Department of Computer Science

Lesson Plan - B. Sc. I (July 2020 - Mar 2021)

# Subject - Programming in C

## Teacher - Prof. Pravin Kumar Sharma

Day/Lecture	Unit	Торіс
1	I	Introduction of Computer and its components with Block Diagram
2	I	Classification of computers with herachical diagram
3	I	What is Language? Introdcution of Programming languages, its types
4	I	Difference between Procedural, Problem oriented, Introdcution of Structured Programming : Modular programming
5	I	Introdcution of Top-down and Bottom-Up Analysis
6	I	Need of System, Introduction of SDLC
7	I	Continue SDLC and its different Phases(Problem Definition, Feasiblity Stduy, Analysis)
8	I	Continue SDLC and its different Phases(Design, Development, Implementation and Maintanence)
9	I	Programming Tools( Algorithm, Flowcharts)
10	I	Language Translator and its types
11	II	Introdcution of C Programming Language, types of C, Character set of C
12	II	Identifier, Literal, Tokens, Constant and Variables and types of Variables
13	II	Keywords(reserve words) and Data types used in C and its types (Primary, Userdefined, Derived)
14	II	Different types of operators used in C, program as an example
15	II	Expression, Statement and its types, Hierarchy of Operators
16	II	Structure of C Program with different sections and its significance
17	II	Program to print name and age, calculate simple and compound Interest
18	II	Program for Addition, substraction, swapping values of two using third variable and without third variables
19	III	Arithematic, Conditional, Control and program as an example
20	III	IF, IF-else, Nested If, break, continue and go to and program as an example
21	III	Introduction of Looping statements and types of loops used in C (for, while, do-while and ODD)
22	III	Storage classes and its types, scope of variables used in Strorage classes
23	III	Standard and Console input and output statements, character oriented and string oriented functions
24	III	Formatted and Unformatted( putc(),getc(),puts(),gets(), scanf and printf functions)
25	III	program of standard and console input/output functions

26	III	program to print factorial of given number, and table of given number
27	III	program for switch case, break staatements
28	III	Programs to display uses of storage classes
29	IV	Introduction of Array, its types and storage in memory
30	IV	Different operations of 1D and 2D Array, Intialization of 1D and 2D Array
31	IV	Program for Matrix Addition and Multiplication and Tranpose of Matrix
32	IV	What is function? Its syntax, types and built-in fucntions.
33	IV	function arguments (actual and formal), Call by Value and Call by reference
34	IV	Program to print factorial, table and addition using function
35	IV	What is recursion? Its types and program for factorial using recursion
36	IV	Introduction of pointers, its operators(Adrress of and Inline)
37	IV	Pointer decration, its uses, advantages and disadvantages
38	IV	Pointer of Array, Array of pointer.
39	IV	program to use pointer to an array and Array of pointers
40	IV	Introcution of 2D Array of Characters and program
41	IV	Introduction of Structure, Its Memory representation and Syntax with Structure Variable
42	IV	Accessing of Structure elements using Special Operator(Period operator), Initialization of an Structure
43	IV	Array of Structure, program to print and calculate average of marks of 20 studetns using Array fo structure.
44	IV	Passing Array to function and Array as an argument of function
45	IV	Program to print square of number using call by reference and call by value.
46	V	Introduction of file(Stream) in C, Classification of file with hierarchical diagram
47	V	Operations performed on a file, Formatted and Unformatted file handling fucntions (fputc,fgetc, fputw,fgetw, fgets, fputs and fscanf, fprintf)
48	V	File pointer and Different modes of files(write, read and append, wb,rb,ab)

49	V	fopen(), fclose(), feof(), Binary mode and Text mode of files
50	V	Error handling and ferror() and Clearerr() funtions of files
51	V	Program to create a copy of a file
52	V	Graphics Introduction, different types of functions used in graphics
53	V	drawing and filling image fucntion used in C
54	V	floodfill(), initgraph(), closegraph(), setcolor() functions used in graphics
55	V	putpixel(), Maxcolor(), getcolor(), outtext(), outtextxy() functions used in graphics
56	V	line drawing alogrithm and program in C
57	V	program to draw a circle and fill it with help of setfillstyle() fucntion.
58	V	program to draw a ellipse() and fill it with bar() function
59	V	Bit of animation, textcolor(),texmode() functions
60	V	Program for moving car on screen using graphics functions

Department of Computer Science

Lesson Plan - B. Sc. I (July 2020 - Mar 2021)

### Subject - Programming in C Practical

# Teacher - Prof. Pravin Kumar Sharma

Day/Lecture	Topic			
1	Program to print Hello, Name and Age			
2	Program for addition of two numbers			
3	Program to print all Arithematic operations			
4	Program to check it is Even or Odd			
5	Program to print pyrarmid of star			
6	Program to print half pyramid of star			
7	Program to print from 1 to 10			
8	Program to print table of given number			
9	Program to print reverse of any number			
10	Program to print fibonnaci series			
11	Program for accessing elements of an array			
12	Program to Insert, delete elements of array			
13	Program to print addition of two numbers using function			
14	Program to print reverse string			
15	Program to print table of given number using function			
16	Program ot print factorial of any given number using function			
17	Program to findout given number is prime or not			
18	Program to find length of string using string fucntion			
19	Program to copy strings using string fucntions			
20	Program to find given string is PALINDROME or not			
21	Program to perform arithematic operations using switch case			
22	Program for Addition, substraction, swapping values of two using third variable and without third variables			
23	Program to find out greatest between two numbers			
24	Program to print greatest between three numbers			
25	Program of standard and console input/output functions			
26	Program for switch case, break staatements			
27	Program to declare and print structure elements			
28	Program to print student records using array of structure			
29	Program to create a file			
30	Program to perform different operations on file using(feof(), Fwrite, Fread() functions)			
31	Program for insert and print matrix elements			
32	Program for addition of two matrices			
33	Program for substaction of two matrices			
34	Program for Matrix multiplication			
35	Program for Matrix multiplication			
36	Program for 2D array of characrters			

# Maharaja Ranjit Singh College of Professional Sciences, Indore Department of Computer Science Lesson Plan - B. Sc. I Year (July 2020 - Mar 2021)

Subject - Fundamental of Computers

#### Teacher - Prof. Meenakshi Vyas

D/T	TT 34	1 eacner - Prof. Meenaksmi Vyas
Day/Lecture	Unit	Topic
1	Unit I	Block diagram of computer:
2		Input unit, output unit , CPU
3		What is Memory unit? Need of Memory.
4		Generation of computers
5		Types of computers:Desktop,Laptop plamtop ,and workstations &super computers
6		Classification of Computer
7		Hardware,software and firmware
8		Intro to OS ,Intro to MS Windows
9		Features of windows
10		Desktop,start menu,icons,wall paper,screen saver,task bar
11		Control panel, My computer, windows explorer, Accessories
12		File & Folder Operations
13		Revision
14	Unit II	Software and its types Intro to ,MS Office
15		What is Word Processor, Different Word Processor Available, Intro to MS Word,
16		Features of MS Word, Advantages of using MS Word
17		Mail Merge & Macros
18		Intro To Spreadsheets, Different types of Spread sheets, Intro to excel
19		Features of MS-Excel, Difference between formula & Function, Different Formulas available
20		Filter, Sorting & Searching
21	Unit III	Need of Number System, Types of Number System, Common NO. Systems
22	Jint III	Conversions from one Decimal to another base whole no.
23	<del>                                     </del>	Conversions from one Decimal to another base whole no.
24		Practice Exercise
25		Conversions from one another base to Decimal whole no.
26		Conversions from one another base to Decimal fractional no.
27		Practice Exercise
28		What are character codes? Need, BCD,EBCDICcode
		ASCLII-7,ASCII-8 code
30		Gray code ,ECC & Revision
31		Binary arithmetic:- addition, subtraction, multiplication & division
32		Unsigned binary numbers, Signed magnitude numbers,
33		1's Complement & 2' s complement representation of numbers
34		2's complement arithmetic + ve no expected
35		2's complement arithmetic -ve no expected
36		Boolean algebra, De-morgan's theorem
37		Boolean fuctions & truth tables,minimizing boolean algebra
38		minimizing boolean algebra,SOP,POS form
39		Minterms/ maxterms, Intro to karnaugh maps
40		K-Maps 2 & 3 Variables
41		K-Maps 4 & more variables
42		What are logic Gates? Need & Applications, Types of Gates
43		AND OR ,NOT ,NAND, NOR
44		Creating Basic Gates from Universal Gates
45		X-NOR and X-NOR gates
46		Circuit design with gates:
47		Half & Full Adder
48		Half & Full subtractor circuit.
49		Revision
50	Unit IV	Recall :What is memory? Need of memory, Types of Memory
51		Types of Memory, Classification according to different aspects
52		Cache memory, secondary memory and its types
53		Virtual memory concept
54	1	Memory accessing methods: serial, random & Semi Random access
55		Data bus ,control bus & address bus
56		Word length of a computer, memory addressing capability of cpu
57		processing speed of a computer
58		Microprocessors, single chip microcomputers micrococontrollers
59	1	Revision
60	Unit V	General architecture of a cpu,Instuction format
61	CIII V	data transfer instructions
62	<del>                                     </del>	Data manipulation instruction and program control instructions
02	L	Date manipulation instruction and program control instructions

63	accumulator based machine, Stack based machine and general purpose register based machine
64	Addressing modes
65	Addressing modes
66	data transfer schemes
67	(i) Programmed data transfer synchoronous asynchronous and interrupt driver data transfer
68	(ii) Direct memory access data transfer cycle stealing block transfer and burst mode of data transfer
69	Revision
70	Revision

Department of Computer Science

Lesson Plan - B. Sc. I (July 2020 - Mar 2021)

Subject -Practical Computer Organization

# Teacher - Prof. Meenakshi Vyas

Day/Lecture	Topic		
1	Desktop,start menu,icons,wall paper,screen saver,task bar		
2	Control panel		
3	Control panel		
4	My computer, windows explorer, Accessories		
5	Creating and managing folders,		
6	Managing files and drives, logging off and shutting down windows		
7	Revision		
8	Assignment & srteps to complete		
9	Wordprocessing,MS Word,Screen Description		
10	Creating ,Saving and Opening Document		
11	Home Ribbon Options		
12	Insert ribbon		
13	Insert ribbon: Tables and other features		
14	Page Layout		
15	Page Layout		
16	Refernces		
17	Mailing Ribbon : Mail-merge		
18	Macro		
19	Revision		
20	Assignment & srteps to complete		
21	Excel- Introduction to workbook and worksheet, screen description		
22	Saving a work book, editing cells, Entering information in a worksheet-		
22	numbers,formula,etc		
23	Entering information in a worksheet-numbers,formula,etc.,		
24	Using commands and functions,		
25	Moving and copying, Inserting and deleting rows and columns		
26	Creating charts, pivot charts and Pivot tables		
27	page setup: margins adding headers& footers before printing		
28	Print Settings		
29	Practice sheets		
30	Practice sheets		

Department of Computer Science

Lesson Plan - B.Sc. IInd Year CS & BT+CS(July 2020 -April2021)

Subject - Data Structure

## Teacher - Shwetanjali Vijayvargiya

Day/Lecture	Unit	Topic
1		Introduction of Data Structures
2		Data Types in Programming Language
3		Abstract Data Structures
4		Array Data Structure
5		2D Array Implementation
6		Matrix Operations
7		Stack Data Structure
8		Stack Implementation
9	1	Infix to Postfix Conversion
10	1	Infix to Postfix Conversion Algorithm and Program
11		Infix to Prefix Conversion
12		Infix to Prefix Conversion Algorithm and Program
13		Postfix Evaluation Aloritham
14		Recursion using Stack
15		Queue Data Structure
16		Circular Queue
17		Double Ended Queue
18		Priority Queue and Application of Queue.
19		Linked List
20		Linked List Insertion and Deletion
21		Circular Linked List
22		Circular Linked List Creation and Deletion
23		Doubly Linked List
24	2	Circular Doubly Linked List
25		Stack Using Linked List
26		Queue Using Linked List
27		Application of Linked List.
28		Revision of 1st and 2nd Unit
29		Class test.
30		Tree Data Structure and basic terminology
31		Binary trees and representation of tree.
32		Postorder, Preorder and Inorder Traversing
33	_	Application of Binary Tree
34	3	Program fot Binary Tree
35		Binary Search Tree Program of Binary Search in Tree
36		Threaded Binary Tree
37		AVL Tree
38		Revision of 3rd Unit
39		Searching Methods
40		Linear and Binary Search
41		Program for Binary and Linear Search.
42		Bubble sort with Program

ŀ
ch

Department of Computer Science

Lesson Plan - B.Sc. IInd Year CS & BT+CS(July 2020 -April2021) Subject - Data Structure

#### Teacher - Shwetanjali Vijayvargiya

Day/Lecture	Practical			
1	Write a program for insertion, deletion and traversal of elements of an array.			
2	Write a program to find addition of two matrix.			
3	Write a program to find multiplication of two matrix.			
4	Write a program to find transpose of a matrix.			
5	Write a program for complete implementation of stack using array with push, pop and traversal operations			
6	Write a program for conversion of an infix expression into postfix representation			
7	Write a program for evaluation of postfix expression			
8	Write a program for complete implementation of queue using array with insertion, deletion and traversal operations			
9	Write a program for complete implementation of circular queue using array with insertion,			
9	deletion and traversal operations write a program for complete implementation of double ended queue using array with			
10	insertion, deletion and traversal energious			
11	Write a program to create singly linked list(creation, insertion, deletion and traversal)			
12	Write a program to create doubly linked list (creation, insertion, deletion and traversal).			
13	Write a program for complete implementation of stack using linked list with push, pop and traversal operations			
14	Write a program for complete implementation of queue using linked list with insertion, deletion and traversal operations.			
15	Write a program for implementation of binary tree (creation, insertion, deletion)			
16	Write a program for preorder, inorder and postorder traversal of binary tree.			
17	Write a program for implementing graphs and showing depth first search and breadth first search traversals.			
18	Write a program for linear search.			
19	Write a program for Binary search.			
20	Write a program for interpolation search.			
21	Write a program for bubble sort.			
22	Write a program for selection sort.			
23	Write a program for insertion sort.			
24	Write a program for merge sort.			
25	Write a program for quick sort.			

Department of Computer Science Lesson Plan - BSc II Year(July 2020 -April2021)

Subject - OOPs using C++

## Teacher - Prof. Meenakshi Vyas

Teacher - Prof. Meenakshi Vyas		
Day/Lecture	Unit	Topic
1	1	Introduction to C++
2		programming paradigms
3		key concepts of object-oriented programming
4		Adavantages of OOP'S
5		Input and output in C++
6		pre-defined streams
7		Unformatted console I/O operations
8		formatted console I/O operations
9	2	C++ declaration
10		parts of C++ program
11		Types of tokens
12		Keywords
13		Identifiers
14		data types
15		constants
16		Operators
17		Procedence of operators
18		Referencing and dereferencing operators
19		Scope access operator
20		Control structures
21		Decision making statements
22		Looping statement
23	3	Functions
24		Types of Function
25		Library functions
26		inline functions
27		function overloading: principal
28		Classes and objects
29		declaring classes and objects
30		accessing class members
31		access specifiers
32		defining member functions
33		member function inside the class
34		member function outside the class
35		static member variables and functions
36		friend function
37		friend classes
38		overloading member functions
39	4	Constructors
40		types of constructors
41		types of constructors
71	1	Typos of conditactors

42		destructors
43		operator overloading
44		overloading unary operator
45		binary operator
46		Inheritance
47		access specifiers
48		protected data with private inheritance
49		Types of inheritances
50		Types of inheritances
51		virtual base class
52	5	Pointers & arrays
53		pointer declaration
54		pointer to class & object
55		Array
56		declarations & initialization
57		arrays of classes
58		Polymorphism
59		Static(early) binding
60		Dynamic (late) binding
61		Virtual function
62		Pure virtual function

Department of Computer Science

Lesson Plan - BSc II Year(July 2020 -April 2021)

Subject - Practical OOPs through C++

## Teacher - Prof Meenakshi Vyas

Day/Lecture	Topic
1	WAP to print your Name.
2	WAP to demonstrate the use of (a) variables and (b) constants.
3	WAP to Simple I/O Function.
4	WAP to find (a) Simple Interest and (b) Compound Interest
5	WAP to show use of scope resolution operator.
6	WAP to allocate & deallocate memory.(new & delete operator)
7	WAP show use manipulators (iomanip.h).
8	WAP to demonstrate type casting in C++.
9	WAP to find greater number from 2 given numbers.
10	WAP to find greatest of three numbers.
11	Display Discount as per followings :-
12	Up to 1000 discount 2 %
13	Up to 5000 discount 10 %
14	Up to 10000 discount 25 %
15	Above 10000 discount 40 %
16	WAP to show use of && and    operator in if condition(suggestion -Leap Year)
17	WAP using switch-case.
18	WAP to print table/numbers from 1-10.
19	WAP to calculate Factorial of a number.
20	WAP to find sum of digits in a number using while.
21	(If 3 digits No. is123 then 1+2+3=6)
22	WAP to check whether a given number is Prime or not.
23	WAP to display elements of an array.
24	WAP to calculate Sum and Average of an array.
25	WAP to sort elements of an array using Bubble sort.
26	WAP to add and subtract 2X2 matrices.
27	WAP to add and subtract 3X3 matrices.
28	WAP to multiply 2X2 matrices.
29	WAP to multiply 3X3 matrices.
30	WAP to ADD, Subtract, Divide and Multiply 2 numbers using Do- While.
31	WAP to create a function using call by Value.
32	WAP to create a function using call by reference.
33	WAP to create a function with default and const arguments.
34	WAP to take i/p & O/p using function.
35	WAP to demonstrate function recursion.
36	WAP to show function Overloading.
37	WAP to input string.
38	WAP to show use of inicap function.
39	WAP to find length of string.
40	WAP to copy String into another String.
41 42	WAP to concatenate 2 Strings.
43	WAP to compare 2 Strings. WAP to reverse string.
43	WAP to reverse string. WAP to change case of String
<del></del>	WAT to change case of Suring

45	WAP to add inch and feet using structure.
46	WAP to change price of book using structure with function
47	Explain a structure to define class, object and member function.
48	WAP for accessing public member of class
49	WAP for accessing private member of class
50	WAP for accessing protected member of class.
51	WAP to show use of inline function.
52	WAP to display operator overloading
53	WAP for default constructer.
54	WAP for parameterized constructer.
55	WAP for copy constructer.
56	WAP for dynamic constructer
57	WAP for simple destructor.
58	WAP for constructer & destructor
59	WAP for accessing private member function.
60	WAP to access private member function
61	.WAP for friend function.
62	.WAP for friend function working as a bridge between two classes.
63	WAP for this pointer.
64	WAP for static data member & member function.
65	WAP for overloading of binary operator using friend function.
66	WAP for overloading of unary operator using friend function.
67	WAP to compare complex no. using class.
68	WAP for single inheritance.
69	WAP for multilevel inheritance.
70	WAP for multiple inheritances.
71	WAP for hierarchical inheritance.
72	WAP for hybrid inheritance.
73	WAP for constructor and destructor using inheritance.
74	WAP for virtual function

Department of Computer Science

Lesson Plan - B. Sc.(CS/Hons) III Year (July 2020 - March 2021)

Subject - Database Management System

Teacher -	Prof	Shaile	ch H	irve
reacher.	· I IOI.	OHALIC	211 11	III VC

Day	Unit	Topic
1		Introduction of DBMS, purpose of DBMS, view of data,
2		Scheamas, Instances, Data Dictionary
3		Data Models
4		Data Models
5	I	Data Models
6		Database language, Database administrator,
7		Database System Structure.
8		3 View Architecture of DBMS
9		Data Independence and its types
10		Entity Relationship Model: Basic Concepts,
11		Relationships, Mapping Constraints,
12		Entity Set, weak Entity, Strong Entity, Entity Features
13		Types of Keys, Types of Attributes
14	TT	E-R Model Notations, E -R Diagram
15	II	design of an E-R database schema
16		Generalization
17		Specialization
18		Aggrigation
19		Reduction of E-R schema to table
20		Set Theory Notations: Relations, Domain
21		Set Theory Notations: Attributes, Tuples, Keys
22		Types of Attributes
23		Types of Keys
24	III	Entity & Refferential Intigrity
25		Extention and Intention
26		Relational Algebra Operations
27		Relational Algebra Operations
28		Relational Algebra Operations
29		Functional Dependencies
30		Functional Dependencies
31		Pitfalls in Relational Database Design, Decomposition
32	IV	Normalization using functional dependencies
33	1 V	Normalization using multivalue dependencies
34		Normalization using joined dependencies
35		Integrity Constraints:- domain constraints, entity integrity constraints, referential
53		integrity constraints
36	V	Indexing
37		Hashing
38		B-Tree Index File
39		Static & Dynamic Hashing
40	v	Multiple Key Accesses
41		Multiple Key Accesses
42		Examples
43		Examples
		·

Department of Computer Science

Lesson Plan - B. Sc.(CS/Hons) III Year (July 2020 - March 2021)

Subject - Database Management System Practical

#### Teacher - Prof. Shailesh Hirve

Day	Торіс
1	Introduction to SQL, DDL, DML, and DCL statements
2	Introduction to SQL, DDL, DML, and DCL statements
3	DDL Commands
4	DDL Commands
5	DDL Commands
6	DML Commands
7	DML Commands
8	DML Commands
9	various Form of SELECT- Simple, Using Special Operators for Data Access
10	various Form of SELECT- Simple, Using Special Operators for Data Access
11	various Form of SELECT- Simple, Using Special Operators for Data Access
12	various Form of SELECT- Simple, Using Special Operators for Data Access
13	DCL Commands
14	DCL Commands
15	TCL Commands
16	TCL Commands
17	Nested Queries & Exposure to Joins, Aggregate Functions
18	Nested Queries & Exposure to Joins, Aggregate Functions
19	Triggers
20	Functions
21	Procedures
22	Cursors

Department of Computer Science

Lesson Plan - B. Sc. III(July-2020 -April-2021)

Subject - Operating System Concepts

## Teacher - Harshita sharma

Day/Lecture	Unit	Торіс
1	I	Introduction to operating system:Defination,its components
2		Types of operating system- batch, multiprogrammming,
3		multitasking operating system, multiprocessor operating system,
4		real time operating system, client server operating system, peer-peer
5		distributed operating system and clustered operating system
6		Introduction to services of operating system
7		System calls, protection of input /output
8		Memory and CPU
9	II	Introduction to process scheduling: concept of a process.
10		process states,PCB,process life cycle
11		Concept of how to apply operations on process
12		context switch,types of schedulers
13		CPU burst-I/O burst cycles
14		Dispatcher, scheduling criteria
15		scheduling algorithms- FCFS
16		SJF AlgorithmSTRN Algorithm,Round Robin Algorithm,
17		priority,event driven,multilevel queue
18		performance evaluation of algorithms through deterministic modelling
19	III	Memory management: address binding,logical space
20		and physical address spacedynamic loading and linking.
21		contiguous memory allocation:static and dynamic partitioned memory
22		Introduction to fragmentation
23		swapping relocation, compaction, protection
24		Introduction to Non contiguous memory allocation:
25		concept of paging segmentation
26		Virtual memory: demand paging,page fault
27		page Replacement algorithms-FIFO algorithm
28		Concept of LRU-least recently used algorithm
29		Concept of optimal algorithm
30		solved practise questions based on algorithms
31		Concept of Thrasing,pagefault frequency
32	IV	Interprocess communication need for synchronization
33		Defination of Deadlocks, avoidance, prevention of Deadlock.
34		detection and recovery of Deadlock
35		Disk organization, directory structure
36		Concept of disk space management
37		contiguous and non contiguous allocation strategies
38		Introduction to disk address translation

disk cashing,disk sheduling algorithms  Device Management:dedicated devices, shared devices  Introduction to security and protection  Security threats and goals penetration attempts.  security policies and mechanisms  concept of authntication, protection and access control.  V Introduction to Linux operating system  History and features of linux  Introduction to Linux architecture  File system of linux hardware requirements  Introduction to Linux standard directories  Introduction to Linux kernel  working with linux: KDE and Gnome graphical interface  Introduction to various types of shells available in Linux  Introduction to Linux Commands  concept of file security in linux  practical on how to use different types of commands in linux  Revision of Linux commands  Revision of practical implementation on linux commands		•	
Introduction to security and protection	39		disk cashing,disk sheduling algorithms
Security threats and goals   penetration attempts.	40		Device Management:dedicated devices,shared devices
43	41		Introduction to security and protection
44 security policies and mechanisms 45 concept of authntication, protection and access control. 46 V Introduction to Linux operating system 47 History and features of linux 48 Introduction to Linux architecture 49 File system of linux hardware requirements 50 Introduction to Linux standard directories 51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	42		Security threats and goals
45 concept of authntication,protection and access control.  46 V Introduction to Linux operating system  47 History and features of linux  48 Introduction to Linux architecture  49 File system of linux hardware requirements  50 Introduction to Linux standard directories  51 Introduction toLinux kernel  52 working with linux: KDE and Gnome graphical interface  53 Introduction to various types of shells available in Linux  54 Introduction to vi editor  55 Introduction to Linux Commands  56 concept of file security in linux  57 practical on how to use different types of commands in linux  58 practical on how to create file directory with the help of commands  59 Revision of Linux commands	43		penetration attempts.
46 V Introduction to Linux operating system 47 History and features of linux 48 Introduction to Linux architecture 49 File system of linux hardware requirements 50 Introduction to Linux standard directories 51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	44		security policies and mechanisms
47 History and features of linux 48 Introduction to Linux architecture 49 File system of linux hardware requirements 50 Introduction to Linux standard directories 51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	45		concept of authntication, protection and access control.
48 Introduction to Linux architecture 49 File system of linux hardware requirements 50 Introduction to Linux standard directories 51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	46	V	Introduction to Linux operating system
File system of linux hardware requirements  Introduction to Linux standard directories  Introduction toLinux kernel  working with linux: KDE and Gnome graphical interface  Introduction to various types of shells available in Linux  Introduction to vi editor  Introduction to Linux Commands  concept of file security in linux  practical on how to use different types of commands in linux  practical on how to create file directory with the help of commands  Revision of Linux commands	47		History and features of linux
50 Introduction to Linux standard directories 51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	48		Introduction to Linux architecture
51 Introduction toLinux kernel 52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	49		File system of linux hardware requirements
52 working with linux: KDE and Gnome graphical interface 53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	50		Introduction to Linux standard directories
53 Introduction to various types of shells available in Linux 54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	51		Introduction toLinux kernel
54 Introduction to vi editor 55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	52		working with linux: KDE and Gnome graphical interface
55 Introduction to Linux Commands 56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	53		Introduction to various types of shells available in Linux
56 concept of file security in linux 57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	54		Introduction to vi editor
57 practical on how to use different types of commands in linux 58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	55		Introduction to Linux Commands
58 practical on how to create file directory with the help of commands 59 Revision of Linux commands	56		concept of file security in linux
59 Revision of Linux commands	57		practical on how to use different types of commands in linux
	58		practical on how to create file directory with the help of commands
Revision of practical implementation on linux commmands	59		Revision of Linux commands
1 1	60		Revision of practical implementation on linux commmands

Department of Computer Science

Lesson Plan - B.Sc. III Year (July-2020 -April-2021) Subject - Operating System(practical)

## **Teacher - Harshita Sharma**

Day/Lecture	Topic
	Commands for files and Directories
	VI Editor Commands
	VI Editor Commands
	VI Editor Commands
	Process Commands
	Process Commands
	Communication Commands
	Communication Commands
	Communication Commands