E.M. GOPALAKRISHNA KONE YADAVA WOMEN'S COLLEGE

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LESSON PLAN
2021-2022

DEPARTMENT OF INFORMATION TECHNOLOGY
(UG & PG – Odd & Even Semester)

21.22 odd.

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LESSON PLAN
2021-2022

Class : I B.Sc. IT **Semester :I**

Sub. Code :21111 **Title of the Paper: Programming in C** **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Sep 21	I	**Overview of C :** History of c – Basic Structure of c programs-character set – keywords and identifiers – constants- variables- data types-declaration-formatted input-formatted output.	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]
Oct 21	II	**Decision Making Branching and Looping:** If Statement- If else Statements-Nesting of if else – else if ladder – switch statement-Conditional operator-goto statement – while-do statement – for statement – jumps in loops **Arrays :** Declaration and Initialization one dimensional – declaration and Initialization two dimensional-multidimensional-multidimensional arrays-dynamic array.	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]
Oct 21	III	**String and Function :** Declaring and Initializing String variables – reading and writing string arithmetic operations-string handling function-table of string user – defined function : need and elements of function-defining a function on –return values and their types – function call and	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]

		declaration-categories of function – nesting of function –recursion-passing arrays to function –passing string to function.			
Nov 21	**IV**	**Structure and unions:** Defining a structure – declaring Accessing and Initializing of structure-copying, comparing and operations of Structure within structures-structures and function-union-size of structure.	15	Google Meet & PPT	R.Vishnupriya [R.Vishnupriya]
Dec 21	**V**	**Pointers:** Introduction-Accessing declaring Initializing of pointer variables-accessing a variables through its pointer –chain pointer-pointer expression-increment scale factors-array-array and character string – array of pointer – function arguments and returning pointers-pointers to function and structure-trouble with pointers. files defining opening and closing a file-I/o Operation on file – error handling – random Access –command line Arguments.	15	Google Meet & PPT	R.Vishnupriya [R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : I B.Sc. IT **Semester : I**
Sub. Code : 21AI1 **Total Hours : 75 Hours**
Title of the Paper: Discrete Mathematics

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan-2022	I	**Set Theory**: Introduction – Sets – Notation and Description of sets – Subsets – Venn – Euler Diagrams – Operation on sets – Properties of set operations – Verification of basic laws and algebra by Venn diagram. **Relations**: Relations – Representation of a relation – Operations on relations – equivalence relation – Closures & Warshalls Algorithm – Partitions and Equivalence Classes.	15	Chalk & Talk, PPT	R.Raja Segeetha
Feb- 2022	II	**Recurrence relations and Generating functions:** Recurrence relation – an introduction– Polynomial and their evaluations – Recurrence relations – Solutions of finite order homogeneous (linear) relations – Solutions of non-homogeneous(linear) relations – Solutions of non-homogeneous	15	Chalk & Talk, PPT, Exercise, Quiz	R.Raja Segeetha

		relations – Generating functions (For all the theorems consider the statements without proofs).			
Mar-2022	**III**	**Coding Theory :** Introduction- Hamming Distances- Encoding a Message-Group Codes – Procedure for Generating Group Codes-Decoding and Error Correction.	**15**	**Chalk & Talk, PPT, Exercise**	**R.Raja Segeetha**
Apr-2022	**IV**	**Logic**: Introduction – IF statements – Connectives – Truth table of a formula – Tautology - Tautological implications and Equivalence of formulae – Quantifiers	**15**	**Chalk & Talk, PPT, Quiz, Assignment**	**R.Raja Segeetha**
May-2022 & June-2022	**V**	**Lattices :** Lattices-Some Properties of Lattices- New Lattices –Modular and Distributive Lattices . **Graph Theory:** Basic concepts – Matrix representations of graphs – Trees – Spanning tree – shortest path	**15**	**Chalk & Talk, PPT, Seminar, Assignment Group Discussion**	**R.Raja Segeetha**

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LESSON PLAN
2021-2022

Class : I B.Sc. IT **Semester : I**

Sub. Code : 21NMI1 **Total Hours : 75 Hours**

Title of the Paper: Windows Tools and Application

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Nov 21	I	Ms-Word about Ms-word 2000-File menu: new –Open-close-save save as a web page-page setup-print-edit menu: Selecting Text-undo Redo Typing – Cut-Copy-Paste as Hyperlink-select all – find and Replace-view menu-normal view-web layout-print layout-Ruler header/footer Insert menu: Break- Page Number – Date &Time-Auto text –Field-Symbol-Footnote&EndNote-Caption-Index&Tables-Picture-TextBook-Hperlink	6	Google Meet & PPT	R.Vishnupriya [R.Vishnupriya]
Nov 21	II	Ms-Word format menu: font-Paragraph –Bullets & Numbering –Borders &Shading Theme –frames Auto format – Style –Tool menu: spelling & Gammer –Language-word count-Auto Summarize-Track	6	Google Meet & PPT	R.Vishnupriya [R.Vishnupriya]

		Change-table menu Draw table-Insert –delete-select-merge cells.			
Dec 21	**III**	Ms-excel about excel Starting excel –navigating worksheets-opening a new work book entering data text number, date Time, Formula Entering labels and data-excel function – creating text numbers & date series undo & redo-deleting rows, columns and cell ranges header/footers find/replaces	6	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester : IV**
Sub. Code : 21A13 **Total Hours : 75 Hours**
Title of the Paper: Digital Principles and Computer Organization

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Sep 21	III	**Machine Instructions and Programs:** Memory Locations and Addresses: Byte Addressability - Big-Endian and Little-Endian Assignments - Word Alignment -Accessing Numbers, Characters and Character Strings. Memory Operations - Instruction and Instruction Sequencing: Register Transfer Notation - Assembly Language Notation - Basic Instruction Types - Instruction Execution and Straight Line Sequencing - Branching-Condition Codes. Addressing Modes: Implementation of variables and constants – Indirection and pointers – Indexing and Arrays – Relative Addressing – Additional Modes - Assembly Language: Assembler Directives, Assembly and Execution of Programs, Number Notation.	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]
Sep 21	IV	**Input / Output Organization:** Accessing I/O Devices – Interrupts: Interrupt Hardware - Enabling and Disabling	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]

		Interrupts - Handling Multiple Devices - Controlling Device Requests – Exceptions - Use of Interrupts in Operating Systems - Direct Memory Access: Bus Arbitration – Buses : Synchronous Bus - Asynchronous Bus - Interface Circuits: Parallel port - Serial Port – Standard I/O Interface: Peripheral Component Interconnect (PCI) Bus.			
Oct 21	**V**	**The Memory System:** Some Basic Concepts - Semiconductor RAM Memories: Internal Organization of Memory Chips - Static Memories – Asynchronous DRAMS - Synchronous DRAMS – Read Only Memories: ROM – PROM – EPROM – EEPROM - Flash Memory - Speed, Size and Cost - Cache Memories: Mapping Functions - Replacement Algorithms – Virtual Memories. **Basic Processing Unit:** Some Fundamental Concepts: Register Transfers -Performing an Arithmetic or Logic Operation - Fetching a Word from Memory - Storing a Word in Memory - Execution of a Complete Instruction – Multiple Bus Organization.	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : II B.Sc. IT **Semester : III**

Sub. Code :21131 **Title of the Paper: RDBMS** **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Sep 21	II	**Relational Model:** Structure of Relational Databases – Database Schema –Keys- Schema Diagrams- Relational Query Languages - Relational Operations **SQL:** Overview of the SQL Query- SQl Data Definition – Basic Structure of SQL queries – Additional basic operations-Set Operations – Null values– Aggregate Functions – Nested Sub queries–Modification of Database .	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]
Sep 21	III	**Database Design and The E-R Model:** Overview of the Design Process – The Entity-Relationship Model – Constraints – Entity-Relationship Diagrams – Entity-Relationship Design Issues – Weak Entity sets – Extended E-R Features.	15	Google Meet & PPT	R. Vishnupriya [R.Vishnupriya]

Oct 21	**IV**	**Relational Database Design:** Features of Good Relational Designs – Atomic Domains and First Normal Form – Decomposition Using Functional Dependencies – Functional-Dependency Theory – Decomposition using Multivalued Dependencies.	15	Google Meet & PPT	[R.Vishnupriya]
Oct 21	**V**	**Storage and File Structure:** Overview of Physical Storage media – Magnetic Disks – RAID – Tertiary Storage – File Organization – Organization of Records in Files – Data-Dictionary Storage.	15	Google Meet & PPT	[R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester : III**
Sub. Code : 21I32 **Total Hours : 60 Hours**
Title of the Paper: Data Structure and Algorithms

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug-2021	I	**Basic Concepts:** Overview : System Life Cycle - Object Oriented Design – Data Abstraction and Encapsulation - Basics of C++ - Algorithm Specification. **Arrays:** Abstract Data Types and the C++ Class - The Array as an Abstract Data Type - Representation of Arrays.	12	Google Meet, PPT, Slide Share	S.Sumathi
Sep-2021	II	**Stacks & Queues:** Templates in C++ - The Stack Abstract Data Type - The Queue Abstract Data Type - Subtyping and Inheritance in C++. **Linked Lists:** Singly linked lists and Chains - Representing Chains in C++ - The Template Class Chain - Circular Lists - Linked Stacks & Queues.	12	Google Meet, Google Classroom, Quiz	S.Sumathi
Oct-2021	III	**Trees:** Introduction - Binary Trees - Binary Tree Traversal and Tree Iterations - Threaded Binary Trees - Heaps -	12	Google Meet, PPT	S.Sumathi

		Binary Search Trees- Selection Trees – Forests.			
Nov-2021	**IV**	**Graphs:** The Graph Abstract Data Type – Elementary Graph Operation – Minimum Cost Spanning Tree – Shortest Paths and Transitive Clousure - Activity Networks.	**12**	**Google Meet, Quiz, Google Classroom Assignment**	**S.Sumathi**
Dec-2021	**V**	**Sorting:** Motivation – Insertion Sort – Quick Sort – Fast method to Sort - Merge Sort – Heap Sort – Sorting on Several Keys – List and Table Sorts.	**12**	**Google Meet, Google Classroom, Group Discussion**	**S.Sumathi**

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester :V**
Sub. Code : 17I51
Title of the Paper: Programming in Java **Total Hours : 75 Hrs.**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	**Fundamentals of Object-Oriented Programming:** Introduction – Object-oriented Paradigm – Basic concepts of OOP – Benefits of OOP – Applications of OOP. **Java Evolution:** Java History – Java Features – Java Differs from C & C++ - Java and Internet – Java Environment. **Overview of Java Language:** Introduction – Simple Java Program – More of Java – Application with two classes – Java Program structure – Java Tokens – Java statements – Implementing a Java Program – Java Virtual Machine – Command Line Arguments.	15	Google Meet & PPT	[R.Lakshmi]
Sep 2021	II	**Operators and Expressions:** Introduction – Arithmetic operators – Relational operators – Logical operators – Assignment operators – Increment and Decrement operators – Conditional operators – Bitwise operators – Special operators –	15	Google Meet & PPT	[R.Lakshmi]

		Arithmetic Expressions – Evaluation of Expressions – Precedence of Arithmetic operators – Type conversions in Expressions – Mathematical Functions. **Decision Making and Branching:** Introduction – Decision making with IF statement – The Switch statement – The ?: operator - **Decision Making and Looping:** The While Statement – The do statement – The for statement – Jumps in loops – Labeled Loops- **Arrays, Strings and Vectors:** Introduction-One Dimensional Arrays-Creating an Array- Two Dimensional Arrays-Strings-Vectors-Wrapper Classes-Enumerated Types			
Oct 2021	III	**Classes, Objects and Methods**: Introduction Defining a class- Fields Declaring-methods Declaration –Creating Objects-Accessing Class Members- Constructors-method Overloading-Static Members-Nesting of Methods—Inheritance: Extending a Class-Overriding methods-Final Variables and Methods-Final classes-Finalizer Methods-Abstract Method and Classes-Methods with Varargs-Visibility Control **Interfaces: Multiple Inheritances:** Defining Interfaces – Extending interfaces – Implementing Interfaces – Accessing Interface Variables.	15	Google Meet & PPT	[R.Lakshmi]

Nov 2021	IV	**Numerical differentiation and Integration :** Newton's Forward and Backward difference formulae-Numerical integration: Trapezoidal rule-Simpson's 1/3 rule-Simpson's 3/8 rule. (Problems only).	6	Lecture, PPT	[R.Lakshmi]
Dec 2021	V	**Numerical Solution of Ordinary Differential Equation:** Taylor's Series method- Improved Euler's Methods – Modified Euler's Method - Runge Kutta Method - Milnes Predictor Corrector Method. (Problems only).	6	Google Meet & PPT Power point	[R.Lakshmi]

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester :V**
Sub. Code : 17I52
Title of the Paper: Digital Principles and Computer Organization Total Hours : 30 Hours

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	**Digital Logic:** The Basic Gates - NOT, OR, AND - Universal Logic Gates - NOR, NAND - **Combinational logic Circuits**: Boolean Laws and Theorem - Sum – of - Product Method - Truth Table to Karnaugh Map – Pairs, Quads and Octets – Karnaugh Simplifications – Don't - care conditions – Product - of - Sums Method – Product - of - Sums Simplification. **Data Processing Circuits:** Multiplexers – DeMultiplexers.	15	Google Meet & PPT	G.Amudha [G.Amudha]

Sep 2021	II	**Number Systems and Codes:** Binary Number System–Binary – to - decimal Conversion– Decimal – to - binary Conversion – Octal Numbers - Hexadecimal Numbers – The ASCII code – The Excess 3 code – The Gray Code. **Arithmetic Circuits:** Binary Addition – Binary Subtraction – 2's Complement Representation – 2's Complement Arithmetic - Arithmetic Building Blocks. **Flip-Flops:** RS Flip-Flops – Edge-triggered RS Flip Flops – Edge-triggered D Flip-Flops – Edge-triggered JK Flip-Flops – JK Master Slave Flip-Flops.	15	Google Meet & PPT	G. Amudha [G.Amudha]

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester : V**
Sub. Code : 17132 **Total Hours : 60 Hours**
Title of the Paper: Computer Networks

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug-2021	I	Introduction: Uses of Computer Networks - Network Hardware - Network Software - Reference Models: The OSI Reference Model - The TCP/IP Reference Model – A Comparison of the OSI and TCP/IP Reference Models..	12	Google Meet, PPT, Slide Share	R.Raja Sangeethal
Sep-2021	II	The Physical Layer: Guided Transmission Media - Wireless Transmission - Communication Satellites. The Data Link Layer: Data link layer design Issues - Error Detection and Correction.	12	Google Meet, Google Classroom, Quiz	R.Raja Sangeetha
Oct-2021	III	The Medium Access Control: The Channel Allocation Problem - Multiple Access Protocols - Ethernet - Data Link Layer Switching	12	Google Meet, PPT	R.Raja Sangeetha

Nov-2021	**IV**	The Network Layer: Network Layer Design Issues - Routing Algorithms - Congestion Control Algorithms - Internetworking.	**12**	**Google Meet, Quiz, Google Classroom Assignment**	**R.Raja Sangeetha**
Dec-2021	**V**	The Transport Layer: The Transport Service - Elements of Transport Protocols. The Application Layer: DNS - The Domain Name System - Electronic Mail.	**12**	**Google Meet, Google Classroom, Group Discussion**	**R.Raja Sangeetha**

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LESSON PLAN
2021-2022

Semester :V

Class : III BSc(IT)
Sub. Code : 17IE5A

Title of the Paper: : Client Server Computing **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	**Introduction to Client/server computing: Overview of Client/Server Computing:** Client Server Computing - Benefits of Client/Server Computing. **Evolution of Client/Server Computing:** Hardware Trends - Software Trends. **Overview of Client/Server Applications:** Components of Client/Server Applications - Classes of Client/Server Applications - Categories of Client/Server Applications.	14	Google Meet & PPT	G.Amudha [G.Amudha]
Sep 2021	II	**Understanding Clint/Server Computing:** Dispelling the Myths - Obstacles-Upfront and Hidden - Open Systems and Standards – Standards - Setting Organizations - Factors for Success. **The Client: Client Hardware and Software:** Client Components - Client Operating Systems - What is GUI - X Window Vs Windowing - Database Access - Application Logic. **Client Software Products:** GUI Environments - Converting 3270/5250 Screens - Database Access Tools.	13	Google Meet & PPT	[G.Amudha] G.Amudha
Oct 2021	III	**Client Requirements:** GUI Design Standards - GUI Design Standards - Open GUI Standards - Interface Independence -	16		

		Testing Interface - Development Aids. **The Server:** Server Hardware – Benchmarks - Categories of Servers - Features of Server Machines - Classes of Server Machines. **Server Environment:** Eight Layers of Software - Network Management Environment - Network Computing Environment – Extensions -Network Operating System - Loadable Modules.		Google Meet & PPT	[G.Amudha] G.Amu
Nov 2021	**IV**	**Server Operating Systems:** OS/2 2.0 - Windows New Technology – UNIX -Based Operating Systems. **Server Requirements:** Platform Independence - Transaction Processing - Connectivity - Intelligent Database - Stored Procedures – Triggers - Load Leveling – Optimizer - Testing and Diagnostic Tools – Reliability - Backup and Recovery Mechanisms.	17	Google Meet & PPT Chalk &Talk	G.Amu [G.Amudha]
Dec 2021	**V**	**Server Data Management and Access Tools:** Data Manager Features - Data Management Software - Database Gateways. **Overview of Networking:** Layers, Interfaces, and Protocols-Standard Architecture - Network Characteristics - Network Management Standards - LAN Characteristics.	15	PPT, Group Discussion	G.Amu [G.Amudha]

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LESSON PLAN
2021-2022

Class: I M.Sc IT **Semester : I**

Sub. Code: 21PI11 **Total Hours: 75 Hours**

Title of the Paper: Computer Architecture

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Sep 21	I	**Digital Logic Circuits**: Digital Computers- Logic Gates – Boolean Algebra- Map Simplification- Combinational Circuits- Flip-flops- Sequential Circuits. **Digital Components:** Integrated Circuits-Decoders – Multiplexer – Registers – Shift Registers – Binary Counters – Memory Unit. **Data Representation**: Data Types-Complements-Fixed Point Representation-Floating Point Representation – other Binary Codes-Error Detection Codes.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]
Oct 21	II	**Register Transfer and Micro operation**: Register Transfer Language- Register Transfer – Bus and Memory Transfer – Arithmetic Micro Operation – Logic Micro Operation – Shift Micro operation- Arithmetic Logic Shift Unit. **Basic Computer Organization and Design:**	15	Chalk &Talk Assignment PPT, Video Material	R. Vishnupriya [R.Vishnupriya]

		Instruction Codes-Computer Registers- Computer Instructions-Training – Timing And Control-Instruction Cycle-Memory Reference Instructions – Input And Output And Interrupt.			
Oct 21	**III**	**Micro programmed Control**: Control Memory – Addressing Sequencing – Micro Program Example – Design of Control Unit. **Central Processing Unit:** Introduction – General Register Organization – Stack Organization – Instruction Formats- Addressing Modes-Data Transfer And Manipulation – Programmed Control.	15	Chalk &Talk Assignment PPT, Video Material	[R.Vishnupriya]
Nov 21	**IV**	**Computer Arithmetic**: Introduction- Addition and Subtraction – Multiplication Algorithm – Division Algorithm.	15	Chalk &Talk PPT, Video	[R.Vishnupriya]
Dec 21	**V**	**Input Output Organization:** Peripheral Devices – Input Output Interfaces Asynchronous Data Transfer, Modes of Transfer, Direct Memory Access, Input Output Processor, Serial Communication. **Memory Organization:** Memory Hierarchy, Main Memory, Auxiliary Memory, Associative Memory, Cache Memory Virtual Memory.	15	PPT, Video Material Spot Test PPT, Group Discussion	[R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : I M.Sc., IT **Semester :I**

Course Code: 21OPI12 **Total Hours : 60 Hours**

Course Title : Object Oriented Programmingwith C++

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	Software Crisis – Software Evolution – Basic Concepts of Object-Oriented Programming – Benefits of OOP – Object-Oriented Languages - Applications of OOP – Application of C++ - Structure of a C++ Program – Tokens – Keywords – Identifiers – Basic Data Types – User-defined Data types – Derived data types – Symbolic constants – Type compatibility – Declaration of variables – Dynamic initialization of variables –Reference variables – Operators in C++ - Manipulators – Type cast operator – Expressions and their types-Implicit conversions – Control structures – The main function – Function prototyping – inline functions – Function overloading	12	Chalk & Talk, PPT	[G.Amudha] G.Amu
Sep 2021	II	functions – Making an outside function inline – Nesting of member functions – Private member functions – Array within a class – Memory allocation for objects – Static data members – Static member functions – Array of objects - Objects as function arguments – Friendly functions – Returning objects –	12	Chalk & Talk, Spot test, Exercise, Assignment, PPT,	G.Amu [G.Amudha]

		Constant member functions – Constructors – Parameterized constructor – Multiple constructors in a class – Constructors with default arguments – Dynamic initialization of objects – Copy constructor – Destructors.		Video material	
Oct 2021	**III**	Defining operator overloading – Overloading unary operators – Overloading binary operators– Overloading binary operators using friend function – Rules for overloading operators - Defining derived classes – Single inheritance – Making a private member inheritable – Multilevel inheritance – Multiple inheritance – Hierarchical inheritance – Hybrid inheritance - Virtual base classes – Constructors in derived class – Member classes: Nesting of classes.	**12**	Chalk & Talk, Exercise, PPT,video material	G.Amudha [G.Amudha]
Nov 2021	**IV**	Pointer to objects – this pointer – Pointers to derived classes – Virtual functions – Pure virtual functions – C++ Stream classes – Unformatted I/O operations – Managing output with manipulators.	**12**	Chalk & Talk, Exercise, Assignment, video material, Group Discussion	G.Amudha [G.Amudha]
Dec 2021	**V**	Classes of file stream operations – Opening and Closing files – Detecting end of file – More about open() function – File modes, File pointers and their manipulation – Sequential input and output operations – Command-line arguments- Templates: class templates and function templates.	**12**	Quiz, Chalk & Talk, Exercise , Spottest, Assignment , Seminar	G.Amudha [G.Amudha]

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LESSON PLAN
2021-2022

Semester : I

Class : I M.Sc(IT)

Sub. Code : 21OPI12

Title of the Paper:Object Oriented Programming with C++ **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	Software Crisis – Software Evolution – Basic Concepts of Object-Oriented Programming – Benefits of OOP – Object-Oriented Languages - Applications of OOP – Application of C++ - Structure of a C++ Program – Tokens – Keywords – Identifiers – Basic Data Types – User-defined Data types – Derived data types – Declaration of variables – Dynamic initialization of variables –Reference variables – Operators in C++ - Manipulators – Type cast operator – Expressions and their types-Implicit conversions – Control structures– The main function – Function prototyping –inline functions – Function overloading.	15	Google Meet & PPT	G.Amudha [G.Amudha]
Sep 2021	II	Specifying a class – Defining member functions – Making an outside function inline – Nesting of member functions – Private member functions – Array within a class – Memory allocation for objects – Static data members – Static member functions – Array of objects - Objects as	15	Google Meet & PPT	[G.Amudha]

		function arguments – Friendly functions – Returning objects – Constant member functions – Constructors – Parameterized constructor – Multiple constructors in a class – Constructors with default arguments – Dynamic initialization of objects – Copy constructor – Destructors			
Oct 2021	III	Defining operator overloading – Overloading unary operators – Overloading binary operators– Overloading binary operators using friend function – Rules for overloading operators - Defining derived classes – Single inheritance – Making a private member inheritable – Multilevel inheritance – Multiple inheritance – Hierarchical inheritance – Hybrid inheritance - Virtual base classes – Constructors in derived class – Member classes: Nesting of classes.	15	Chalk & Talk, Exercise, PPT, video material	G.10.21 [G.Amudha]
Nov 2021	IV	Pointer to objects – this pointer – Pointers to derived classes – Virtual functions – Pure virtual functions – C++ Stream classes – Unformatted I/O operations – Managing output with manipulators	15	video material, Group Discussion	G.10.21 [G.Amudha]
Dec 2021	V	Classes of file stream operations – Opening and Closing files – Detecting end of file – More about open() function – File modes, File pointers and their manipulation – Sequential input and output operations – Command-line arguments- Templates: class templates and function templates.	15	Quiz, Exercise , Spot test, Assignment, Seminar	G.10.21 [G.Amudha]

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LESSON PLAN
2021-2022

Class : II M.Sc IT **Semester : III**
Sub. Code : 17PI31
Title of the Paper: Advanced Software Engineering **Total Hours : 75**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	**Software and Software Engineering:** The Nature of Software – The unique Nature of WebApps – Software Engineering – The Software Process – Software Engineering Practice. **Process Models:** A Generic Process Model – Process Assessment and Improvement – Prescriptive Process Models – Specialized Process Models – The Unified Process – Personal and Team Process Models – Process Technology – Product and Process.	15	Google Meet & PPT	R.Boomadevi
Sep 2021	II	**Requirements Modeling:** Requirements Analysis – Scenario-Based Modeling – UML Models that Supplement the Use Case – Data Modeling Concepts – Class-Based Modeling – Requirements Modeling Strategies – Flow-Oriented Modeling – Creating a Behavioral Model – Patterns for Requirements Modeling – Requirements Modeling for WebApps.	14	Google Meet & PPT	R.Boomadevi
Oct 2021	III	**Software Quality Assurance:** Issues – Elements of Software Quality Assurance – SQA tasks, Goals, Metrics – Formal Approaches to SQA – Statistical Software Quality Assurance – Software	15	Google Meet & PPT	R.Boomadevi

		Reliability – The ISO 9000 Quality Standards – The SQA Plan. **Software Testing Strategies:** A Strategic Approach to Software Testing – Strategic Issues – Test Strategies for Conventional Software – Test Strategies for Object-Oriented Software – Test Strategies for WebApps – Validation Testing – System Testing – The Art of Debugging			
Nov 2021	**IV**	**Estimation for Software Projects:** Observation on Estimation – The Project Planning Process Software Scope and Feasibility – Resources – Software Project Estimation – Decomposition Techniques – Empirical Estimation Models – Estimation for Object-Oriented Projects – Specialized Estimation Techniques – The Make/Buy Decision. **Project Scheduling:** Basic Concepts – Project Scheduling – Defining a Task Set For the Software Project – Defining a Task Network – Scheduling – Earned Value Analysis.	15	Google Meet & PPT Chalk &Talk	R.Boomadevi
Dec 2021	**V**	**Software Process Improvement:** SPI – The SPI Process – The CMMI The People CMM – Other SPI Frameworks – SPI Return on Investment – SPI Trends. **Emerging Trends in Software Engineering:** Technology Evolution – Observing Software Engineering Trends – Identifying "Soft Trends" – Technology Directions – Tools-Related Trends.	15	PPT, Group Dissuss ion	R.Boomadevi

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LESSON PLAN
2021-2022

Class : II M.S.c
Sub. Code : 17PI32
Semester : III

Title of the Paper: Advanced JAVA
Total Hours : 75 Hours

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	**Introduction to Java:** Introduction – History of Java – Features of Java – The difference between C++ and Java. **Applet:** Introduction to Applet - Applet life cycle- The Applet Tag- paint(),update(),and repaint()- setBackground() and setForeground()-Color constants- showStatus() - Passing parameters to Applets – FONT- getDocumentBase() and GetCodeBase()- Using images- Drawing image- Applet interfaces- Difference between Applet and Application Program – Converting Applet to Application.	14	Google Meet & PPT	R.Lakshmi
Sep 2021	II	**Graphics:**Introduction - Drawing lines – Drawing Rectangles – Drawing Ovals – Drawing Arcs –	15	Google Meet & PPT	R.Lakshmi

		Drawing polygons – Drawing polyline Clipping. **AWT and Event Handling**: Introduction – Component – Frame – The Button class - Layout Management – Insets – Canvas – Label - Text field –Text Area - Check Box - Check Box Group – Choice - List – Menu - Event handling - adapter class.			
Oct 2021	**III**	**Networking** :Introduction - TCP/IP -UDP/IP - Difference between TCP and UDP- IP Address –DNS – port – URL - chatting program using TCP/IP -Chatting Program using UDP/IP. **Remote Method Invocation(RMI):**Introduction – comparison of Distributed and Non-Distributed java programs -RMI Packages - A simple Client/Server Application Using RMI - RMI Enhancements.	16	Google Meet & PPT Chalk &Talk	R.Lakshmi
Nov 2021	**IV**	**Networking** :Introduction - TCP/IP -UDP/IP - Difference between TCP and UDP- IP Address –DNS – port – URL - chatting program using TCP/IP -Chatting Program using UDP/IP. **Remote Method Invocation(RMI):**Introduction –	15	Google Meet & PPT	R.Lakshmi

		comparison of Distributed and Non-Distributed java programs -RMI Packages - A simple Client/Server Application Using RMI - RMI Enhancements.			
Dec 2021	V	**Java Beans:** Introduction - Getting started for Beans - Using the BDK Demonstration Beans - saving and Restoring Beans - Building an Applet from Bean Box - Create your Own bean – Info Bus - Java Activation Frame Work(JAF) -The Extensive Runtime Containment and Service protocol - Enterprise JavaBeans(EJB) - Java OS - The JavaBean bridge for ActiveX - Other Bean Development Tools.	15	Google Meet & PPT	R.Lakshmi

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LESSON PLAN
2021-2022

Class : II M.S.c **Semester :III**
Sub. Code : 17PIE3B

Title of the Paper: Mobile Computing **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Aug 2021	I	Mobility of Bits and Bytes-Wireless The beginning –Mobile computing –Dialogue Control-Networks-Middleware and Gateways-Applications and Services-Developing Mobile Computing Applications – Security in Mobile Computing-Standards –Standard Bodies-Players in the wireless space. **Mobile Computing Architecture:** History of computers-History of Internet-Internet-The Ubiquitous Networks –Architecture for Mobile Computing –Three tier Architecture-Design consideration for mobile computing-Mobile computing through Internet-Making existing applications mobile enabled.	15	Google Meet & PPT	R.Raja Sangeetha

Sep 2021	II	Mobile computing through Telephony-Evolution of Telephony-Multiple Access Procedures- Satellite Communication System-Mobile computing through telephone-Developing an IVR Application-Voice XML-Telephony Application Programming Interface. **Emerging Technologies:** Introduction–Bluetooth-Radio Frequency Identification(RFID)-Wireless broadband(WIMAX)-Mobile IP-Internet Protocol Version6(IPV6)-Java Card.	15	Google Meet & PPT	R.Raja Sangeetha
Oct 2021	III	Global System for mobile Communication-Global System for Mobile Communications-GSM Architecture- GSM Entities –Call routing in GSM-PLMN interfaces-GSM address and Identifiers-Network aspects in GSM –GSM Frequency Allocation-Personal Communication Service-Authentication and Security.	16	Google Meet & PPT Chalk &Talk	R.Raja Sangeetha
Nov 2021	IV	Wireless Application Protocol – Introduction- WAP- MMS - GPRS applications –**CDMA and 3G**: Introduction-Spread Spectrum technology –Is 95-CDMA versus GSM- Wireless Data- Third	15	Google Meet & PPT	R.Raja Sangeetha

		Generation Networks-Applications on 3G.			
Dec 2021	V	**Wireless LAN:** Introduction-Wireless LAN advantages-IEEE 802.11 standards –wireless LAN architecture –mobility in wireless LAN-deploying wireless LAN-Mobile adhoc Networks and sensor Networks-wireless LAN security-Wireless Access in Vehicular Environment-Wireless Local Loop- HiperLAN-WiFi versus 3G. **Intelligent Networks and Interworking:** Introduction-Fundamentals of call processing – Intelligence in the networks –SS#7 signaling –IN Conceptual Model-Soft switch -Programmable networks-Technologies and Interfaces for IN-SS7 Security-MAPSec-Virtual Private Network(VPN).	15	Google Meet & PPT	R.Raja Sangeetha

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LESSON PLAN
2021 -2022

Class : I B.Sc. IT **Semester : II**
Sub. Code : 21I21 **Total Hours : 75 Hours**
Title of the Paper: Object Oriented Programming with C++ and Data Structure

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 22	I	**Software Crisis** – Software Evolution – Basic Concepts of Object-Oriented Programming – Benefits of OOP – Object-Oriented Languages - Applications of OOP – Application of C++ - Structure of a C++ Program – Tokens – Keywords – Identifiers – Basic Data Types – User-defined Data types – Derived data types – Symbolic constants – Type compatibility – Declaration of variables – Dynamic initialization of variables –Reference variables – Operators in C++ - Manipulators – Type cast operator – Expressions and their types-Implicit conversions – Control structures – The main function – Function prototyping – inline functions – Function overloading.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]
March 22	II	Specifying a class – Defining member functions – Making an outside function inline – Nesting of member functions – Private member functions – Array within a class – Memory allocation for objects – Static data members – Static member functions – Array of objects - Objects as function arguments – Friendly functions –	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]

		Returning objects – Constant member functions – Constructors – Parameterized constructor – Multiple constructors in a class – Constructors with default arguments – Dynamic initialization of objects – Copy constructor – Destructors.			
March 22	**III**	Defining operator overloading – Overloading unary operators – Overloading binary operators– Overloading binary operators using friend function – Rules for overloading operators - Defining derived classes – Single inheritance – Making a private member inheritable – Multilevel inheritance – Multiple inheritance – Hierarchical inheritance – Hybrid inheritance - Virtual base classes – Constructors in derived class – Member classes: Nesting of classes. Pointer to objects – this pointer – Pointers to derived classes – Virtual functions.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]
Apr 22	**IV**	Stack & Queues : Templates in C++ -The Stack Abstract data Type –the queue abstract data type-subtyping and Inheritance in c++.Linked Lists singly linked lists & chains – Represting chain in C++ Trees : Introduction-Binary Trees –binary tree Traversal and Tree Iteration-Heaps-binary Search Trees.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]
May 22	**V**	The Graphs Abstract data type – elementary graph operation – minimum cost spanning tree sorting motivation – insertion sort-quick sort-merge sort.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]

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LESSON PLAN
2021-2022

Class :I B.Sc(IT) **Semester :II**

Sub. Code : 21AI2

Title of the Paper:Resource Management Techniques **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 2022	I	Operation Research: The nature and meaning of OR-Management Applications of OR- General methods for solving OR models - Main characteristics of OR-Main Phases of OR - Scope of OR-Role of Computers in OR.	14	Chalk & Talk PPT	[G.Amudha] G.Amu
March 2022	II	Linear Programming and its Applications: Formulation of LP Problems – Graphical Solution of properly behaved LP Problem – General Formulation of LPP-Slack and Surplus Variables.	15	Chalk & Talk Assignment PPT, Video Material	[G.Amudha] G.Amu
April 2022	III	Simplex Method : Computational Procedure of Simplex Method - Artificial Variable Technique - Two phase method – Big-M-Method.	16	Chalk &Talk	[G.Amudha] G.Amu

May 2021	**IV**	Transportation Problems: Mathematical Formulation – Initial Basic Feasible Solution to Transportation Problem - Methods for initial Basic Feasible Solution.	15	Chalk &Talk	[G.Amudha]
June 2022	**V**	Mathematical Formulation of Assignment Problem – Hungarian Method for Assignment Problem- Assignment Algorithm- A rule to draw minimum number of Lines- Unbalanced assignment Problem- The Maximal assignment Problem- Restriction on Assignment Problem	15	Chalk &Talk	[G.Amudha]

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LESSON PLAN
2021-2022

Class : II B.Sc. IT **Semester : IV**
Sub. Code :17I42 **Total Hours : 75Hours**
Title of the Paper: Operating system & System Software

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 22	I	**Introduction:** What is an Operating System – Mainframe Systems – Desktop Systems – Multiprocessor Systems – Distributed Operating Systems. **Process Management:** Process Concept – Process Scheduling – Operations on Processes – Cooperating Processes – Inter process Communication - Scheduling Algorithms.	15	Chalk & Talk PPT	R.Vishnupriya [R.Vishnupriya]
March 22	II	**CPU Scheduling:** Basic Concepts-Scheduling Criteria-Scheduling Algorithms-Multiple processor scheduling-Real time scheduling. **Deadlocks:** System model – Deadlock Characterization – Methods for handling Deadlocks – Deadlock Prevention – Deadlock	15	Chalk & Talk PPT	R.Vishnupriya [R.Vishnupriya]

		Avoidance – Deadlock Detection – Recovery from Deadlock.			
Apr 22	**III**	**Memory Management:** Background – Swapping – Contiguous Memory Allocation – Paging Segmentation - Segmentation with Paging. **File-System Interface**: File Concepts – Access Methods – Directory Structure	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]
May 22	**IV**	**Background:** Introduction to System Software and Machine Architecture - The Simplified Instructional Computer (SIC). **Assemblers**: Basic assembler functions - Machine - Dependent and machine independent assembler features - Assembler design options	15	Chalk & TalkPPT	R. Vishnupriya [R.Vishnupriya]
June 22	**V**	**Loaders and Linkers:** Basic Loader Functions – Machine-Dependent Loader Features – Machine Independent Loader Features – Loader Design Options.	15	Chalk & Talk PPT	R. Vishnupriya [R.Vishnupriya]

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LESSON PLAN
2021-2022

Class : II B.Sc. IT **Semester : IV**

Sub. Code : 17I42 **Total Hours : 75 Hours**

Title of the Paper: Computer Graphics

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
March 22	III	Output primitives points and lines –lines drawing Algorithms loading the frame buffer-line function –circle Generating Algorithm-ellipse Generating Algorithms-Other curves –parallels curve Algorithm-Curve function-pixel Addressing –filled Area Primitives-Fill Area Function – Cell Array –Character Generation.	15	Chalk & Talk PPT	[R.Vishnupriya]
Apr 22	III	Attributes of output primitives line attributes-curve attributes –color and grayscale levels-area fill attributes-character attributes-bundled attributes-inquiry function –ant aliasing.	15	Chalk & Talk PPT	[R.Vishnupriya]
May 22	IV	Two dimensional Geometric Transformation–basic-transformation-matrix	15	Chalk & Talk PPT	[R.Vishnupriya]

		representation and homogeneous coordinates-composite transformation–other transformation-transformation between coordinates system-Affine Transformation-Transformation function –Raster method for Transformations.			
June 22	**V**	Two Dimensional viewing the viewing pipeline-viewing coordinates reference frame – windows to view port coordinate transformation-Two Dimensional viewing function –clipping operation point clipping-line-Nichol line clipping –polygon clipping-curve clipping –Text clipping – Exterior clipping	15	Chalk & Talk PPT	R. Vishnupriya [R. Vishnupriya]

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LESSON PLAN
2021-2022

Semester :IV

Class : II B.Sc(IT)
Sub. Code : 17 AI4

Title of the Paper: **Financial and Cost Accounting** **Total Hours : 75**

Hours

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb-2022	I	**Double Entry System:** Introduction – Meaning of Accounting – Accounting Terms – Principle of Double Entry - Advantages of Double Entry System – Rules. **Journal & Ledger:** Preparation of Journal & Ledger – Relation between Journal and Ledger - Trial Balance.	14	Google Meet & PPT	R.Boomadevi
Mar 2022	II	**Final Accounts:** Financial Statements and their Nature – Trading Account -Advantages of Trading Account – Profit and Loss Account – Balance Sheet - Distinction between Trading , Profit and Loss account and Balance Sheet –	15	Google Meet & PPT	R.Boomadevi

		Adjustments in Final Accounts - Difference between Trial Balance and Balance Sheet			
April 2022	III	**Introduction:** Cost Accounting – Objectives – Functions of Cost Accounting - Difference between Financial accounting and Cost Accounting. **Cost – Methods, Types, Classification:** Methods of Cost – Types of Cost - Classification – Elements of Cost – Production Account – Preparation of Cost Sheet.	16	Google Meet & PPT Chalk &Talk	R.Boomadevi
May 2022	IV	**Material Inventory Control:** Store Keeping – Functions of Store Keeper – Store Lay out – Types of Stores – Centralized and Decentralized – Central Store with Sub-stores - Fixation of Stock Levels - Economic Order Quantity (EOQ) - ABC Analysis – Inventory System: Preparation of Bin card and Stores Ledger Account. **Material Issues Control:** Issue Procedure – Pricing of Materials: Actual Price	15	Google Meet & PPT	R.Boomadevi

		Method (FIFO, LIFO), Average Price Method (Simple Average and Weighted Average).			
June 2022	V	**Labour Cost :** Introduction –Control of Labour Cost – Methods of Time Booking – Merits and Demerits – Idle Time - Control on over time and idle Time – Labour Turnover. **Labour Cost – Cost Accounting:** Methods of Remuneration –Time rate at Ordinary levels, Time rate at High wage levels, Guaranteed Time Rates - Differential Piece Rate – Premium Bonus Schemes (Incentive systems): The Halsey Premium Plan, The Halsey-weir Scheme , Rowan Scheme.	15	Google Meet & PPT	R.Boomadevi

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LESSON PLAN
2021-2022

Semester :VI

Class : III B.Sc. IT
Sub. Code : 17I61
Title of the Paper: Software Engineering

Total Hours : 75 Hrs

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb-2022	I	Introduction to Software Engineering: Some Definitions - Some Size factors - Quality and productivity factors - Managerial Issues. Planning a software project: Defining the problem - Developing a Solution Strategy - Planning the Development Process - Planning an Organizational structure - Other planning Activities.	15	Chalk & Talk PPT	R.Lakshmi
Mar 2022	II	Software Cost Estimation: Software Cost Factors - Software Cost Estimation Techniques - Staffing Level Estimation – Estimating software Maintenance costs.	15	Chalk & Talk Assignment PPT, Video Material	R.Lakshmi
April 2022	III	Software Requirements Definition: The software Requirements Specification - Formal Specification Techniques - Languages and Processors for Requirements Specifications.	15	Chalk &Talk Assignment PPT, Video Material	

May 2022	IV	Software Design: Fundamental Design Concepts - Modules and Modularization Criteria - Design Notations - Design techniques - Detailed Design Considerations - Real time and distributed system Design - Test plans - Milestones, Walkthroughs and Inspection - Design Guidelines.	15	Chalk &Talk PPT, Video Material Spot Test	R.Lakshmi
June 2022	V	Verification and Validation Techniques: Quality Assurance - Static analysis - Symbolic Execution - Unit testing and Debugging - System Testing - Formal Verification. Software Maintenance: Enhancing Maintainability during Development - Managerial Aspects of Software Maintenance - Configuration Management - Source Code Metrics.	15	PPT, Video Material Spot Test PPT, Group Discussion	R.Lakshmi

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LESSON PLAN
2021-2022

Class : III B.Sc IT **Semester :VI**
Sub. Code: 17SEI61
Title of the Paper: Quantitative Aptitude **Total Hours : 30Hrs.**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb-2022	I	Numbers – Decimal Fractions – Square Roots and Cube Roots – Average – Problems on ages.	6	Chalk &Talk	[R.Lakshmi]
Mar 2022	II	Surds & Indices – Percentage - Profit & Loss – Ratio & Proportion – Time & Work.	6	Chalk &Talk	[R.Lakshmi]
April 2022	III	Time & Distance – Problems on Trains – Boats & Streams – Simple Interest – Compound Interest – Logarithms – Area.	6	Chalk &Talk	[R.Lakshmi]
May 2022	IV	Calendar – Permutations & Combinations – Probability – Odd Man out Series.	6	Chalk &Talk PPT	[R.Lakshmi]
June 2022	V	Tabulation – Bar – Pie Charts – Line Graphs.	6	Chalk &Talk Group discussion	[R.Lakshmi]

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LESSON PLAN
2021-2022

Class : III B.Sc. IT **Semester : VI**
Sub. Code : 17162 **Total Hours : 75 Hours**
Title of the Paper: Data Mining and Warehousing

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 22	**I**	**Introduction:** Data Mining – Data Mining on what kind of Data – What kind of Patterns can be Mined - Which Technologies are used - Which kind of applications are targeted - Major issues in Data Mining.	15	Chalk & Talk PPT	R.Vishnupriya [R.Vishnupriya]
March 22	**II**	**Data Preprocessing:** Data preprocessing an over view-Data cleaning-Data Reduction- Data Transformation and Data Discretization.	15	Chalk & Talk PPT	R.Vishnupriya [R.Vishnupriya]
Apr 22	**III**	**Data Warehousing and On-Line Analytical Processing:** Data Warehouse Basic concepts - Data Warehouse modeling Data cube and OLAP - Data Warehouse design and usage - Data Warehouse implementation-Data generalization by attribute-oriented induction.	15	Chalk & Talk PPT	R.Vishnupriya [R.Vishnupriya]
May 22	**IV**	**Classification Basic Concepts:** Basic Concepts - Decision Tree induction - Bayes classification methods - Rule-Based Classification - Model Evaluation and selection -	15	Chalk & Talk	R.Vishnupriya [R.Vishnupriya]

		Techniques to improve classification Accuracy.			
June 22	**V**	**Cluster Analysis Basic concepts and Methods:** Cluster Analysis - Partitioning Methods - Hierarchical Methods - Density-Based Methods - Grid –Based Methods -Evaluation of Clustering.	15	Chalk & Talk PPT	[R.Vishnupriya]

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LESSON PLAN
2021-2022

Class :III B.Sc(IT) **Semester :IV**

Sub. Code : 17I42

Title of the Paper: Computer Graphics **Total Hours : 15 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 2022	I	**A Survey of Computer Graphics:** Computer Aided Design – Presentation Graphics – Computer Art – Entertainment – Education and Training – Visualization – Image Processing – GUI. **Overview of Graphics Systems:** Video Display Devices- Raster Scan System – Random Scan System – Graphics Monitors and Workstations – Input Devices – Hard Copy Devices – Graphics Software	15	Chalk & Talk PPT	G.Amudha

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LESSON PLAN
2021-2022

Class : I M.Sc. IT **Semester : II**
Sub. Code : 21OPIE2B **Total Hours : 75 Hours**
Title of the Paper: Theory of Computation

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan-2022	I	**Finite Automata :** Introduction – Finite State Machine – Acceptance of Strings and Languages – Deterministic Finite Automata – Examples: 2.1 to 2.10 – NonDeterministic Finite Automata – Significance of Non Deterministic Finite Automaton – NFA with ε-Transitions – Conversions and Equivalence – NFA to DFA Conversion – Examples: 2.39 & 2.40 – Minimization of FSM – Equivalence between Two FSM's.	15	Chalk & Talk, PPT	S.Sumathi
Feb- 2022	II	**Regular Expressions :** Introduction – Regular Set – Regular Expressions – Finite Automata and Regular Expressions – Conversion of Finite Automata to Regular Expressions – Identity Rules – Proving Languages not to be Regular – Applications of Regular Expression – Closure Properties of Regular Languages.	15	Chalk & Talk, PPT, Exercise, Quiz	S.Sumathi

Mar-2022	**III**	**Context Free Grammar :** Introduction – Regular Grammar – Equivalence between Regular Grammar and FA – Context Free Grammar – Derivation and languages – Derivation Trees – Relationship between Derivation and Derivation Tree – Ambiguity – Simplification of CFG.	**15**	**Chalk & Talk, PPT, Exercise**	**S.Sumathi**
Apr-2022	**IV**	**Properties of Context Free Languages:** Introduction – Normal Forms – Applications of Context free Grammar – Properties of Context Free Languages.	**15**	**Chalk & Talk, PPT, Quiz, Assignment**	**S.Sumathi**
May-2022 & June-2022	**V**	**Turing Machines :** Introduction – Model of Turing machine – Definition of Turing machine – Programming Techniques for Turing Machines – Computable Language and Functions – Examples: 7.1 to 7.8 – Two way infinite Tape – Examples: 7.16 & 7.17 – Chomsky's Hierarchy – Power of Turing Machine – Comparison of FM, PDA and TM.	**15**	**Chalk & Talk, PPT, Seminar, Assignment Group Discussion**	**S.Sumathi**

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LESSON PLAN
2021-2022

Class : I M.Sc(IT) **Semester :II**
Sub. Code : 21OPI21

Title of the Paper: Operating System Concepts **Total Hours : 75 Hours**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Feb 2022	I	**Introduction:** What is an Operating System– Mainframe Systems – Desktop Systems –Multiprocessor Systems–Distributed Systems – Real Time ystems.	14	Chalk & Talk, PPT	[G.Amudha] G.Amudha
March 2022	II	**Process Management:** Process Concept – Process Scheduling – Operations on Processes – Cooperating Processes – Inter process Communication - Scheduling Algorithms - Threads: Overview – Multithreading models.	15	Chalk & Talk, Spot test, Exercise, Assignment, PPT, Video material.	[G.Amudha] G.Amudha
April 2022	III	**Deadlocks:** System model – Deadlock Characterization – Methods for handling Deadlocks – Deadlock Prevention – Deadlock Avoidance – Deadlock Detection – Recovery from Deadlock	16	Chalk & Talk, Exercise, PPT, video material	[G.Amudha] G.Amudha
May 2021	IV	**Memory Management:** Background – Swapping – Contiguous Memory Allocation – Paging Segmentation - Segmentation	15	Chalk & Talk, Exercise, Assignment, video material,	[G.Amudha] G.Amudha

		with Paging. Virtual Memory: Background – Demand Paging – Process Creation – Page Replacement.		Group Discussion	
June 2022	V	File-system interface-file concepts-access methods directory structure-file system mounting-file sharing-protection	15	Quiz, Chalk & Talk, Exercise , Spot test.	[G.Amudha] G-10-22

Signature of the HOD

Signature of the Principal

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LESSON PLAN
2022-2023

Class : M.Sc. IT **Semester :II**
Course Code : 21OPI22
Course Title: Digital Image Processing **Total Hours : 75 Hrs.**

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan 2023	I	**Digital Image Processing:** Origins of Digital Image Processing, Steps in Digital Image Processing, Digital Image Fundamentals: Elements of Visual Perception, Light and the Electromagnetic Spectrum, Image Sensing and Acquisition, Image Sampling and Quantization, Basic Relationships between Pixels, Mathematical Tools used in Digital Image Processing.	14	Chalk & Talk, PPT	R.Lakshmi
Feb 2023	II	**Image Transformation & Filters**: Basic Intensity Transformation Functions, Histogram Processing, Fundamentals of Spatial Filtering, Smoothing Spatial Filter, Sharpening Spatial Filters, Combining Spatial Enhancement methods, Fuzzy techniques for Intensity Transformation and Spatial Filtering. Filtering in the Frequency Domain: Preliminary Concepts, Sampling and the Fourier Transforms of Sampled	14	Chalk & Talk, Spot test, Exercise, Assignment, PPT, Video material	R.Lakshmi

		Functions, The Discrete Fourier Transform (DFT), Properties of the 2-D DFT, Filtering in the Frequency Domain, Image Smoothing and Sharpening using Frequency Domain Filters, Selective Filtering.			
Mar 2023	**III**	**Image Restoration, Reconstruction and Image Segmentation:** Image Degradation/Restoration process, Noise Models, Restoration in the presence of Noise only-Spatial Filtering, Periodic NoiseReduction by Frequency Domain Filtering, Linear, Position-Invariant Degradations, Estimating the Degradation Functions, Inverse Filtering, Wiener Square Error Filtering, Constrained Least Square Filtering, Geometric Mean Filter, Image Reconstruction from Projections. Image Segmentation: Point, Line and Edge Detection, Thresholding, Region- Based Segmentation, Segmentation Using Morphological Watersheds, Use of Motion in Segmentation	15	Chalk & Talk, Exercise, PPT, videomaterial	[R.Lakshmi]
April 2023	**IV**	**Color Image Processing:** Color Fundamentals,Color Models, Pseudo color Image Processing, Full Color Image Processing, Color Transformation, Smoothing and Sharpening, Image Segmentation Based on Color, Noise in Color Images. Wavelets and Multi	15	Chalk & Talk, Spot test, Exercise, Assignment, PPT, Video material.	R.Lakshmi

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LESSON PLAN
2021-2022

Class : I M.Sc. IT | **Semester : II**
Sub. Code : 21OPINM2 | **Total Hours : 30 Hours**
Title of the Paper: TECHNOLOGIES OF INTERNET

Month	Unit	Description of the Syllabus	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec-2022	I	**Internet:** Internet Definition - Network Definition-Common terminologies – Node - Host-Workstation -Network Administrator - Network security - Network Components – Types of Networks - Addressing in Internet – DNS - Network topologies.	6	Chalk & Talk, PPT	R.Raja Segeetha
Jan- 2023	II	**Browsers and Search engines:** Browsers – browser - Introduction – Parts of a browser window -Running a browser - working with aBrowser. Search Engines: What is Search Engine? - Types of Search Engines.	6	Chalk & Talk, PPT, Exercise, Quiz	R.Raja Segeetha
Feb-2023	III	**E-mail:** E-mail - E-mail Networks and Servers - E-mail Protocols - Structure of E-mail - Attachments – E-mail Clients - web based E-mail-Address book – Signature File.	6	Chalk & Talk, PPT, Exercise	R.Raja Segeetha
Mar2023	IV	**Computer Security:** Types of	6	Chalk & Talk,	R.Raja Segeetha

		Security. **Internet Security:** Network Layer Security – Transport Layer Security – Application Layer Security - Firewalls		**Group Discussion**	

Signature of the HOD

Signature of the Principal