	Function Documentation Keyword and Optional Parameters	17	WAP to convert Celsius to Fahrenheit
	26 th	Passing Collections to a Function	18	Implementation of string methods LowerCount Replace
	27 th			
10th	28 th	Filter Mapping Functions in a Dictionary	19	Sort the list into reverse alphabetical order using some of the list methods (you might need to use dir(list) or help(list) to find appropriate methods).
	29 th	Modules Standard Modules - sys	20	Write a program that determines whether the number is prime.
	30 th	Standard Modules - math Standard Modules - time The dir Function		
11th	31 st	Exceptions Errors	21	Write a program that determines whether the number is prime.
	32 nd	Runtime Errors The Exception Model Exception Hierarchy	22	Find all numbers which are multiple of 17, but not the multiple of 5, between 2000 and 2500?

	33 th	Handling Multiple Exceptions Raise Assert		
12th	34 th	Input and Output Introduction Data Streams Creating Your Own Data Streams	23	Swap two integer numbers using a temporary variable. Repeat the exercise using the code format: a, b = b, a. Verify your results in both the cases.
	35 th	Access Modes Writing Data to a File Reading Data From a File	24	Find the largest of n numbers, using a user defined function largest().
	36 th	Additional File Methods Using Pipes as Data Streams Handling IO Exceptions		
13th	37 th	Classes in Python Principles of Object Orientation Creating Classes	25	Write a function myReverse() which receives a string as an input and returns the reverse of the string.
	38 th	Instance Methods File Organization Special Methods	26	Check if a given string is palindrome or not.
	39 th	Inheritance Polymorphism		
14th	40 th	Regular Expressions Introduction	27	Check if a given string is palindrome or not.
	41 st	Simple Character Matches Special Characters Character Classes	28	Check if a given string is palindrome or not.

	42 th	Quantifiers The Dot Character Greedy Matches		
15th	43 rd	Grouping Matching at Beginning or End Match Objects	29	WAP to convert Celsius to Fahrenheit
	44 th	Substituting Splitting a String Compiling Regular Expressions Flags	30	Revision
	45 th	Revision		

FACULTY NAME : -VirenderGupta
DISCIPLINE : - ComputerEngineering
SEMESTER : -5TH
SUBJECT : WebDevelopmentusing PHP
Lesson Plan Duration: - 15 weeks

Work Load (Lecture/Practical) per week (In hours): Lecture 03, Practical -06

Week	Theory		Practical	
	Lecture Day	Topic (Including assignment/test)	Practical	Topic
1 st	1	Introduction to HTML 5	1st	Design PHP based webpages using correct PHP, CSS, and XHTML syntax, structure.
	2	Introduction to CSS 3		
	3	Basic structure of HTML, designing a web page		
2 nd	4	inserting links images, horizontal rules, comments		
	5	Formatting text, title, headings		
	6	colors, fonts, sizes, simple tables		
3 rd	7	Forms, HTML tags, hyperlinks	2 nd	Create Web forms and pages that properly use HTTP GET and POST protocol as appropriate.
	8	adding graphics and images, image maps, image files		
	9	using tables, forms		
4 th	10	Using Style sheets and frames, Floating of web site/pages.	3 rd	Design SQL language within MySQL and PHP to access and manipulate databases.
	11	Revision		
	12	Revision/Test		
5 th	13	Introduction to PHP		
	14	How PHP Works		
	15	The php.ini File		
6 th	16	Basic PHP Syntax,	4 th	Install and configure both PHP and MySQL.
	17	PHP variables, statements		
	18	operators		
7 th	19	decision making	5 th	Create PHP code that utilizes the commonly used API library functions built in to PHP.
	20	loops		
	21	arrays		
8 th	22	Strings, forms	6 th	Design and create a complete web site that demonstrates good PHP/MySQL client/server design.
	23	get and post methods		
	24	functions		
9 th	25	Revision		
	26	Introduction to cookies		
	27	storage of cookies at client side		
10 th	28	Using information of cookies	7 th	To store a cookie using
	29	Creating single or multiple server-side		

			PHP on client side.
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		sessions		
	30	Timeout in sessions		
11 th	31	Event management in PHP	9 th	Design website using wordpres s or Joomla.
	32	Revision		
	33	Introduction to content management systems based on PHP- Part 1		
12 th	34	Introduction to content management systems based on PHP- Part 2		
	35	Revision/Test		
	36	Introduction to MySQL		
13 th	37	connecting to MySQL database using PHP		
	38	Creation of MySQL data using PHP – Part 1		
	39	Creation of MySQL data using PHP – Part 2		
14 th	40	Insertion of MySQL data using PHP – Part 1		Revision
	41	Insertion of MySQL data using PHP – Part 1		
	42	deletion of MySQL data using PHP.		
15 th	43	retrieval of MySQL data using PHP.		Revision
	44	Revision		
	45	Revision/test		

Name of the Faculty : Madhu Bala
Department : Computer Engineering
Semester : 5th
Subject : Cloud computing
Lesson Plan Duration : 15weeks

****Work load (Lecture / Practical) per week (in hours): Lectures-03, practical -03**

Week	Theory		Practical	
	Lecture day	Topic (Including assignment / test)	Practical Day	Top ic
1st	1 st	I. Introduction to Cloud Computing	1st	Introduction to Cloud Vendors
	2 nd	Overview of Cloud Computing		
	3 rd	Evolution of Cloud computing		
2nd	4 th	Characteristics of Cloud Computing	2nd	Introduction to Cloud Vendors
	5 th	Applications of Cloud Comp.		
	6 th	Benefits of Cloud Comp.		
3rd	7 th	Challenges of Cloud Comp.	3rd	Setting up Virtualization usingVirtualbox/ VMWare Hypervisor
	8 th	Seminar of 1st Chapter		
	9 th	II Service and Deployment Models Service Models : Overview		
4th	10 th	Infrastructure As A Service	4th	Setting up Virtualization usingVirtualbox/ VMWare Hypervisor
	11 th	Platform As A Service		
	12 th	Software As A Service		
5th	13 th	Cloud Computing Deployment Models:Overview	5th	Setting up Virtualization usingVirtualbox/ VMWare Hypervisor
	14 th	Private Cloud		
	15 th	Public Cloud		
6th	16 th	Hybrid Cloud	6th	Introduction to OwnCloud
	17 th	Community Cloud		
	18 th	Major Cloud Service Providers		
7th	19 th	Seminar of 2 nd chapter	7th	Installation and configuration of OwnCloudsoftware for SaaS
	20 th	3. Service Level Agreement Management : Overview of SLA		
	21 st	Types of SLA		
8th	22 nd	Types of SLA	8th	Installation and

	23 rd	SLA lifecycle		configuration of OwnCloud software for SaaS
	24 th	SLA management Process		
9th	25 th	Seminar and 1 st Sessional	9th	Installation and configuration of OwnCloud software for SaaS
	26 th	4. Virtualization Concepts : Overview		
	27 th	Types of Virtualization		
10th	28 th	Benefits of Virtualization	10th	Accessing Microsoft AZURE cloud services
	29 th	Hypervisors		
	30th	5. Cloud Security: Overview		
11th	31 st	Infrastructure Security	11th	Accessing Microsoft AZURE cloud services
	32 nd	Data Security		
	33 rd	Privacy Issues		
12th	34 th	Legal issues	12th	Accessing Microsoft AZURE cloud services
	35 th	Seminar and 2 nd sessional		
	36 th	6. Cloud Storage: Overview		
13th	37 th	Storage As A Service	13th	Cloud Simulation Software Introduction: CloudSim
	38 th	Storage As A Service: Benefits		
	39 th	Storage As A Service: Challenges		
14th	40 th	SANs	14th	Cloud Simulation Software Introduction: CloudSim
	41 st	7. Scheduling in Cloud : Overview of Scheduling Problem		
	42 nd	Different types of Scheduling		
15th	43 rd	Scheduling for dependent & independent tasks.	15th	Cloud Simulation Software Introduction: CloudSim
	44 th	Static vs. Dynamic Scheduling		
	45 th	Seminar and 3 rd Sessional		

Name of the Faculty : Munish Gupta

Department : Computer Engineering

Semester :3rd

Subject : Programming in C

LessonPlanDuration : 16 weeks (from1-Sept, 2023 to 15-Dec-2023)

**Work load (Lecture / Practical) per week(in hours): Lectures-03, practicals -08

Week	Theory		Practical	
	Lecture day	Topic(Including assignment /test)	Practical Day	Topic
1st	1st	Algorithm and Programming Development: Introduction, Steps in development of a program	1 st (G-I)	Programming exercises on executing and editing a C program
	2nd	Flow charts, Algorithm development ,		
	3rd	Algorithm and Flowchart writing for practical	2 nd (G-I)	Programming exercises on executing and editing a C program
2nd	4th	Programme Debugging, Practice of error detection and corrections in examples.	3 rd (G-I)	Programming exercises on defining variables and assigning values to variables
	5th	Program Structure : Introduction to structure of C program		
	6th	Keywords, assign statements	4 th (G-I)	Programming exercises on defining variables and assigning values to variables
3rd	7th	I/O statements:Printf and Scantf,	5th(G-I)	Programming exercises on arithmeticand relational operators
	8th	Constants, variables and data types		
	9th	Operators and Expressions	6th(G-I)	Programming exercises on arithmeticand relational operators
4th	10th	Unformatted and Formatted IOS	7th(G-I)	Programming exercises on arithmeticexpressions and their evaluation
	11th	Data Type Casting		
	12th	Class Test	8th(G-I)	Programming exercises on arithmeticexpressions and their evaluation
5th	13th	Control Structures :Introduction and use	9th(G-I)	Programming exercises on formattinginput/outputusingp rintfandscanf and their return type values
	14th	Decision making with IF – statement		
	15th	IF – Else and Nested IF	10th(G-I)	Programming exercises on formattinginput/outputusingp rintfandscanf and their return type values
6th	16th	While and do-while, for loop	11th(G-I)	Programming exercises using if,if-else statement
	17th	Break. Continue statements		
	18th	goto and switch statements	12th(G-I)	Programming exercises using if, if-else statement
7th	19th	Revision of of unit III	13th(G-I)	Programming exercises on switch statement
	20th	Sessional Test I		
	21st	Pointers :Introduction to pointers	14th(G-I)	Programming exercises on switch statement
8th	22nd	Signed and unsigned short and long integer variable concepts	15th(G-I)	Programming exercises on do – while, statement
	23rd	Address operator and pointers , Declaring and initializing pointers		
	24th	Single pointer	16th(G-I)	Programming exercises on do – while, statement
9th	25th	Revision of unit IV	17th(G-I)	Programming exercises on for – statement
	26th	Introduction to functions		
	27th	Global and local variables	18th(G-I)	Programming exercises on for – statement
10th	28th	Function Declaration	19th(G-I)	Simple programs using pointers
	29th	Standard functions		
	30th	Parameters and Parameter Passing	20th(G-I)	Simple programs using pointers
11th	31st	Call - by value/reference	21 st (G-I)	Programsonone-dimensionalarray.
	32nd	Sessional II		
	33rd	Arrays and Strings:Introduction to Arrays, Array Declaration, Length of array	22nd(G-I)	Programsonone-

				dimensionalarray.
12th	34th	Single and Multidimensional Array,Arrays of characters	23 rd (G-I)	Programsontwo-dimensionalarray.
	35th	Introduction of Strings: String declaration and definition, String Related function i.e.strlen, strcpy, strcmp		
	36th	Passing an array to function	24 th (G-I)	Programsontwo-dimensionalarray.
13th	37th	Pointers to an array and strings	25 th (G-I)	Programsforputtingtwostrings together. Programsforcomparingtwostrings
	38th	Structures and Unions : Introduction		
	39th	Declaration of structures	26 th (G-I)	Programsforputtingtwostrings together., Programsforcomparingtwostrings
14th	40th	Accessing structure members	27 th (G-I)	Simple programs using functions
	41st	Structure Initialization		
	42nd	Pointer to structures	28 th (G-I)	Simple programs using functions
15th	43rd	Unions; Introduction, Difference between Structures and unions	29 th (G-I)	Simple programs using structures and union
	44th	Concept of File Handling		
	45th	Opening and Closing of File	30 th (G-I)	Simple programs using structures and union
16th	46th	Modes of Accessing Files	31st (G-I)	Program on Reading and Writing data to a file.
	47th	Reading and Writing in the File	32(G-I)	Program on Reading and Writing data to a file.
	48th	Sessional III		

Lesson Plan

Name of Faculty : Amrita Saini
Discipline : Computer Engg.
Semester : 1st
Subject : Fundamentals of IT

Lesson Plan Duration: 16 Weeks

Work Load (Lecture / Practical) per week (In hours): Lecture-2, Practical-4)

Week	Theory	
	LectureDay	Topic (Including Assignment / Test)
1	1	Brief history of development of computers,
	2	Definition of Computer, Block diagram of a Computer, Hardware, Software,
2	1	Booting: Cold and Hot Booting,
	2	Interaction between the CPU and Memory with Input/Output devices, Function of CPU and major functional parts of CPU.
3	1	Memory, Bit, Nibble, Byte, KB, MB, GB, TB, PB, Functions of memory,
	2	Use of storage devices in a Computer, List types of memory used in a Computer, Importance of cache memory,
4	1	CPU speed and CPU word length
	2	Understanding browser, Introduction to WWW, efficient use of search engines,
5	1	Awareness about Digital India portals (state and national portals) and college portals
	2	Various email service providers Creation of email id, sending and receiving emails,
6	1	Attaching documents with email and drive.
	2	Effective use of Gmail, G-Drive, Google Calendar, Google Sites, Google Sheets,
7	1	Online mode of communication using Google Meet & WebEx.
	2	Revision and Test 1
8	1	Introduction to Programming,
	2	Steps involved in problem solving, Definition of Algorithm, Definition of Flowchart
9	1	Steps involved in algorithm development,
	2	differentiate algorithm and flowchart, symbols used in flowcharts,
10	1	algorithms for simple problems,
	2	flowcharts for simple problems, Practice logic building using flowchart/algorithm
11	1	Test 2
	2	Introducing LibreOffice/OpenOffice Calc, Working with Cells, Sheets, data, tables using formulae and functions, using charts and graphics.
12	1	Office Tools like LibreOffice/OpenOffice/MSOffice.
	2	OpenOffice Writer – Typesetting Text and Basic Formatting Inserting Images, Hyperlinks, Bookmarks,
13	1	Tables and Table Properties in Writer
	2	OpenOffice Impress – Creating and Viewing Presentations Inserting Pictures and Tables, Slide Master and Slide Design,
14	1	Custom Animation.
	2	Introduction to Digital Marketing Why Digital Marketing, Characteristics of Digital Marketing,
15	1	Tools for Digital Marketing
	2	Effective use of Social Media like LinkedIn, Google+, Facebook, Twitter, etc Features of Social media
16	1	Advantages and Disadvantages of Social Media.
	2	Assignment And Revision Test 3

Name of faculty : Mrs Payal Arora
Discipline : Comp. Engg
Year : 1st Sem
Subject : Computer workshop
Lesson Plan Duration : 15 weeks

week	Practical Topic
1	Anatomy of a Computer, Foundations of Modern Information Technology, The Central Processing Unit, How Microprocessors and Memory Chips are Made, Memory, Buses for Input and Output, communication With Peripherals.
2	Desktop: Identification of desktop and its parts, Hardware, Software and Firmware Introduction to Mother board, IO and memory expansion slots, Drives, front panel and rear panel.Processors& Bus: Introduction and types of Processor, Introduction to BUS
3	Laptop: Introduction to Laptop, advantages over Desktops Laptop components: Adapter – types, Battery – types, Laptop Keyboard and Touchpad Power Supply: Introduction to online and offline UPS, Difference between online and offline UPS
4	SMPS: Introduction to SMPS, Study of SMPS Connectors
5	Primary Memory: Introduction and types of primary memory (SDRAM, DDR RAM) Secondary Storage: Hard Disk –Working Principle of IDE, HDD Partition – Formatting, Introduction to SATA and Solid-State Drives (SSD)
6	1 st Internal Sessional exam
7	Removable Storage: Introduction to CD, DVD, reading & writing operations; Introduction to Blue-ray devices Flash memory: Flash drives (pen drives), Memory cards and its types
8	Inputting Text and Graphics, State of the Art, Input and Output, Pointing Devices, Foundations of Modern Output, Display Screens, Printers, Foundations of Modern Storage, Storage Media, Increasing Data Storage Capacity, Backing up your Data, The Smart Card Keyboard: Types of keyboards (wired and wireless Keyboard), keyboards connectors, troubleshooting
9	Mouse: types, connectors, operation of Optical mouse and Troubleshooting. Printers: Introduction – Types of printers- Dot Matrix, Inkjet, LaserJet, MFP (Multi-Function Printer), advantages, disadvantages, cables and connectors, Troubleshooting. I/O Ports: Introduction and identification of Serial, Parallel, USB, HDMI.
10	Displays: Introduction to LED, LCD and TFT Displays, cables and connectors Graphic Cards: Introduction to different types of Graphics cards
11	2 nd Sessional exam
12	Bios-setup: Standard CMOS setup, Advanced BIOS setup, advanced chipset features, PC Bios communication, upgrading BIOS, Flash BIOS -setup. POST and BOOTING: Definition, POST Test sequence – beep codes. Diagnostic Software and Viruses: Computer Viruses, Precautions, Anti-virus Software, Working of Antivirus software's
13	General troubleshooting of various peripheral devices (printer, pc, laptop, keyboard, mouse, monitor, hard disk)
14	Assembling and Disassembling of PC DIPLOMA IN COMPUTER ENGINEERING NSQF LEVEL - 3 HARYANA STATE BOARD OF TECHNICAL EDUCATION 29 Installation and Troubleshooting: Formatting, Partitioning and Installation of OS: Windows and Linux Installation of peripheral devices: Printers, scanner Installation of software's: application software, systems software
15	3 rd Sessional Exam

Name of faculty: Payal Arora

Discipline: : Computer Engineering

Subject : Fundamentals of Information Technology

Lesson plan : (First sem)

Duration : 15 weeks

week	Practical	
	Practical day	Topic (including Seminar)
1 st	G1	Browser features, browsing, using various search engines, writing search queries
	G2	Browser features, browsing, using various search engines, writing search queries
2 nd	G1	Visit various e-governance/Digital India portals, understand their features, services offered
	G2	Visit various e-governance/Digital India portals, understand their features, services offered
3 rd	G1	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
	G2	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
4 th	G1	Using Administrative Tools/Control Panel Settings of Operating Systems
	G2	Using Administrative Tools/Control Panel Settings of Operating Systems
5 TH	G1	Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software.
	G2	Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software.
6 TH	G1	Explore features of Open Office tools and MS-Office, create documents, create presentation, create spread sheet, using these features, do it multiple times
	G2	Explore features of Open Office tools and MS-Office, create documents, create presentation, create spread sheet, using these features, do it multiple times
7 th	G1	Working with Conversion Software like pdfToWord, WordToPPT, etc.
	G2	Working with Conversion Software like pdfToWord, WordToPPT, etc.
8 th	G1	Working with Mobile Applications – Searching for Authentic Mobile app, Installation and Settings, Govt. of India Mobile Applications
	G2	Working with Mobile Applications – Searching for Authentic Mobile app, Installation and Settings, Govt. of India Mobile Applications
9 th	G1	Creating email id, sending and receiving mails with attachments.

	G2	Creating email id, sending and receiving mails with attachments.
10 th	G1	Using Google drive, Google calendar
	G2	Using Google drive, Google calendar
11 th	G1	Create Flow chart and Algorithm for the following Addition of n numbers and display result To convert temperature from Celsius to Fahrenheit To find Area and Perimeter of Square Swap Two Numbers find the smallest of two numbers
	G2	Create Flow chart and Algorithm for the following Addition of n numbers and display result To convert temperature from Celsius to Fahrenheit To find Area and Perimeter of Square Swap Two Numbers find the smallest of two numbers
12 th	G1	Find whether given number is Even or Odd To print first n even Numbers find sum of series 1+2+3+.....+N print multiplication Table of a number generate first n Fibonacci terms 0,1,1,2,3,5...n (n>2)sum and average of given series of numbers
	G2	Find whether given number is Even or Odd To print first n even Numbers find sum of series 1+2+3+.....+N print multiplication Table of a number generate first n Fibonacci terms 0,1,1,2,3,5...n (n>2)sum and average of given series of numbers
13 th	G1	Factorial of number n ($n!=1 \times 2 \times 3 \times \dots \times n$) Armstrong Number
	G2	Factorial of number n ($n!=1 \times 2 \times 3 \times \dots \times n$) Armstrong Number
14 th	G1	Find whether given number is Prime or not
	G2	Find whether given number is Prime or not
15 th	G1	Revision/Practice
	G2	Revision/Practice

