

**Lesson plan of 2023-24**  
**(3<sup>RD</sup> SEMESTER IT)**

DISCIPLINE:IT	SEMESTER:3RD	NAME OF THE TEACHING FACULTY: BARSHA SUBUDHI RAY
SUBJECT:CSA	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1 <sup>ST</sup>	1 <sup>ST</sup>	Basic structure of computer hardware
	2 <sup>ND</sup>	Basic Structure of computer hardware
	3 <sup>RD</sup>	Functional Units
	4 <sup>TH</sup>	Computer components
2 <sup>ND</sup>	1 <sup>ST</sup>	Performance measures
	2 <sup>ND</sup>	Memory addressing & Operations
	3 <sup>RD</sup>	Instructions & instruction Sequencing
	4 <sup>TH</sup>	Fundamentals to instructions
3 <sup>RD</sup>	1 <sup>ST</sup>	Fundamentals to instructions
	2 <sup>ND</sup>	Operands
	3 <sup>RD</sup>	Op Codes
	4 <sup>TH</sup>	Instruction formats
4 <sup>TH</sup>	1 <sup>ST</sup>	Addressing Modes
	2 <sup>ND</sup>	Processor System
	3 <sup>RD</sup>	Register Files
	4 <sup>TH</sup>	Complete instruction execution
5 <sup>TH</sup>	1 <sup>ST</sup>	Complete instruction execution
	2 <sup>ND</sup>	Fetch
	3 <sup>RD</sup>	Decode
	4 <sup>TH</sup>	Execution
6 <sup>TH</sup>	1 <sup>ST</sup>	Hardware control
	2 <sup>ND</sup>	Hardware control
	3 <sup>RD</sup>	Micro program control
	4 <sup>TH</sup>	Memory System
7 <sup>TH</sup>	1 <sup>ST</sup>	Memory characteristics
	2 <sup>ND</sup>	Memory characteristics
	3 <sup>RD</sup>	Memory hierarchy
	4 <sup>TH</sup>	Memory hierarchy
8 <sup>TH</sup>	1 <sup>ST</sup>	RAM and ROM organization
	2 <sup>ND</sup>	Interleaved Memory
	3 <sup>RD</sup>	Cache memory
	4 <sup>TH</sup>	Cache memory
9 <sup>TH</sup>	1 <sup>ST</sup>	Virtual memory
	2 <sup>ND</sup>	Input – Output System
	3 <sup>RD</sup>	Input - Output Interface
	4 <sup>TH</sup>	Modes of Data transfer

10 <sup>TH</sup>	1 <sup>ST</sup>	Modes of Data transfer
	2 <sup>ND</sup>	Programmed I/O Transfer
	3 <sup>RD</sup>	Programmed I/O Transfer
	4 <sup>TH</sup>	Interrupt driven I/O
11 <sup>TH</sup>	1 <sup>ST</sup>	Interrupt driven I/O
	2 <sup>ND</sup>	DMA
	3 <sup>RD</sup>	I/O Processor
	4 <sup>TH</sup>	I/O Interface & Bus architecture
12 <sup>TH</sup>	1 <sup>ST</sup>	Bus and System Bus
	2 <sup>ND</sup>	Types of System Bus
	3 <sup>RD</sup>	Data Bus
	4 <sup>TH</sup>	Address Bus Control
13 <sup>TH</sup>	1 <sup>ST</sup>	Bus Structure
	2 <sup>ND</sup>	Bus Structure
	3 <sup>RD</sup>	Basic Parameters of Bus design
	4 <sup>TH</sup>	SCSI
14 <sup>TH</sup>	1 <sup>ST</sup>	USB
	2 <sup>ND</sup>	. Parallel Processing
	3 <sup>RD</sup>	Parallel Processing
	4 <sup>TH</sup>	Linear Pipeline
15 <sup>TH</sup>	1 <sup>ST</sup>	Multiprocessor
	2 <sup>ND</sup>	Multiprocessor
	3 <sup>RD</sup>	Flynn"s Classification
	4 <sup>TH</sup>	Flynn"s Classification
<b>DISCIPLINE: IT</b>	<b>SEMESTER:3RD</b>	<b>NAME OF THE TEACHING FACULTY: ABHIRAM BEHERA</b>
<b>SUBJECT:DS</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Explain Data, Information, data types
	2 <sup>ND</sup>	Define data structure & Explain different operations Explain Abstract data types
	3 <sup>RD</sup>	Discuss Algorithm & its complexity
	4 <sup>TH</sup>	Explain Time, space tradeoff
2 <sup>ND</sup>	1 <sup>ST</sup>	Explain Basic Terminology, Storing Strings
	2 <sup>ND</sup>	State Character Data Type, Discuss String Operations
	3 <sup>RD</sup>	Discuss String Operations
	4 <sup>TH</sup>	Give Introduction about array, Discuss Linear arrays, representation of linear array In memory
3 <sup>RD</sup>	1 <sup>ST</sup>	Explain traversing linear arrays, inserting & deleting elements
	2 <sup>ND</sup>	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row

		major order & column major order), and pointers
	3 <sup>RD</sup>	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
	4 <sup>TH</sup>	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
4 <sup>TH</sup>	1 <sup>ST</sup>	Explain sparse matrices.
	2 <sup>ND</sup>	Explain sparse matrices.
	3 <sup>RD</sup>	Give fundamental idea about Stacks and queues
	4 <sup>TH</sup>	Give fundamental idea about Stacks and queues
5 <sup>TH</sup>	1 <sup>ST</sup>	Explain array representation of Stack
	2 <sup>ND</sup>	Explain arithmetic expression ,polish notation & Conversion
	3 <sup>RD</sup>	Explain arithmetic expression ,polish notation & Conversion
	4 <sup>TH</sup>	Discuss application of stack, recursion
6 <sup>TH</sup>	1 <sup>ST</sup>	Discuss queues, circular queue, priority queues.
	2 <sup>ND</sup>	Discuss queues, circular queue, priority queues.
	3 <sup>RD</sup>	Give Introduction about linked list Explain representation of linked list in memory
	4 <sup>TH</sup>	Discuss traversing a linked list, searching
7 <sup>TH</sup>	1 <sup>ST</sup>	Discuss traversing a linked list, searching,
	2 <sup>ND</sup>	Discuss garbage collection.
	3 <sup>RD</sup>	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	4 <sup>TH</sup>	Explain Insertion into a linked list, Deletion from a linked list, header linked list
8 <sup>TH</sup>	1 <sup>ST</sup>	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	2 <sup>ND</sup>	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	3 <sup>RD</sup>	Explain Basic terminology of Tree
	4 <sup>TH</sup>	Explain Basic terminology of Tree
9 <sup>TH</sup>	1 <sup>ST</sup>	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	2 <sup>ND</sup>	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	3 <sup>RD</sup>	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	4 <sup>TH</sup>	Explain insertion & deletion in a binary search trees
10 <sup>TH</sup>	1 <sup>ST</sup>	Explain insertion & deletion in a binary search trees
	2 <sup>ND</sup>	Explain insertion & deletion in a binary search trees
	3 <sup>RD</sup>	Explain graph terminology & its representation,
	4 <sup>TH</sup>	Explain graph terminology & its representation,

11 <sup>TH</sup>	1 <sup>ST</sup>	Explain graph terminology & its representation,
	2 <sup>ND</sup>	Explain Adjacency Matrix, Path Matrix
	3 <sup>RD</sup>	Explain Adjacency Matrix, Path Matrix
	4 <sup>TH</sup>	Explain Adjacency Matrix, Path Matrix
12 <sup>TH</sup>	1 <sup>ST</sup>	Discuss Algorithms for Bubble sort, Quick sort,
	2 <sup>ND</sup>	Discuss Algorithms for Bubble sort, Quick sort,
	3 <sup>RD</sup>	Discuss Algorithms for Bubble sort, Quick sort,
	4 <sup>TH</sup>	Merging
13 <sup>TH</sup>	1 <sup>ST</sup>	Merging
	2 <sup>ND</sup>	Linear searching, Binary searching
	3 <sup>RD</sup>	Linear searching, Binary searching
	4 <sup>TH</sup>	Linear searching, Binary searching
14 <sup>TH</sup>	1 <sup>ST</sup>	Discuss Different types of files organization and their access method,
	2 <sup>ND</sup>	Discuss Different types of files organization and their access method,
	3 <sup>RD</sup>	Discuss Different types of files organization and their access method,
	4 <sup>TH</sup>	Discuss Different types of files organization and their access method,
15 <sup>TH</sup>	1 <sup>ST</sup>	Introduction to Hashing, Hash function, collision resolution, open addressing.
	2 <sup>ND</sup>	Introduction to Hashing, Hash function, collision resolution, open addressing.
	3 <sup>RD</sup>	Introduction to Hashing, Hash function, collision resolution, open addressing.
	4 <sup>TH</sup>	Introduction to Hashing, Hash function, collision resolution, open addressing.
<b>DISCIPLINE: IT</b>	<b>SEMESTER:3RD</b>	<b>NAME OF THE TEACHING FACULTY: SUMITRA MAHAPATRA</b>
<b>SUBJECT:DE</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Basics of Digital Electronics
	2 <sup>ND</sup>	Number System-Binary, Octal, Decimal, Hexadecimal - Conversion from one system to another number system.
	3 <sup>RD</sup>	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1"s & 2"s complement of Binary numbers& Subtraction using complements method
	4 <sup>TH</sup>	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1"s & 2"s complement of Binary numbers& Subtraction using complements method

2 <sup>ND</sup>	1 <sup>ST</sup>	Digital Code & its application & distinguish between weighted & non-weight Code, Binary codes, excess-3 and Gray codes.
	2 <sup>ND</sup>	Digital Code & its application & distinguish between weighted & non-weight Code, Binary codes, excess-3 and Gray codes.
	3 <sup>RD</sup>	Logic gates: AND,OR,NOT,NAND,NOR, Exclusive-OR, Exclusive-NOR--Symbol, Function, expression, truth table & timing diagram
	4 <sup>TH</sup>	Logic gates: AND,OR,NOT,NAND,NOR, Exclusive-OR, Exclusive-NOR--Symbol, Function, expression, truth table & timing diagram
3 <sup>RD</sup>	1 <sup>ST</sup>	Universal Gates& its Realisation
	2 <sup>ND</sup>	Boolean algebra, Boolean expressions, Demorgan"s Theorems.
	3 <sup>RD</sup>	Represent Logic Expression: SOP & POS forms
	4 <sup>TH</sup>	Karnaugh map (3 & 4 Variables)&Minimization of logical expressions ,don"t care conditions
4 <sup>TH</sup>	1 <sup>ST</sup>	Combinational Logic Circuits
	2 <sup>ND</sup>	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
	3 <sup>RD</sup>	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
	4 <sup>TH</sup>	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
5 <sup>TH</sup>	1 <sup>ST</sup>	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	2 <sup>ND</sup>	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	3 <sup>RD</sup>	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	4 <sup>TH</sup>	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
6 <sup>TH</sup>	1 <sup>ST</sup>	Seven segment Decoder
	2 <sup>ND</sup>	Seven segment Decoder
	3 <sup>RD</sup>	Seven segment Decoder
	4 <sup>TH</sup>	Seven segment Decoder
7 <sup>TH</sup>	1 <sup>ST</sup>	Sequential logic Circuits
	2 <sup>ND</sup>	Principle of flip-flops operation, its Types
	3 <sup>RD</sup>	Principle of flip-flops operation, its Types
	4 <sup>TH</sup>	SR Flip Flop using NAND,NOR Latch (un clocked)
8 <sup>TH</sup>	1 <sup>ST</sup>	SR Flip Flop using NAND,NOR Latch (un clocked)
	2 <sup>ND</sup>	SR Flip Flop using NAND,NOR Latch (un clocked)
	3 <sup>RD</sup>	SR Flip Flop using NAND,NOR Latch (un clocked)
	4 <sup>TH</sup>	C l o c k e d SR,D,JK,T,JK Master Slave flip-flops- Symbol, logic Circuit, truth table and applications
9 <sup>TH</sup>	1 <sup>ST</sup>	C l o c k e d SR,D,JK,T,JK Master Slave flip-flops-

		Symbol, logic Circuit, truth table and applications
	2 <sup>ND</sup>	C l o c k e d SR,D,JK,T,JK Master Slave flip-flops- Symbol, logic Circuit, truth table and applications
	3 <sup>RD</sup>	Concept of Racing and how it can be avoided.
	4 <sup>TH</sup>	Concept of Racing and how it can be avoided.
10 <sup>TH</sup>	1 <sup>ST</sup>	Registers, Memories & PLD
	2 <sup>ND</sup>	Shift Registers-Serial in Serial -out, Serial- in Parallel- out, Parallel in serial out and Parallel in parallel out
	3 <sup>RD</sup>	Shift Registers-Serial in Serial -out, Serial- in Parallel- out, Parallel in serial out and Parallel in parallel out
	4 <sup>TH</sup>	Universal shift registers-Applications
11 <sup>TH</sup>	1 <sup>ST</sup>	Types of Counter & applications
	2 <sup>ND</sup>	Binary counter, Asynchronous ripple counter (UP & DOWN), Decade counter. Synchronous counter, Ring Counter.
	3 <sup>RD</sup>	Concept of memories-RAM, ROM, static RAM, dynamic RAM,PS RAM
	4 <sup>TH</sup>	Basic concept of PLD & applications
12 <sup>TH</sup>	1 <sup>ST</sup>	A/D and D/A Converters
	2 <sup>ND</sup>	Necessity of A/D and D/A converters.
	3 <sup>RD</sup>	D/A conversion using weighted resistors methods.
	4 <sup>TH</sup>	D/A conversion using R-2R ladder (Weighted resistors) network.
13 <sup>TH</sup>	1 <sup>ST</sup>	D/A conversion using R-2R ladder (Weighted resistors) network.
	2 <sup>ND</sup>	A/D conversion using counter method.
	3 <sup>RD</sup>	A/D conversion using Successive approximate method
	4 <sup>TH</sup>	LOGIC FAMILIES
14 <sup>TH</sup>	1 <sup>ST</sup>	Various logic families &categories according to the IC fabrication process
	2 <sup>ND</sup>	Various logic families &categories according to the IC fabrication process
	3 <sup>RD</sup>	Various logic families &categories according to the IC fabrication process
	4 <sup>TH</sup>	Characteristics of Digital ICs- Propagation Delay, fan- out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
15 <sup>TH</sup>	1 <sup>ST</sup>	Characteristics of Digital ICs- Propagation Delay, fan- out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	2 <sup>ND</sup>	Characteristics of Digital ICs- Propagation Delay, fan- out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	3 <sup>RD</sup>	Features, circuit operation &various applications of

		TTL(NAND), CMOS (NAND & NOR)
	4 <sup>TH</sup>	Features, circuit operation & various applications of TTL(NAND), CMOS (NAND & NOR)
<b>DISCIPLINE: IT</b>	<b>SEMESTER:3RD</b>	<b>NAME OF THE TEACHING FACULTY: REETANJALI PANDA</b>
<b>SUBJECT:OOM</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Programming Languages
	2 <sup>ND</sup>	Object Oriented Programming
	3 <sup>RD</sup>	OOPS concepts and terminology
	4 <sup>TH</sup>	Benefit of OOPS
2 <sup>ND</sup>	1 <sup>ST</sup>	Application of OOPS
	2 <sup>ND</sup>	NTRODUCTION TO JAVA 2.1 What is Java
	3 <sup>RD</sup>	Execution Model of Java 2.3 The Java Virtual Machine
	4 <sup>TH</sup>	A First Java Program 2.5 Variables and Data types
3 <sup>RD</sup>	1 <sup>ST</sup>	Primitive Datatypes & Declarations
	2 <sup>ND</sup>	Numeric and Character Literals 2.8 String Literals
	3 <sup>RD</sup>	Arrays, Non-Primitive Datatypes
	4 <sup>TH</sup>	Casting and Type Casting
4 <sup>TH</sup>	1 <sup>ST</sup>	Widening and Narrowing Conversions
	2 <sup>ND</sup>	Operators and Expressions
	3 <sup>RD</sup>	Control Flow Statements
	4 <sup>TH</sup>	OBJECTS AND CLASSES 3.1 Concept and Syntax of class
5 <sup>TH</sup>	1 <sup>ST</sup>	Defining a Class 3.3 Concept and Syntax of Methods
	2 <sup>ND</sup>	Defining Methods 3.5 Creating an Object
	3 <sup>RD</sup>	Accessing Class Members 3.7 Instance Data and Class Data
	4 <sup>TH</sup>	Constructors
6 <sup>TH</sup>	1 <sup>ST</sup>	Access specifiers
	2 <sup>ND</sup>	Access Modifiers
	3 <sup>RD</sup>	Access Control
	4 <sup>TH</sup>	USING JAVA OBJECTS
7 <sup>TH</sup>	1 <sup>ST</sup>	String Builder and String Buffer
	2 <sup>ND</sup>	Methods and Messages
	3 <sup>RD</sup>	Methods and Messages
	4 <sup>TH</sup>	Parameter Passing
8 <sup>TH</sup>	1 <sup>ST</sup>	Comparing and Identifying Objects
	2 <sup>ND</sup>	INHERITANCE
	3 <sup>RD</sup>	Inheritance in Java
	4 <sup>TH</sup>	Use of Inheritance
9 <sup>TH</sup>	1 <sup>ST</sup>	Types of Inheritance
	2 <sup>ND</sup>	Single Inheritance
	3 <sup>RD</sup>	Multi-level Inheritance

	4 <sup>TH</sup>	Hierarchical Inheritance
10 <sup>TH</sup>	1 <sup>ST</sup>	Hybrid Inheritance
	2 <sup>ND</sup>	POLYMORPHISM
	3 <sup>RD</sup>	Types of Polymorphism
	4 <sup>TH</sup>	Types of Polymorphism
11 <sup>TH</sup>	1 <sup>ST</sup>	Method Overloading
	2 <sup>ND</sup>	Method Overloading
	3 <sup>RD</sup>	Run time Polymorphism
	4 <sup>TH</sup>	Run time Polymorphism
12 <sup>TH</sup>	1 <sup>ST</sup>	Method Overriding
	2 <sup>ND</sup>	PACKAGES: PUTTING CLASSES TOGETHER 7.1 Introduction
	3 <sup>RD</sup>	Java API Packages 7.3 Using System Packages
	4 <sup>TH</sup>	Naming Convention 7.5 Creating Packages
13 <sup>TH</sup>	1 <sup>ST</sup>	Accessing a Package 7.7 Using a Package
	2 <sup>ND</sup>	Adding a Class to Package
	3 <sup>RD</sup>	Hiding Classes 7.10 Static Import
	4 <sup>TH</sup>	JAVA FILES AND I/O 05 8.1 What is a stream
14 <sup>TH</sup>	1 <sup>ST</sup>	Reading and writing to files(only txt files 8.3 Input and Output Stream
	2 <sup>ND</sup>	Manipulating Input data 8.5 Opening and Closing Streams
	3 <sup>RD</sup>	Predefined streams
	4 <sup>TH</sup>	File handling Classes and Methods
15 <sup>TH</sup>	1 <sup>ST</sup>	EXCEPTION HANDLING 9.1 Exceptions Overview
	2 <sup>ND</sup>	Exception Keywords 9.3 Catching Exceptions
	3 <sup>RD</sup>	Using Finally Statement 9.5 Exception Methods 9.6 Declaring Exceptions
	4 <sup>TH</sup>	Defining and throwing exceptions 9.8 Errors and Runtime Exceptions
<b>DISCIPLINE: IT</b>	<b>SEMESTER:3RD</b>	<b>NAME OF THE TEACHING FACULTY: SUJATA KUMARI ACHARYA</b>
<b>SUBJECT: ES</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	The Multidisciplinary nature of environmental studies:
	2 <sup>ND</sup>	Definition
	3 <sup>RD</sup>	scope and importance
	4 <sup>TH</sup>	Need for public awareness
2 <sup>ND</sup>	1 <sup>ST</sup>	Natural Resources: Renewable and non-renewable resources: a) Natural resources and associated problems.
	2 <sup>ND</sup>	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining,damsandtheireffectsonforestsandtribal people.
	3 <sup>RD</sup>	Forest resources: Use and over-exploitation,

		deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
	4 <sup>TH</sup>	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam`s benefits and problems.
3 <sup>RD</sup>	1 <sup>ST</sup>	. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam`s benefits and problems.
	2 <sup>ND</sup>	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	3 <sup>RD</sup>	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	4 <sup>TH</sup>	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.
4 <sup>TH</sup>	1 <sup>ST</sup>	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
	2 <sup>ND</sup>	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. B) Role of individual in conservation of natural resources. C) Equitable use of resources for sustainable life styles.
	3 <sup>RD</sup>	Systems: Concept of an eco-system.
	4 <sup>TH</sup>	Structure and function of an eco-system.
5 <sup>TH</sup>	1 <sup>ST</sup>	Producers, consumers, decomposers. 3.4. Energy flow in the eco systems.
	2 <sup>ND</sup>	Ecological succession.
	3 <sup>RD</sup>	Food chains, food webs and ecological pyramids.
	4 <sup>TH</sup>	Introduction, types, characteristic features, structure and function of the following eco system:
6 <sup>TH</sup>	1 <sup>ST</sup>	Forest ecosystem:
	2 <sup>ND</sup>	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	3 <sup>RD</sup>	Biodiversity and it`s Conservation: 4.1. Introduction- Definition: genetics, species and ecosystem diversity.
	4 <sup>TH</sup>	Biogeographically classification of India.
7 <sup>TH</sup>	1 <sup>ST</sup>	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
	2 <sup>ND</sup>	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
	3 <sup>RD</sup>	Biodiversity at global, national and local level.
	4 <sup>TH</sup>	Biodiversity at global, national and local level.

8 <sup>TH</sup>	1 <sup>ST</sup>	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
	2 <sup>ND</sup>	Environmental Pollution: 5.1. Definition Causes, effects and control measures of:
	3 <sup>RD</sup>	a) Air pollution. B) Water pollution.
	4 <sup>TH</sup>	c) Soil pollution d) Marine pollution
9 <sup>TH</sup>	1 <sup>ST</sup>	e) Noise pollution.
	2 <sup>ND</sup>	f) Thermal pollution
	3 <sup>RD</sup>	g) Nuclear hazards.
	4 <sup>TH</sup>	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
10 <sup>TH</sup>	1 <sup>ST</sup>	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2 <sup>ND</sup>	Role of an individual in prevention of pollution.
	3 <sup>RD</sup>	Role of an individual in prevention of pollution.
	4 <sup>TH</sup>	Disaster management: Floods, earth quake, cyclone and landslides.
11 <sup>TH</sup>	1 <sup>ST</sup>	Disaster management: Floods, earth quake, cyclone and landslides.
	2 <sup>ND</sup>	Social issues and the Environment:
	3 <sup>RD</sup>	Form unsustainable to sustainable development.
	4 <sup>TH</sup>	Urban problems related to energy.
12 <sup>TH</sup>	1 <sup>ST</sup>	Water conservation, rain water harvesting, water shed management.
	2 <sup>ND</sup>	Resettlement and rehabilitation of people; its problems and concern.
	3 <sup>RD</sup>	Environmental ethics: issue and possible solutions.
	4 <sup>TH</sup>	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
13 <sup>TH</sup>	1 <sup>ST</sup>	Air (prevention and control of pollution) Act.
	2 <sup>ND</sup>	Water (prevention and control of pollution) Act.
	3 <sup>RD</sup>	Public awareness.
	4 <sup>TH</sup>	Human population and the environment:
14 <sup>TH</sup>	1 <sup>ST</sup>	Population growth and variation among nations.
	2 <sup>ND</sup>	Population explosion- family welfare program.
	3 <sup>RD</sup>	Environment and human health.
	4 <sup>TH</sup>	Human rights.
15 <sup>TH</sup>	1 <sup>ST</sup>	Value education
	2 <sup>ND</sup>	Role of information technology in environment and human health.
	3 <sup>RD</sup>	Role of information technology in environment and human health.
	4 <sup>TH</sup>	Role of information technology in environment and human health.
<b>DISCIPLINE:</b>	<b>SEMESTER:3<sup>RD</sup></b>	<b>NAME OF THE TEACHING FACULTY: BARSHA SUBUDHI RAY</b>

<b>IT</b>		<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>SUBJECT:</b> <b>DS LAB</b>	<b>NO.OF DAYS/PER WEEK</b> <b>CLASS ALLOTTED:4</b>	
<b>WEEK</b>	<b>DATE</b>	<b>TOPICS TO BE COVERED AS PER LESSON PLAN</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Implementation of 1D & 2D Array
	2 <sup>ND</sup>	Implementation of 1D & 2D Array
	3 <sup>RD</sup>	Implementation of 1D & 2D Array
	4 <sup>TH</sup>	Implementation of 1D & 2D Array
2 <sup>ND</sup>	1 <sup>ST</sup>	Implementation of Stack
	2 <sup>ND</sup>	Implementation of Stack
	3 <sup>RD</sup>	Implementation of Stack
	4 <sup>TH</sup>	Implementation of Stack
3 <sup>RD</sup>	1 <sup>ST</sup>	Pointer and it"s application.
	2 <sup>ND</sup>	Pointer and it"s application.
	3 <sup>RD</sup>	Pointer and it"s application.
	4 <sup>TH</sup>	. Pointer and it"s application.
4 <sup>TH</sup>	1 <sup>ST</sup>	Structure & Union
	2 <sup>ND</sup>	Structure & Union
	3 <sup>RD</sup>	Structure & Union
	4 <sup>TH</sup>	Structure & Union
5 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of insertion & deletion in Stack
	2 <sup>ND</sup>	Implementation of insertion & deletion in Stack
	3 <sup>RD</sup>	Implementation of insertion & deletion in Stack
	4 <sup>TH</sup>	Implementation of insertion & deletion in Stack

6 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of insertion & deletion in Queue
	2 <sup>ND</sup>	Implementation of insertion & deletion in Queue
	3 <sup>RD</sup>	Implementation of insertion & deletion in Queue
	4 <sup>TH</sup>	Implementation of insertion & deletion in Queue
7 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of insertion & deletion in Linked list
	2 <sup>ND</sup>	Implementation of insertion & deletion in Linked list
	3 <sup>RD</sup>	Implementation of insertion & deletion in Linked list
	4 <sup>TH</sup>	Implementation of insertion & deletion in Linked list
8 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Bubble sort
	2 <sup>ND</sup>	Implementation of Bubble sort
	3 <sup>RD</sup>	Implementation of Bubble sort
	4 <sup>TH</sup>	Implementation of Bubble sort
9 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Quick sort
	2 <sup>ND</sup>	Implementation of Quick sort
	3 <sup>RD</sup>	Implementation of Quick sort
	4 <sup>TH</sup>	Implementation of Quick sort
10 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Binary tree traversal
	2 <sup>ND</sup>	Implementation of Binary tree traversal
	3 <sup>RD</sup>	Implementation of Binary tree traversal
	4 <sup>TH</sup>	Implementation of Binary tree traversal
11 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Linear search
	2 <sup>ND</sup>	Implementation of Linear search
	3 <sup>RD</sup>	Implementation of Linear search
	4 <sup>TH</sup>	Implementation of Linear search

12 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Binary search
	2 <sup>ND</sup>	Implementation of Binary search
	3 <sup>RD</sup>	Implementation of Binary search
	4 <sup>TH</sup>	Implementation of Binary search
13 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Binary search
	2 <sup>ND</sup>	Implementation of Binary search
	3 <sup>RD</sup>	Implementation of Binary search
	4 <sup>TH</sup>	Implementation of Binary search
14 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Binary search
	2 <sup>ND</sup>	Implementation of Binary search
	3 <sup>RD</sup>	Implementation of Binary search
	4 <sup>TH</sup>	Implementation of Binary search
15 <sup>TH</sup>	1 <sup>ST</sup>	Implementation of Binary search
	2 <sup>ND</sup>	Implementation of Binary search
	3 <sup>RD</sup>	Implementation of Binary search
	4 <sup>TH</sup>	Implementation of Binary search
<b>DISCIPLINE: IT</b>	<b>SEMESTER:3RD</b>	<b>NAME OF THE TEACHING FACULTY: NAYANA PATEL</b>
<b>SUBJECT:OOP LAB</b>	<b>NO.OF DAYS/PER WEEK</b> <b>CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>st</sup>	1 <sup>st</sup>	1. Write a Java program to print 'Hello' on screen and then print your name on a separate line.
	2 <sup>nd</sup>	2. Write a Java program to print the sum of two numbers.
	3 <sup>rd</sup>	3. Write a Java program that takes a number as input and prints its multiplication table upto 10.

	4 <sup>th</sup>	4. Write a Java program to print the area and perimeter of a rectangle
2 <sup>nd</sup>	1 <sup>st</sup>	5. Write a Java program to swap two variables.
	2 <sup>nd</sup>	6. Write a Java program to convert a decimal number to binary number.
	3 <sup>rd</sup>	7. Write a Java program to compare two numbers.
	4 <sup>th</sup>	8. Write a Java program and compute the sum of the digits of an integer.
3 <sup>rd</sup>	1 <sup>st</sup>	9. Write a Java program to count the letters, spaces, numbers and other characters of an input string.
	2 <sup>nd</sup>	10. Write a Java program to reverse a string.
	3 <sup>rd</sup>	11. Write a Java program to accept a number and check the number is even or not. Prints 1 if the number is even or 0 if the number is odd.
	4 <sup>th</sup>	12. Write a Java program that accepts two integer values from the user and return the larger values. However if the two values are the same, return 0 and return the smaller value if the two values have the same remainder when divided by 6
4 <sup>th</sup>	1 <sup>st</sup>	13. Write a Java program to get the larger value between first and last element of an array (length 3) of integers .
	2 <sup>nd</sup>	14. Design a class to represent a bank account. Include the following members : Data members: Name of the depositor• Account Number• Type of account• Balance amount in the account•
	3 <sup>rd</sup>	Methods: To assign initial values• To deposit an amount• To withdraw an amount• To display the name and balance•
	4 <sup>th</sup>	Methods: To assign initial values• To deposit an amount• To withdraw an amount• To display the name and balance•
5 <sup>th</sup>	1 <sup>st</sup>	15. Given are two one-dimensional arrays, A and B which are sorted in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.

	2 <sup>nd</sup>	15. Given are two one-dimensional arrays, A and B which are sorted in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.
	3 <sup>rd</sup>	15. Given are two one-dimensional arrays, A and B which are sorted in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.
	4 <sup>th</sup>	15. Given are two one-dimensional arrays, A and B which are sorted in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.
6 <sup>h</sup>	1 <sup>st</sup>	16. Write a java program implementing multiple inheritance.
	2 <sup>nd</sup>	16. Write a java program implementing multiple inheritance.
	3 <sup>rd</sup>	16. Write a java program implementing multiple inheritance.
	4 <sup>th</sup>	16. Write a java program implementing multiple inheritance.
7 <sup>th</sup>	1 <sup>st</sup>	17. Write a java program implementing package.
	2 <sup>nd</sup>	17. Write a java program implementing package.
	3 <sup>rd</sup>	17. Write a java program implementing package.
	4 <sup>th</sup>	17. Write a java program implementing package.
8 <sup>th</sup>	1 <sup>st</sup>	18. Write a java program to read a file line by line and print the line on the output screen.
	2 <sup>nd</sup>	18. Write a java program to read a file line by line and print the line on the output screen.
	3 <sup>rd</sup>	18. Write a java program to read a file line by line and print the line on the output screen.
	4 <sup>th</sup>	18. Write a java program to read a file line by line and print the line on the output screen.
9 <sup>th</sup>	1 <sup>st</sup>	19. Write a java program to read content from one file and write it into another file.

	2 <sup>nd</sup>	19. Write a java program to read content from one file and write it into another file.
	3 <sup>rd</sup>	19. Write a java program to read content from one file and write it into another file.
	4 <sup>th</sup>	19. Write a java program to read content from one file and write it into another file.
10 <sup>th</sup>	1 <sup>st</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	2 <sup>nd</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	3 <sup>rd</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	4 <sup>th</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
11 <sup>th</sup>	1 <sup>st</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	2 <sup>nd</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	3 <sup>rd</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.
	4 <sup>th</sup>	20. Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses this exception.

12 <sup>th</sup>	1 <sup>st</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	2 <sup>nd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	3 <sup>rd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	4 <sup>th</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
13 <sup>th</sup>	1 <sup>st</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	2 <sup>nd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	3 <sup>rd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	4 <sup>th</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
14 <sup>th</sup>	1 <sup>st</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	2 <sup>nd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	3 <sup>rd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	4 <sup>th</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
15 <sup>th</sup>	1 <sup>st</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	2 <sup>nd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	3 <sup>rd</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
	4 <sup>th</sup>	21. Develop a java project for percentage calculator/temperature conversion tool.
<b>DISCIPLINE: IT</b>	<b>SEMESTER: 3rd</b>	<b>NAME OF THE TEACHING FACULTY: SUJATA KUMARI ACHARYA</b>
<b>SUBJECT: OA LAB</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 01/08/23 TO DATE: 30/11/23</b> <b>NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	Create a news-paper document with at least 200

		<p>words,</p> <p>a. Use margins as, top:1.5, bottom:2, left:2, right:1 inches.</p> <p>b. Use heading "Gandhi Jayanti", font size: 16, font color: red, font face: Arial Black.</p>
1 <sup>ST</sup>	1 <sup>ST</sup>	<p>c. With first letter "dropped" (use drop cap option) of the first paragraph containing a picture at the right side</p> <p>d. Use three columns from the second paragraph onwards till the half of the page.</p> <p>e. Then use heading "Computer basics" f. Create paragraph using two columns till the end of the page</p>
	2 <sup>ND</sup>	<p>Create a Mathematical question paper using, at least five equations</p> <p>a. With fractions, exponents, summation function</p>
	3 <sup>RD</sup>	<p>Create a Mathematical question paper using, at least five equations</p> <p>a. With fractions, exponents, summation function</p>
	4 <sup>TH</sup>	<p>b. With at least one „m*n" matrix</p>
2 <sup>ND</sup>	1 <sup>ST</sup>	<p>c. Basic mathematical and geometric operators.</p>
	2 <sup>ND</sup>	<p>d. Use proper text formatting, page color and page border</p>
	3 <sup>RD</sup>	<p>Create a flowchart using,</p> <p>a. Proper shapes like ellipse, arrows, rectangle, and parallelogram.</p>
	4 <sup>TH</sup>	<p>Create a flowchart using,</p> <p>a. Proper shapes like ellipse, arrows, rectangle, and parallelogram.</p>
3 <sup>RD</sup>	1 <sup>ST</sup>	<p>b. Use grouping to group all the parts of the flowchart into one single object</p>
	2 <sup>ND</sup>	<p>Create a table using table menu with,</p> <p>a. At least 5 columns and 10 rows</p>
	3 <sup>RD</sup>	<p>b. Merge the first row into one cell.</p>
	4 <sup>TH</sup>	<p>c. Merge the second row into one cell, then split the second row into three cells</p>
4 <sup>TH</sup>	1 <sup>ST</sup>	<p>d. Use proper table border and color.</p>
	2 <sup>ND</sup>	<p>e. Insert proper content into the table with proper text formatting</p>
	3 <sup>RD</sup>	<p>Create a table using two columns,</p> <p>a. The left column contains all the short-cut keys and right side column contains the function of the short-cut keys.</p>
	4 <sup>TH</sup>	<p>Create a table using two columns,</p> <p>a. The left column contains all the short-cut keys and right side column contains the function of the short-cut keys.</p>
5 <sup>TH</sup>	1 <sup>ST</sup>	<p>b. Insert a left column using layout option. Name the</p>

		heading as Serial No
	2 <sup>ND</sup>	<p>Create two letters with the following conditions in Ms Word and find the difference.</p> <p>a. Write a personal letter to your friend using at least 100 words and two paragraphs. The date must be in top-right corner. Use „justify“ text alignment and 1.5 line spacing for the body of the letter. Letter must contain proper salutation and closing.</p>
	3 <sup>RD</sup>	<p>Create two letters with the following conditions in Ms Word and find the difference.</p> <p>a. Write a personal letter to your friend using at least 100 words and two paragraphs. The date must be in top-right corner. Use „justify“ text alignment and 1.5 line spacing for the body of the letter. Letter must contain proper salutation and closing.</p>
	4 <sup>TH</sup>	<p>Create two letters with the following conditions in Ms Word and find the difference.</p> <p>a. Write a personal letter to your friend using at least 100 words and two paragraphs. The date must be in top-right corner. Use „justify“ text alignment and 1.5 line spacing for the body of the letter. Letter must contain proper salutation and closing.</p>
6 <sup>TH</sup>	1 <sup>ST</sup>	<p>Create two letters with the following conditions in Ms Word and find the difference.</p> <p>a. Write a personal letter to your friend using at least 100 words and two paragraphs. The date must be in top-right corner. Use „justify“ text alignment and 1.5 line spacing for the body of the letter. Letter must contain proper salutation and closing.</p>
	2 <sup>ND</sup>	<p>b. Use step by step mail-merge wizard to design a letter. (Mailing <input type="checkbox"/> step by step mail merge wizard <input type="checkbox"/> letters <input type="checkbox"/> start from a template <input type="checkbox"/> select template <input type="checkbox"/> letters <input type="checkbox"/> select proper template <input type="checkbox"/> create new document <input type="checkbox"/> OK)</p>
	3 <sup>RD</sup>	<p>b. Use step by step mail-merge wizard to design a letter. (Mailing <input type="checkbox"/> step by step mail merge wizard <input type="checkbox"/> letters <input checked="" type="checkbox"/> start from a</p>

		template □ select template □ letters □ select proper template □ create new document □ OK)
	4 <sup>TH</sup>	Create a letter, which must be sent to multiple recipients.
7 <sup>TH</sup>	1 <sup>ST</sup>	a. Use Mail-Merge to create the recipient list
	2 <sup>ND</sup>	b. Use excel sheet to enter the recipient
	3 <sup>RD</sup>	c. Start the mail merge using letter and directory format. State the difference
	4 <sup>TH</sup>	Create a table "Student result" with following conditions. a. The heading must contain, Sl. No., Name, Mark1, Mark2, Mark3, Total, average and result with manual entry.
8 <sup>TH</sup>	1 <sup>ST</sup>	b. Use formulas for total and average
	2 <sup>ND</sup>	c. Find the name of the students who has secured the highest and lowest marks.
	3 <sup>RD</sup>	d. Round the average to the nearest highest integer and lowest integer (use ceiling and floor function respectively).
	4 <sup>TH</sup>	Do as directed a. Create a notepad file as per the following fields Sln0 name th1 th2 th3 th4 th5 total % grade
9 <sup>TH</sup>	1 <sup>ST</sup>	b. Import this notepad file into excel sheet using „data from text" option.
	2 <sup>ND</sup>	c. Grade is calculated as, i. If % ≥ 90, then grade A ii. If % ≥ 80 and < 90, then grade B iii. If % ≥ 70 and < 80, then grade C iv. If % ≥ 60 and < 70, then grade D v. If % < 60, then grade F
	3 <sup>RD</sup>	c. Grade is calculated as, i. If % ≥ 90, then grade A ii. If % ≥ 80 and < 90, then grade B iii. If % ≥ 70 and < 80, then grade C iv. If % ≥ 60 and < 70, then grade D v. If % < 60, then grade F
	4 <sup>TH</sup>	Create a sales table using the following data a. Draw the bar-graph to compare the sales of the three items for four years using insert option.
10 <sup>TH</sup>	1 <sup>ST</sup>	b. Draw a line-graph to compare the sales of three items for four years using insert option.
	2 <sup>ND</sup>	c. Draw different pie-charts for the given data using insert option.
	3 <sup>RD</sup>	d. Use condition, to highlight all the cells having value ≥ 1000 with red color (use conditional formatting).
	4 <sup>TH</sup>	Create a power-point presentation with minimum 5 slides.
11 <sup>TH</sup>	1 <sup>ST</sup>	a. The first slide must contain the topic of the

		presentation and name of the presentation.
	2 <sup>ND</sup>	b. Must contain at least one table.
	3 <sup>RD</sup>	c. Must contain at least 5 bullets, 5 numbers
	4 <sup>TH</sup>	d. The heading must be, font size:32, font-face: Arial Rounded MT Bold, font-color: blue.
12 <sup>TH</sup>	1 <sup>ST</sup>	e. The body must be, font size: 24, font-face: Comic Sans MS, font-color: green. f. Last slide must contain „thank you
	2 <sup>ND</sup>	Create a power-point presentation with minimum 10 slides 24
	3 <sup>RD</sup>	a. Use word art to write the heading for each slides.
	4 <sup>TH</sup>	b. Insert at least one clip-art, one picture
13 <sup>TH</sup>	1 <sup>ST</sup>	c. Insert at least one audio and one video d. Hide at least two slides
	2 <sup>ND</sup>	Create a power-point presentation with minimum 5 slides a. Use custom animation option to animate the text; the text must move left to right one line at a time.
	3 <sup>RD</sup>	b. Use proper transition for the slides
	4 <sup>TH</sup>	Create a database “Student” with, a. At least one table named “mark sheet” with field name “student name, roll number, mark1, mark2, mark3, mark4, total”
14 <sup>TH</sup>	1 <sup>ST</sup>	b. The data types are, student name: text, roll number: number, mark1 to mark4: number, total: number. Roll number must be the primary key.
	2 <sup>ND</sup>	c. Enter data in the table. The total must be calculated using update query.
	3 <sup>RD</sup>	d. Use query for sorting the table according to the descending/ascending order of the total marks.
	4 <sup>TH</sup>	With addition to the table above, a. Add an additional field “result” to the “mark sheet” table.
15 <sup>TH</sup>	1 <sup>ST</sup>	b. Enter data for at least 10 students
	2 <sup>ND</sup>	c. Calculate the result for all the students using update queries, if total>=200, then pass, else fail
	3 <sup>RD</sup>	d. Search the students, whose name starts with “sh”.
	4 <sup>TH</sup>	e. Show the names and total marks of the students who have passed the examination

