Lesson plan of 2021-22
(3RD SEMESTER IT)

DISCIPLINE: IT	SEMESTER:3RD	NAME OF THE TEACHING FACULTY: Anuradha Maharana
SUBJECT:CSA	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022 NO.OF WEEKS:15
WEEK	**CLASS DAY**	**THEORY/PRACTICAL TOPICS**
1ST	1ST	Basic structure of computer hardware
	2ND	Basic Structure of computer hardware
	3RD	Functional Units
	4TH	Computer components
2ND	1ST	Performance measures
	2ND	Memory addressing & Operations
	3RD	Instructions & instruction Sequencing
	4TH	Fundamentals to instructions
3RD	1ST	Fundamentals to instructions
	2ND	Operands
	3RD	Op Codes
	4TH	Instruction formats
4TH	1ST	Addressing Modes
	2ND	Processor System
	3RD	Register Files
	4TH	Complete instruction execution
5TH	1ST	Complete instruction execution
	2ND	Fetch
	3RD	Decode
	4TH	Execution
6TH	1ST	Hardware control
	2ND	Hardware control
	3RD	Micro program control
	4TH	Memory System
7TH	1ST	Memory characteristics
	2ND	Memory characteristics
	3RD	Memory hierarchy
	4TH	Memory hierarchy
8TH	1ST	RAM and ROM organization
	2ND	Interleaved Memory
	3RD	Cache memory
	4TH	Cache memory
9TH	1ST	Virtual memory
	2ND	Input – Output System
	3RD	Input - Output Interface
	4TH	Modes of Data transfer

10TH	1ST	Modes of Data transfer
	2ND	Programmed I/O Transfer
	3RD	Programmed I/O Transfer
	4TH	Interrupt driven I/O
11TH	1ST	Interrupt driven I/O
	2ND	DMA
	3RD	I/O Processor
	4TH	I/O Interface & Bus architecture
12TH	1ST	Bus and System Bus
	2ND	Types of System Bus
	3RD	Data Bus
	4TH	Address Bus Control
13TH	1ST	Bus Structure
	2ND	Bus Structure
	3RD	Basic Parameters of Bus design
	4TH	SCSI
14TH	1ST	USB
	2ND	. Parallel Processing
`	3RD	Parallel Processing
	4TH	Linear Pipeline
15TH	1ST	Multiprocessor
	2ND	Multiprocessor
	3RD	Flynn‟s Classification
	4TH	Flynn‟s Classification
DISCIPLINE: IT	**SEMESTER:3RD**	**NAME OF THE TEACHING FACULTY: Sri Abhiram Behera**
SUBJECT:DS	**NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022 NO.OF WEEKS:15**
WEEK	**CLASS DAY**	**THEORY/PRACTICAL TOPICS**
1ST	1ST	Explain Data, Information, data types
	2ND	Define data structure & Explain different operations Explain Abstract data types
	3RD	Discuss Algorithm & its complexity
	4TH	Explain Time, space tradeoff
2ND	1ST	Explain Basic Terminology, Storing Strings
	2ND	State Character Data Type, Discuss String Operations
	3RD	Discuss String Operations
	4TH	Give Introduction about array, Discuss Linear arrays, representation of linear array In memory
3RD	1ST	Explain traversing linear arrays, inserting & deleting elements
	2ND	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row

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

11TH	1ST	Explain graph terminology & its representation,
	2ND	Explain Adjacency Matrix, Path Matrix
	3RD	Explain Adjacency Matrix, Path Matrix
	4TH	Explain Adjacency Matrix, Path Matrix
12TH	1ST	Discuss Algorithms for Bubble sort, Quick sort,
	2ND	Discuss Algorithms for Bubble sort, Quick sort,
	3RD	Discuss Algorithms for Bubble sort, Quick sort,
	4TH	Merging
13TH	1ST	Merging
	2ND	Linear searching, Binary searching
	3RD	Linear searching, Binary searching
	4TH	Linear searching, Binary searching
14TH	1ST	Discuss Different types of files organization and their access method,
	2ND	Discuss Different types of files organization and their access method,
`	3RD	Discuss Different types of files organization and their access method,
	4TH	Discuss Different types of files organization and their access method,
15TH	1ST	Introduction to Hashing, Hash function, collision resolution, open addressing.
	2ND	Introduction to Hashing, Hash function, collision resolution, open addressing.
	3RD	Introduction to Hashing, Hash function, collision resolution, open addressing.
	4TH	Introduction to Hashing, Hash function, collision resolution, open addressing.
DISCIPLINE: IT	**SEMESTER:3RD**	**NAME OF THE TEACHING FACULTY: SRI PABITRA KUMAR MAHARANA**
SUBJECT:DE	**NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022** **NO.OF WEEKS:15**
WEEK	**CLASS DAY**	**THEORY/PRACTICAL TOPICS**
1ST	1ST	Basics of Digital Electronics
	2ND	Number System-Binary, Octal, Decimal, Hexadecimal - Conversion from one system to another number system.
	3RD	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1‟s & 2‟s complement of Binary numbers& Subtraction using complements method
	4TH	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1‟s & 2‟s complement of Binary numbers& Subtraction using complements method
2ND	1ST	Digital Code & its application & distinguish between

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

	2ND	C l o c k e d SR,D,JK,T,JK Master Slave flip-flops-Symbol, logic Circuit, truth table and applications
	3RD	Concept of Racing and how it can be avoided.
	4TH	Concept of Racing and how it can be avoided.
10TH	1ST	Registers, Memories & PLD
	2ND	Shift Registers-Serial in Serial -out, Serial- in Parallel-out, Parallel in serial out and Parallel in parallel out
	3RD	Shift Registers-Serial in Serial -out, Serial- in Parallel-out, Parallel in serial out and Parallel in parallel out
	4TH	Universal shift registers-Applications
11TH	1ST	Types of Counter & applications
	2ND	Binary counter, Asynchronous ripple counter (UP & DOWN), Decade counter. Synchronous counter, Ring Counter.
	3RD	Concept of memories-RAM, ROM, static RAM, dynamic RAM,PS RAM
	4TH	Basic concept of PLD & applications
12TH	1ST	A/D and D/A Converters
	2ND	Necessity of A/D and D/A converters.
	3RD	D/A conversion using weighted resistors methods.
	4TH	D/A conversion using R-2R ladder (Weighted resistors) network.
13TH	1ST	D/A conversion using R-2R ladder (Weighted resistors) network.
	2ND	A/D conversion using counter method.
	3RD	A/D conversion using Successive approximate method
	4TH	LOGIC FAMILIES
14TH	1ST	Various logic families &categories according to the IC fabrication process
	2ND	Various logic families &categories according to the IC fabrication process
`	3RD	Various logic families &categories according to the IC fabrication process
	4TH	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
15TH	1ST	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	2ND	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	3RD	Features, circuit operation &various applications of TTL(NAND), CMOS (NAND & NOR)

	4TH	Features, circuit operation &various applications of TTL(NAND), CMOS (NAND & NOR)
DISCIPLINE:IT	**SEMESTER:3RD**	**NAME OF THE TEACHING FACULTY:SMT Sumitra Mahapatra**
SUBJECT:OOM	**NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022 NO.OF WEEKS:15**
WEEK	**CLASS DAY**	**THEORY/PRACTICAL TOPICS**
1ST	1ST	Programming Languages
	2ND	Object Oriented Programming
	3RD	OOPS concepts and terminology
	4TH	Benefit of OOPS
2ND	1ST	Application of OOPS
	2ND	NTRODUCTION TO JAVA 2.1 What is Java
	3RD	Execution Model of Java 2.3 The Java Virtual Machine
	4TH	A First Java Program 2.5 Variables and Data types
3RD	1ST	Primitive Datatypes & Declarations
	2ND	Numeric and Character Literals 2.8 String Literals
	3RD	Arrays, Non-Primitive Datatypes
	4TH	Casting and Type Casting
4TH	1ST	Widening and Narrowing Conversions
	2ND	Operators and Expressions
	3RD	Control Flow Statements
	4TH	OBJECTS AND CLASSES 3.1 Concept and Syntax of class
5TH	1ST	Defining a Class 3.3 Concept and Syntax of Methods
	2ND	Defining Methods 3.5 Creating an Object
	3RD	Accessing Class Members 3.7 Instance Data and Class Data
	4TH	Constructors
6TH	1ST	Access specifiers
	2ND	Access Modifiers
	3RD	Access Control
	4TH	USING JAVA OBJECTS
7TH	1ST	String Builder and String Buffer
	2ND	Methods and Messages
	3RD	Methods and Messages
	4TH	Parameter Passing
8TH	1ST	Comparing and Identifying Objects
	2ND	INHERITANCE
	3RD	Inheritance in Java
	4TH	Use of Inheritance
9TH	1ST	Types of Inheritance
	2ND	Single Inheritance
	3RD	Multi-level Inheritance
	4TH	Hierarchical Inheritance

10TH	1ST	Hybrid Inheritance
	2ND	POLYMORPHISM
	3RD	Types of Polymorphism
	4TH	Types of Polymorphism
11TH	1ST	Method Overloading
	2ND	Method Overloading
	3RD	Run time Polymorphism
	4TH	Run time Polymorphism
12TH	1ST	Method Overriding
	2ND	PACKAGES: PUTTING CLASSES TOGETHER 7.1 Introduction
	3RD	Java API Packages 7.3 Using System Packages
	4TH	Naming Convention 7.5 Creating Packages
13TH	1ST	Accessing a Package 7.7 Using a Package
	2ND	Adding a Class to Package
	3RD	Hiding Classes 7.10 Static Import
	4TH	JAVA FILES AND I/O 05 8.1 What is a stream
14TH	1ST	Reading and writing to files(only txt files 8.3 Input and Output Stream
	2ND	Manipulating Input data 8.5 Opening and Closing Streams
`	3RD	Predefined streams
	4TH	File handling Classes and Methods
15TH	1ST	EXCEPTION HANDLING 9.1 Exceptions Overview
	2ND	Exception Keywords 9.3 Catching Exceptions
	3RD	Using Finally Statement 9.5 Exception Methods 9.6 Declaring Exceptions
	4TH	Defining and throwing exceptions 9.8 Errors and Runtime Exceptions
DISCIPLINE:IT	**SEMESTER:3RD**	**NAME OF THE TEACHING FACULTY: Sri Lakshmi Dhar Sethy**
SUBJECT: ES	**NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022** **NO.OF WEEKS:15**
WEEK	**CLASS DAY**	**THEORY/PRACTICAL TOPICS**
1ST	1ST	The Multidisciplinary nature of environmental studies:
	2ND	Definition
	3RD	scope and importance
	4TH	Need for public awareness
2ND	1ST	Natural Resources: Renewable and non-renewable resources: a) Natural resources and associated problems.
	2ND	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining,damsandtheireffectsonforestsandtribal people.
	3RD	Forest resources: Use and over-exploitation,

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

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

CSE		**Panigrahi &Sri. Abhiram Behera**
SUBJECT: **DS LAB**	**NO.OF DAYS/PER WEEK CLASS ALLOTTED:4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022** **NO.OF WEEKS:15**
WEEK	**DATE**	TOPICS TO BE COVERED AS PER LESSON PLAN
1ST	**1ST**	Implementation of 1D & 2D Array
	2ND	Implementation of 1D & 2D Array
	3RD	Implementation of 1D & 2D Array
	4TH	Implementation of 1D & 2D Array
2ND	**1ST**	Implementation of Stack
	2ND	Implementation of Stack
	3RD	Implementation of Stack
	4TH	Implementation of Stack
3RD	**1ST**	Pointer and it‟s application.
	2ND	Pointer and it‟s application.
	3RD	Pointer and it‟s application.
	4TH	. Pointer and it‟s application.
4TH	**1ST**	Structure & Union
	2ND	Structure & Union
	3RD	Structure & Union
	4TH	Structure & Union
5TH	**1ST**	Implementation of insertion & deletion in Stack
	2ND	Implementation of insertion & deletion in Stack
	3RD	Implementation of insertion & deletion in Stack
	4TH	Implementation of insertion & deletion in Stack

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

12TH	**1ST**	Implementation of Binary search
	2ND	Implementation of Binary search
	3RD	Implementation of Binary search
	4TH	Implementation of Binary search
13TH	**1ST**	Implementation of Binary search
	2ND	Implementation of Binary search
	3RD	Implementation of Binary search
	4TH	Implementation of Binary search
14TH	**1ST**	Implementation of Binary search
	2ND	Implementation of Binary search
	3RD	Implementation of Binary search
	4TH	Implementation of Binary search
15TH	**1ST**	Implementation of Binary search
	2ND	Implementation of Binary search
	3RD	Implementation of Binary search
	4TH	Implementation of Binary search
DISCIPLINE:CSE/IT	**SEMESTER:3RD**	**NAME OF THE TEACHING FACULTY: Smt Nayana Patel & Smt K Tanaya Acharya**
SUBJECT:OOP LAB	**NO.OF DAYS/PER WEEK** **CLASS ALLOTTED:4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE:08/01/2022 NO.OF WEEKS:15**
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1st	1st	Write a Java program to print 'Hello' on screen and then print your name on a separate line.
	2nd	Write a Java program to print the sum of two numbers.
	3rd	Write a Java program that takes a number as input and prints its multiplication table upto

		10.
	4th	Write a Java program to print the area and perimeter of a rectangle
2nd	1st	Write a Java program to swap two variables.
	2nd	Write a Java program to convert a decimal number to binary number.
	3rd	Write a Java program to compare two numbers.
	4th	Write a Java program and compute the sum of the digits of an integer.
3rd	1st	Write a Java program to count the letters, spaces, numbers and other characters of an input string.
	2nd	Write a Java program to reverse a string.
	3rd	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.
	4th	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
4th	1st	Write a Java program to get the larger value between first and last element of an array (length 3) of integers .
	2nd	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•
	3rd	Methods: To assign initial values• To deposit an amount• To withdraw an amount• To display the name and balance•
	4th	Methods: To assign initial values• To deposit an amount• To withdraw an amount• To display the name and balance•
5th	1st	Given are two one-dimensional arrays, Aand 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.
	2nd	Given are two one-dimensional arrays, Aand 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.
	3rd	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.
	4th	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.
6h	1st	Write a java program implementing multiple inheritance.
	2nd	Write a java program implementing multiple inheritance.
	3rd	Write a java program implementing multiple inheritance.
	4th	Write a java program implementing multiple inheritance.
7th	1st	Write a java program implementing package.
	2nd	Write a java program implementing package.
	3rd	Write a java program implementing package.
	4th	Write a java program implementingpackage.
8th	1st	Write a java program to read a file line byline and print the line on the output screen.
	2nd	Write a java program to read a file line byline and print the line on the output screen.
	3rd	Write a java program to read a file line byline and print the line on the output screen.
	4th	Write a java program to read a file line byline and print the line on the output screen.
9th	1st	Write a java program to read content fromone file and write it into another file.

	2nd	Write a java program to read content fromone file and write it into another file.
	3rd	Write a java program to read content fromone file and write it into another file.
	4th	Write a java program to read content fromone file and write it into another file.
10th	1st	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.
	2nd	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.
	3rd	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.
	4th	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.
11th	1st	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.
	2nd	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.
	3rd	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.
	4th	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.

12th	1st	Develop a java project for percentage calculator/temperature conversion tool.
	2nd	Develop a java project for percentage calculator/temperature conversion tool.
	3rd	Develop a java project for percentage calculator/temperature conversion tool.
	4th	Develop a java project for percentage calculator/temperature conversion tool.
13th	1st	Develop a java project for percentage calculator/temperature conversion tool.
	2nd	Develop a java project for percentage calculator/temperature conversion tool.
	3rd	Develop a java project for percentage calculator/temperature conversion tool.
	4th	Develop a java project for percentage calculator/temperature conversion tool.
14th	1st	Develop a java project for percentage calculator/temperature conversion tool.
	2nd	Develop a java project for percentage calculator/temperature conversion tool.
	3rd	Develop a java project for percentage calculator/temperature conversion tool.
	4th	Develop a java project for percentage calculator/temperature conversion tool.
15th	1st	Develop a java project for percentage calculator/temperature conversion tool.
	2nd	Develop a java project for percentage calculator/temperature conversion tool.
	3rd	Develop a java project for percentage calculator/temperature conversion tool.
	4th	Develop a java project for percentage calculator/temperature conversion tool.
DISCIPLINE: CSE/IT	**SEMESTER: 3rd**	**NAME OF THE TEACHING FACULTY: Smt Nayana Patel & Smt K Tanaya Acharya**
SUBJECT: OA LAB	**NO.OF DAYS/PER WEEK CLASS ALLOTTED:4**	**SEMESTER FROM DATE: 01/10/2021 TO DATE: 08/01/2022** **NO.OF WEEKS:15**
WEEK	CLASS DAY	Create a news-paper document with at least 200

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

		with proper text formatting
	3RD	Create a table using two columns, a. The left column contains all the short-cut keys and right side column contains the function of the short- cut keys.
	4TH	Create a table using two columns, a. The left column contains all the short-cut keys and right side column contains the function of the short- cut keys.
5TH	1ST	b. Insert a left column using layout option. Name the

		heading as Serial No
	2ND	Create two letters with the following conditions in Ms Word and find the difference. 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.
	3RD	Create two letters with the following conditions in Ms Word and find the difference. 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.
	4TH	Create two letters with the following conditions in Ms Word and find the difference. 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.
6TH	1ST	Create two letters with the following conditions in Ms Word and find the difference. 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.

	2ND	b. Use step by step mail-merge wizard to design a letter. (Mailing step by step mail merge wizard letters start from a template select template letters select proper template create new document OK)
	3RD	b. Use step by step mail-merge wizard to design a letter. (Mailing step by step mail merge wizard letters start from a

		template select template letters select proper template create new document OK)
	4TH	Create a letter, which must be sent to multiple recipients.
7TH	1ST	a. Use Mail-Merge to create the recipient list
	2ND	b. Use excel sheet to enter the recipient
	3RD	c. Start the mail merge using letter and directory format. State the difference
	4TH	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.
8TH	1ST	b. Use formulas for total and average
	2ND	c. Find the name of the students who has secured the highest and lowest marks.
	3RD	d. Round the average to the nearest highest integer and lowest integer (use ceiling and floor function respectively).
	4TH	Do as directed a. Create a notepad file as per the following fields Slno name th1 th2 th3 th4 th5 total % grade
9TH	1ST	b. Import this notepad file into excel sheet using „data from text“ option.
	2ND	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
	3RD	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

	4TH	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.
10TH	1ST	b. Draw a line-graph to compare the sales of three items for four years using insert option.
	2ND	c. Draw different pie-charts for the given data using insert option.
	3RD	d. Use condition, to highlight all the cells having value >=1000 with red color (use conditional formatting).
	4TH	Create a power-point presentation with minimum 5 slides.
11TH	1ST	a. The first slide must contain the topic of the

		presentation and name of the presentation.
	2ND	b. Must contain at least one table.
	3RD	c. Must contain at least 5 bullets, 5 numbers
	4TH	d. The heading must be, font size:32, font-face: Arial Rounded MT Bold, font-color: blue.
12TH	1ST	e. The body must be, font size: 24, font-face: Comic Sans MS, font-color: green. f. Last slide must contain „thank you
	2ND	Create a power-point presentation with minimum 10 slides 24
	3RD	a. Use word art to write the heading for each slides.
	4TH	b. Insert at least one clip-art, one picture
13TH	1ST	c. Insert at least one audio and one video d. Hide at least two slides
	2ND	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.
	3RD	b. Use proper transition for the slides
	4TH	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”
14TH	1ST	b. The data types are, student name: text, roll number: number, mark1 to mark4: number, total: number. Roll number must be the primary key.
	2ND	c. Enter data in the table. The total must be calculated using update query.
	3RD	d. Use query for sorting the table according to the descending/ascending order of the total marks.

	4TH	With addition to the table above, a. Add an additional field “result” to the “mark sheet” table.
15TH	1ST	b. Enter data for at least 10 students
	2ND	c. Calculate the result for all the students using update queries, if total>=200, then pass, else fail
	3RD	d. Search the students, whose name starts with “sh”.
	4TH	e. Show the names and total marks of the students who have passed the examination