

Lesson Plan

Name of Faculty: Visiting Faculty

Discipline: Computer Engg.

Semester:4th

Subject: OOPS

Lesson plan duration: 15Weeks (from January 2019 to April 2019) Theory-3hrs, Practical-6hrs.

Week	Theory		Practical	
1 st week	1 st day	Unit 1: Introduction and Features 1.1 Fundamentals of object oriented programming – procedure oriented programming Vs. object oriented programming (OOP)	1 st day(G1)	Write a function using variables as arguments to swap the values of a pair of integers
			1 st day(G2)	Write a function using variables as arguments to swap the values of a pair of integers
	2 nd day	1.2 Object oriented programming concepts – Classes, reusability, encapsulation, Inheritance	2 nd day(G1)	Consider a shopping list of items for which we place an order with a dealer every month.The list includes such as the code number and price of each item .we would like to perform operations such as adding an item to the list,deleting an item from the list and printing the total value of the order.
2 nd week	3 rd day	1.3 polymorphism, dynamic binding, message passing, Data Hiding	2 nd day(G2)	Consider a shopping list of items for which we place an order with a dealer every month.The list includes such as the code number and price of each item .we would like to perform operations such as adding an item to the list,deleting an item from the list and printing the total value of the order.
	4 th day	1.4 Benefits of OOPs and its Application	1 st day(G1)	Write a program to read name, roll no ,internal external marks using classes and display the same on the screen.
			1 st day(G2)	Write a program to read name, roll no ,internal external marks using classes and display the same on the screen.
5 th day	Unit 2: Language Constructs 2.1 Review of constructs of C used in C++:	2 nd day(G1)	Write a program of swapping of numbers by accessing private numbers using friend function.	
6 th	2.2 variables, types and type	2 nd	Write a program of swapping of	

	day	declarations	day(G2)	numbers by accessing private numbers using friend function.
3 rd week	7 th day	2.3 user defined data types;	1 st day(G1)	Exercise on function
			1 st day(G2)	Exercise on function
	8 th day	2.4 increment and decrement operators, relational and logical operators;	2 nd day(G1)	Lab Test
	9 th day	2.5 if then else clause; conditional expressions,	2 nd day(G2)	Lab test
4 th week	10 th day	2.6 input and output statement, loops, switch case	1 st day(G1)	Exercise on bank account using class object constructor
	11 th day	2.7 arrays, structure, unions, functions	1 st day(G2)	Exercise on bank account using class object constructor
	12 th day	2.8 pointers; preprocessor directives and Header Files	2 nd day(G1)	Exercise on class and objects
			2 nd day(G2)	Exercise on class and objects
5 th week	13 th day	2.9 Scope Resolution Operator Managing Console I/O Operations;	1 st day(G1)	Design a system using a class called books with suitable member functions and constructors. Use new operator in constructor to allocate memory space require.
			1 st day(G2)	Design a system using a class called books with suitable member functions and constructors. Use new operator in constructor to allocate memory space require.
	14 th day	2.10 C++ Stream, Unformatted and Formatted Console I/O	2 nd day(G1)	Continue as 1 st day
	15 th day	Unit 3: Classes and Objects 3.1 Creation, accessing class members	2 nd day(G2)	Continue as 1st day
	6 th week	16 th day	3.2 Private Vs Public	1 st day(G1)
17 th day		3.3 Constructor and Destructor with and without Arguments	1 st day(G2)	Define a class string that could work as a userdefined string type include constructors that will enable us to create an .un-initialized string
18 th day		3.4 Objects	2 nd day(G1)	Continue as 1 st day
			2 nd day(G2)	Continue as 1st day

7 th week	19 th day	3.5 Dynamic memory Allocation with new and Delete Operator	1 st day(G1)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
			1 st day(G2)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
	20 th day	Unit 4: Member Functions 4.1 Method definition	2 nd day(G1)	Lab Test
	21 st day	4.2 Inline Implementation	2 nd day(G2)	Lab Test
8 th week	22 nd day	4.3 Constant member functions	1 st day(G1)	Exercise on class , member function , constructors
			1 st day(G2)	Exercise on class , member function , constructors
	23 rd day	4.4 Static Function, This Pointer	2 nd day(G1)	Exercise on class , member function , constructors
	24 th day	4.5 Friend Function and its Characteristics	2 nd day(G2)	Exercise on class , member function , constructors
9 th week	25 th day	Unit 5: Overloading Member Functions 5.1 Introduction to Operator Overloading, Need of operator overloading	1 st day(G1)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
			1 st day(G2)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
	26 th day	5.2 prefix and postfix, overloading binary operators instream/outstream operator overloading	2 nd day(G1)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
	27 th day	5.3 Constructor Overloading, Type Conversion, Rules of Operator	2 nd day(G2)	Create a class float that contains 2 float data member. Over load all the 4 arithmetic operators so that do operate on the objects of float.
10 th week	28 th day	5.4 Rules of Operator Overloading.Comparison between Function Overloading and overriding	1 st day(G1)	Programming Exercise on Inheritance
			1 st day(G2)	Programming Exercise on Inheritance
	29 th day	Unit 6 Inheritance 6.1 Definition of inheritance, Types of inheritance; Single inheritance, hierarchical inheritance, multiple	2 nd day(G1)	Lab Test

		inheritance, hybrid inheritance , constructors and destructors of derived classes, and virtual functions,		
	30 th day	6.2 protected data, private data, public/data, inheriting	2nd day(G2)	Lab Test
11 th week	31 st day	6.3 constructors and destructors	1 st day(G1)	Define 2 classes POLAR and RECTANGLE to represent points in the POLAR and RECTANGLE systems. Use conversion routines to convert from one system to the other
			1 st day(G2)	Define 2 classes POLAR and RECTANGLE to represent points in the POLAR and RECTANGLE systems. Use conversion routines to convert from one system to the other
	32 nd day	6.4 constructor for virtual base classes,	2 nd day(G1)	Define 2 classes POLAR and RECTANGLE to represent points in the POLAR and RECTANGLE systems. Use conversion routines to convert from one system to the other
	33 rd day	6.5 constructors and destructors of derived classes, and virtual functions	2nd day(G2)	Define 2 classes POLAR and RECTANGLE to represent points in the POLAR and RECTANGLE systems. Use conversion routines to convert from one system to the other
12 th week	34 th day	6.6 size of a derived class, order of invocation	1 st day(G1)	Exercise on Base class and derived class
			1 st day(G2)	Exercise on Base class and derived class
	35 th day	Unit 7: Polymorphism and Virtual Functions 7.1 Importance of virtual function, function call binding, virtual functions	2 nd day(G1)	Exercise on Base class and derived class
	36 th day	7.2 virtual functions, implementing late Binding	2nd day(G2)	Exercise on Base class and derived class
13 th week	37 th day	7.3 need for virtual functions, abstract base classes	1 st day(G1)	Revision Of class and objects
			1 st day(G2)	Revision Of class and objects
	38 th day	7.4 pure virtual functions,	2 nd day(G1)	Lab Test

	39 th day	7.5 virtual destructors	2 nd day(G2)	Lab Test
14 th week	40 th day	Unit 8: File and Streams 8.1 Components of a file, different operation of the file,	1 st day(G1)	Exercise on file handling
			1 st day(G2)	Exercise on file handling
	41 th day	8.2 communication in files, creation of file streams	2 nd day(G1)	Exercise on file handling
	42 nd day	8.3 communication in stream classes, headerfiles,	2 nd day(G2)	Exercise on file handling
15 th week	43 rd day	8.4 updating of file, opening and closing a file	1 st day(G1)	Revision
	44 th day	8.5, file modes and filepointers and their manipulations	1 st day(G2)	Revision
			2 nd day(G1)	Revision
	45 th day	8.6 functions manipulation of file pointers, detecting end-of-file.	2 nd day(G2)	Revision

Lesson Plan

Name of the Faculty: SANDEEP TANWAR

Discipline: COMPUTER ENGG.

Semester: 4th

Subject: MICROPROCESSOR AND PERIPHERAL DEVICES

Lesson Plan: 15Weeks (from January 2019 to April 2019) Theory-4hrs, Practical-3hrs.

We ek	Theory		Practical	
1 st We ek	Day 1	Evolution of Microprocessor Typical organization of a microcomputer system	Day1 G1	Familiarizationofdifferentkeysof8 085microprocessorkitanditsmemo rymap
	Day 2	Functions of its various blocks.		
	Day 3	Microprocessor, its evolution	Day2 G2	Familiarizationofdifferentkeysof8 085microprocessorkitanditsmemo rymap
	Day 4	Function and impact on modern society		
2 nd We ek	Day 1	Architecture of a Microprocessor (With reference to 8085 microprocessor) Functional block diagram of 8085 and function of each block	Day1 G1	Familiarizationofdifferentkeysof8 085microprocessorkitanditsmemo rymap
	Day 2	Functional block diagram of 8085 and function of each block		
	Day 3	Functional block diagram of 8085 and function of each block	Day2 G2	Familiarizationofdifferentkeysof8 085microprocessorkitanditsmemo rymap
	Day 4	Pin details of 8085 and related signals		
3 rd	Day	Pin details of 8085 and related signals	Day1	Stepsto

Week	1	G1	enter, modify data/program and to execute a programme on 8085 kit
	Day 2	Pin details of 8085 and related signals		
	Day 3	Demultiplexing of address/data bus	Day 2 G2	Step to enter, modify data/program and to execute a programme on 8085 kit
	Day 4	Generation of read/write control signals		
4 th Week	Day 1	Steps to execute a stored programme	Day 1 G1	Step to enter, modify data/program and to execute a programme on 8085 kit
	Day 2	Instruction Timing and Cycles Instruction cycle		
	Day 3	Machine cycle and T-states	Day 2 G2	Step to enter, modify data/program and to execute a programme on 8085 kit
	Day 4	Fetch and execute cycle		
5 th Week	Day 1	<i>Read, Write Timing diagrams</i>	Day 1 G1	Writing and execution of ALP for addition of two 8-bit numbers
	Day 2	Programming (with respect to 8085 microprocessor) Machines and Mnemonic codes		
	Day 3	Instruction format	Day 2 G2	Writing and execution of ALP for addition of two 8-bit numbers
	Day 4	Addressing mode		
6 th Week	Day 1	Identification of instructions as to which addressing mode they belong	Day 1 G1	Writing and execution of ALP for subtraction of two 8-bit numbers
	Day 2	Concept of Instruction set		
	Day 3	Explanation of the instructions of the Data transfer group instruction set	Day 2 G2	Writing and execution of ALP for subtraction of two 8-bit numbers
	Day 4	Explanation of the instructions of the Data transfer group instruction set		
7 th Week	Day 1	Explanation of the instructions of the Arithmetic Group instruction set	Day 1 G1	Writing and execution of ALP for multiplication of two 8-bit numbers
	Day 2	Explanation of the instructions of the Arithmetic Group instruction set		
	Day 3	Explanation of the instructions of the Logic Group instruction set	Day 2 G2	Writing and execution of ALP for multiplication of two 8-bit numbers

	Day 4	Explanation of the instructions of the Logic Group instruction set		numbers
8 th Week	Day 1	Explanation of the instructions of the Stack group of instruction set	Day 1 G1	Writing and execution of ALP for division of two 8-bit numbers
	Day 2	Explanation of the instructions of the I/O group of instruction set		
	Day 3	Explanation of the instructions of the Machine Control Group of instruction set	Day 2 G2	Writing and execution of ALP for division of two 8-bit numbers
	Day 4	Programming exercises in assembly language. (Examples can be taken from the list of experiments)		
9 th Week	Day 1	Programming exercises in assembly language. (Examples can be taken from the list of experiments)	Day 1 G1	Writing and execution of ALP for arranging 10 numbers in ascending order

Lesson Plan

Name of the Faculty : SANDEEP TANWAR
 Discipline : Computer Engg.
 Semester : 4th
 Subject : DBMS
 Lesson plan duration : 15 weeks (from January, 2019 to April, 2019) Theory-3hr, Practical-3hrs

Week	Theory		Practical	
	Lecture Day	Topic (including assignments /tests)	Practical Day	Topic
1 st Week	1 st	Database Systems : Introduction to Database and its purpose & Database System	1 st (G1)	Overview, Features and functionality
	2 nd	Why Database & History of Database System	2 nd (G2)	Overview, Features and functionality
	3 rd	Characteristics of the database approach & Advantages and disadvantages of database systems		
Week 2	1 st	Introduction to Conventional File System & Concept of files, record, data, information retrieval Comparison between Conventional System and DataBase System	1 st (G1)	Application development in MS-Access
	2 nd	Classification of DBMS Users - Actors on the scene & Database Administrators, Database Designers, End Users, System Analysts and Application Programrs	2 nd (G2)	Application development in MS-Access

	3 rd	Workers behind the scene (DBMS system designers and implementers, tool developers, operator and maintenance personnel) History of data base System		
Week 3	1 st	Assignment on Database system		Exercises on different forms of select statement
	2 nd	Test		
	3 rd	Data models: (Physical Model, Object based Model, Record based Model Network Model, Heirachical Model)	2 nd (G2)	Exercises on different forms of select statement
Week 4	1 st	Schemas, sub schemas instances, data base state. Case Study of models and schemas (examples student information System)	1 st (G1)	Exercises on altering of Tables
	2 nd	DBMS Architecture: Three Level of Architecures		
	3 rd	Data base Administrator and Administration, Database Management System – Advantage and Disadvantage, Classification of DBMS, DBMS Interfaces	2 nd (G2)	Exercises on altering of Tables
Week 5	1 st	Concept of centralized and Client /Server Architecture for DBMS: Single Tier, Two Tier and Three Tier	1 st (G1)	Exercises on dropping of Tables
	2 nd	Data Independence Logical data Independence , Physical data Independence		
	3 rd	Database Languages and Interfaces DBMS Language & DBMS Interfaces	2 nd (G2)	Exercises on dropping of Tables
Week 6	1 st	Classification of Database Management Systems: Centralized, Distributed, parallel and Object based	1 st (G1)	Exercises on creation of tables
	2 nd	Assignment on Database Architecture		
	3 rd	Test	2 nd (G2)	Exercises on creation of

				tables
Week 7	1 st	Data Modeling using E.R. Model: Data Modeling using E.R. Model (Entity Relationship Model)	1 st (G1)	Exercises on insertion of data into tables
	2 nd	Data Models Classification : File based or primitive models, traditional data models, semantic data models		
	3 rd	Entities and Attributes	2 nd (G2)	Exercises on insertion of data into tables
Week 8	1 st	Entity types and Entity sets	1 st (G1)	Exercises on deletion of data
	2 nd	Key attribute and domain of attributes		
	3 rd	Relationship among entities	2 nd (G2)	Exercises on deletion of data
Week 9	1 st	Database design with E/R model	1 st (G1)	Exercises on deletion of data using different conditions
	2 nd	ER Design Issues		
	3 rd	Mapping Constraints	2 nd (G2)	Exercises on deletion of data using different conditions
Week 10	1 st	Assignment on Entity Relationship Model	1 st (G1)	Exercises on UPDATE statement
	2 nd	Test		
	3 rd	Relational Model Concepts: Domain, Attributes, Tuples	2 nd (G2)	Exercises on UPDATE statement
Week 11	1 st	Cardinality Keys- Primary, Secondary	1 st (G1)	Exercise on structured query Language
	2 nd	foreign, Alternative Keys etc and Relations		
	3 rd	Assignment on Relational Model	2 nd (G2)	Exercise on structured query Language
Week 12	1 st	Test	1 st (G1)	Exercise on Select Command with where clause
	2 nd	Structured Query Language – Data definition language : Create Command		

	3 rd	Data definition language : Alter & Drop commands	2 nd (G2)	Exercise on Select Command with where clause
Week 13	1 st	Data Manipulation Language (DML)	1 st (G1)	Exercise on Select Command using conditional expressions and Boolean operator
	2 nd	Select command with where clause using conditional expressions		
	3 rd	Boolean operators	2 nd (G2)	Exercise on Select Command using conditional expressions and Boolean operator
Week 14	1 st	Group by clause & like operator	1 st (G1)	Exercise on Select Command with group by clause and Like operator
	2 nd	Insert Command		
	3 rd	Update and Delete commands	2 nd (G2)	Exercise on Select Command with group by clause and Like operator
Week 15	1 st	Assignment on DDL	1 st (G1)	Practice exercises on MS Access and SQL
	2 nd	Assignment on DML		
	3 rd	Test	2 nd (G2)	Practice exercises on MS Access and SQL

Lesson Plan

Name of the Faculty : SANDEEP TANWAR
 Discipline : Computer Engg.
 Semester : 4th
 Subject : CO
 Lesson plan duration : 15 weeks (from January, 2019 to April, 2019) Theory-4hr

Week	Theory	
	Lecture Day	Topic (including assignments /tests)
1 st Week	1 st	Hardware organisation of computer system Basic Principle: Basic about Computer System
	2 nd	CPU organization : general register organisation
	3 rd	Stack organization
	4 th	Instruction formats : Introduction
Week 2	1 st	three address, two address,
	2 nd	one address, zero address
	3 rd	RISC instruction
	4 th	Addressing modes: Immediate, register
Week 3	1 st	Direct, in direct,.
	2 nd	relative, indexed
	3 rd	CPU Design: MicroProgramdvs hard wired control.
	4 th	CPU Design: MicroProgramdvs hard wired control.

Week 4	1 st	Reduced instruction set computers Reduced instruction set computers
	2 nd	Reduced instruction set computers Reduced instruction set computers
	3 rd	CISC characteristics
	4 th	RISC characteristics,
Week 5	1 st	Comparison between CISC & RISC
	2 nd	Assignment on CPU Organization
	3 rd	Assignment on CPU Design
	4 th	Discussion on unit 1
Week 6	1 st	Memory organization: Basics About Memory
	2 nd	Memory Hierarchy
	3 rd	RAM and ROM chips
	4 th	Memory address map
Week 7	1 st	Memory connections to CPU
	2 nd	Auxillary memory : Magnetic disks
	3 rd	Auxillary memory : magnetic tapes
	4 th	Associative memory
Week 8	1 st	Cache memory
	2 nd	Virtual memory
	3 rd	Memory management hardware
	4 th	Assignment on Memory Hierarchy
Week 9	1 st	Assignment on Auxillary memory
	2 nd	Test
	3 rd	I/O organization: Basis Input output system(BIOS)
	4 th	Function of BIOS
Week 10	1 st	Testing and initialization
	2 nd	Configuring the system

	3 rd	Assignment on BIOS
	4 th	Modes of Data Transfer
Week 11	1 st	Programd I/O
	2 nd	Synchronous, asynchronous and interrupt initiated
	3 rd	Synchronous, asynchronous and interrupt initiated
	4 th	DMA data transfer
Week 12	1 st	Assignment on modes of Data Transfer
	2 nd	Test
	3 rd	Architecture of multiprocessor systems : Introduction about Multi processor systems
	4 th	Architecture of multiprocessor systems
Week 13	1 st	Forms of parallel processing
	2 nd	Parallel processing and pipelines
	3 rd	Basic characteristics of multiprocessor
	4 th	Assignment on multiprocessor System
Week 14	1 st	General purpose multiprocessors'
	2 nd	Interconnection networks : time shared common bus
	3 rd	multi port memory
	4 th	cross bar switch
Week 15	1 st	multi stage switching networks and hyper cube structures
	2 nd	multi stage switching networks and hyper cube structures
	3 rd	Assignment on Interconnection networks
	4 th	Test

Lesson Plan

Name of the Faculty : Visiting Faculty

Discipline : Computer Engg.

Semester : 4th

Subject : Data Structure using C

Lesson plan duration : 15 weeks (from January, 2019 to April, 2019) Theory-3hr, Practical-6hrs

Week	Theory		Practical	
	Lecture Day	Topic (including assignments /tests)	Practical Day	Topic
1 st Week	1 st	Problem solving concept , Top-down and bottom-up design, structured programming	1 st	Exercise of C Program
			2 nd	Exercise of C Program
	2 nd	Concept of data type, variables and constants	1 st	Exercise of C Program /Revision/Practice Session
	3 rd	Introduction to data Structure(Linear, Non Linear, Primitive, Non Primitive))	2 nd	Exercise of C Program /Revision/Practice Session
Week 2	1 st	Concept of Data Structure (Array, Linked List, Stack, Queue, Trees, Graphs)	1 st	Exercise of C Program
			2 nd	Exercise of C Program
	2 nd	Concept of Arrays	1 st	Program regarding Array/Revision/Practice Session
	3 rd	One dimensional Array, Two Dimensional Array: Representation of Two dimensional Array (Base address, LB, UB)	2 nd	Program regarding Array/Revision/Practice Session

Week 3	1 st	Operational on Arrays with Algorithms (inserting, deleting)	1 st	Program regarding Array
	2 nd	Operational on Arrays with Algorithms (Searching, Traversing	2 nd	Program regarding Array
	3 rd	Introduction to linked list and double linked list, Representation of Linked list in Memory	1 st	Program regarding Array/Revision/Practice Session
			2 nd	Program regarding Array/Revision/Practice Session
Week 4	1 st	Describe and Comparison between Linked list and Array	1 st	Program of Matrices
	2 nd	Traversing and Searching Linked List	2 nd	Program of Matrices
	3 rd	Insertion and deletion into Linked list	1 st	Program of Matrices/Revision/Practice Session
			2 nd	Program of Matrices/Revision/Practice Session
Week 5	1 st	Application of Linked List and Explain Doubly Linked List	1 st	Program of addition of two Matrices using function
	2 nd	Traversing, Insertion and deletion into doubly Linked List	2 nd	Program of addition of two Matrices using function
	3 rd	Introduction to Stack, Representation of Stacks With Array and Linked list	1 st	Program of addition of two Matrices using function/Revision/Practice Session
			2 nd	Program of addition of two Matrices using function/Revision/Practice Session
Week 6	1 st	Implementation of Stacks	1 st	Program of inserting and deleting elements in array
	2 nd	Application of stack (Polish Notation, Converting Infix to Post Fix Notation)		
			2 nd	Program of addition of two Matrices using function/Revision/Practice Session

	3 rd	Evaluation of Post fix Notation and Tower of Hanoi	1 st	Program of inserting and deleting elements in array /Revision/Practice Session
			2 nd	Program of inserting and deleting elements in array /Revision/Practice Session
Week 7	1 st	Recursion : Concept and Comparison between recursion and Iteration	1 st	Program of Push and POP Operation in stack
	2 nd	Introduction of Queues and Implementation of queues (array and Linked list with algorithm)	2 nd	Program of Push and POP Operation in stack
	3 rd	Introduction of Queues and Implementation of queues (array and Linked list with algorithm)	1 st	Program of Push and POP Operation in stack /Revision/Practice Session
			2 nd	Program of Push and POP Operation in stack /Revision/Practice Session
Week 8	1 st	Explain Circular Queues and De-Queues	1 st	Program of Conversion from infix notation
	2 nd	Introduction of Trees and Concept of Binary Trees	2 nd	Program of Conversion from infix notation
	3 rd	Explain Complete and Extended Binary Tree	1 st	Program of Conversion from infix notation/Revision/Practice Session
2 nd			Program of Conversion from infix notation/Revision/Practice Session	
Week 9	1 st	Concept of representation of Binary Tree	1 st	Program of the Factorial of given number using recursion
	2 nd	Concept of representation of balanced Binary Tree	2 nd	Program of the Factorial of given number using recursion

	3 rd	Explain Traversing Binary Trees (Pre Order, Post Order and In Order)	1 st	Program of the Factorial of given number using recursion /Revision/Practice Session
			2 nd	Program of the Factorial of given number using recursion /Revision/Practice Session
Week 10	1 st	Explain Searching, inserting and deleting in binary search trees	1 st	Insertion and Deletion of elements in Queue and Circular Queue using Pointer
	2 nd	Explain Searching, inserting and deleting in binary search trees	2 nd	Insertion and Deletion of elements in Queue and Circular Queue using Pointer
	3 rd	Problems Solution	1 st	Insertion and Deletion of elements in Queue and Circular Queue using Pointer /Revision/Practice Session
			2 nd	Insertion and Deletion of elements in Queue and Circular Queue using Pointer /Revision/Practice Session
Week 11	1 st	Test	1 st	Insertion and Deletion of elements in Linked List and doubly Linked list
	2 nd	Problems Solution	2 nd	Insertion and Deletion of elements in Linked List and doubly Linked list
	3 rd	Previous topic Explain	1 st	Insertion and Deletion of elements in Linked List and doubly Linked list/Revision/Practice Session
			2 nd	Insertion and Deletion of elements in Linked List and doubly Linked list/Revision/Practice Session
Week 12	1 st	Introduction of Sorting and Searching	1 st	Program of Linear Search procedures to search an element in given list
	2 nd	Search algorithm(Linear and Binary)	2 nd	Program of Linear Search procedures to search an element

				in given list
	3 rd	Search algorithm(Linear and Binary)	1 st	Program of Binary Search procedures to search an element in given list/Revision/Practice Session
			2 nd	Program of Binary Search procedures to search an element in given list/Revision/Practice Session
Week 13	1 st	Concept and uses of Sorting	1 st	Previous Problems solution
			2 nd	Previous Problems solution
	2 nd	Sorting Algorithm (Bubble sort)		
	3 rd	Sorting Algorithm (Insertion sort)	1 st	Previous Problems solution /Revision/Practice Session
			2 nd	Previous Problems solution /Revision/Practice Session
Week 14	1 st	Sorting Algorithm (Selection sort)	1 st	Program of Bubble Sort
	2 nd	Sorting Algorithm (Merge Sort)	2 nd	Program of Bubble Sort
	3 rd	Sorting Algorithm (Radix sort) & Sorting Algorithm (Heap Sort)	1 st	Program of Bubble Sort/Revision/Practice Session
			2 nd	Program of Bubble Sort/Revision/Practice Session
Week 15	1 st	Problems Solution	1 st	Program of Selection Sort
	2 nd	Problems solution	2 nd	Program of Selection Sort
	3 rd	Test	1 st	Program of Selection Sort /Revision/Practice Session
			2 nd	Program of Selection Sort /Revision/Practice Session