

**M.L. Dahanukar College of Commerce**

**Teaching Plan: 2022 - 23**

**Department: I.T.**

**Class: F.Y.B.Sc.(I.T.)**

**Semester: I**

**Subject: Programming Principles with C**

**Name of the Faculty: Srushty Naik**

<b>Month</b>	<b>Topics to be Covered</b>	<b>Internal Assessment</b>	<b>Number of Lectures</b>
July	Unit1- Introduction: Algorithms, History of C, Structure of C Program. Program Characteristics, Compiler, Linker and pre-processor, pseudo code statements and flowchart symbols, Desirable program characteristics. Program structure. Compilation and Execution of a Program, C Character Set, identifiers and keywords, data types and sizes, constants and its types, variables, Character and character strings, typedef, typecasting		12
August	Unit 2- Type of operators: Arithmetic operators, relational and logical operators, Increment and Decrement operators, assignment operators, the conditional operator, Assignment operators and expression, Precedence and order of Evaluation Block Structure, Initialization, C Preprocessor Control Flow: Statements and Blocks, If-Else, Else-If, Switch, Loops- While and For LoopsDo-while, Break and Continue, Goto and Labels Unit 3 - Functions and Program Structure: Basics of functions. User defined and Library functions		14
September	Unit 3- Function parameters, Return values, Recursion. External variables, Scope Rules, Standard Input and Output, Formatted Output- printf() and Formatted Input- scanf(), Line		22

	<p>Input and Output, Error Handling- StdErr and Exit, Header Files</p> <p>Unit 4 - Pointer and Arrays Pointer and Addresses, Pointer and Function Arguments, Pointer and Arrays, Address Arithmetic, Character Pointers and Functions, Pointer Arrays: Pointers and Functions, Multidimensional Array, Command-line Arguments, Pointers to Functions, Dynamic memory allocation</p>		
October	<p>Unit 5- Structures: Basics of structures, Structures and Functions, Arrays of Structures, Pointers to Structures, Unions, Bit-fields</p> <p>File management in C: Defining and Opening file Closing a file, Input / Output operations on file, Error handling in C, Random access to files, Command line arguments.</p>		12

**Sign of Faculty**

**Sign of Coordinator**

# M.L. Dahanukar College of Commerce

## Teaching Plan: 2022 - 23

Department: I.T.

Class: F.Y.B.Sc.(I.T.)

Semester:I

Subject: Digital Logic and Applications

Name of the Faculty: Ms.Shruti Save

Month	Topics to be Covered	Internal Assessment	Number of Lectures
July	<b>Unit I:</b> Digital Systems and Binary numbers Introduction to Number systems, Positional Number systems, Conversions (converting between bases), Non positional number systems, Unsigned and Signed binary numbers, Binary Codes, Number representation and storage in computer system.		12
August	<b>Unit I:</b> Logic gates and Logic Circuits Basic and Universal Gates <b>Unit II:</b> <b>Boolean algebra and Gate level minimization</b> Introduction, Postulates of Boolean Algebra, Two Valued Boolean Algebra, Principle of Duality, Basic Theorems of Boolean Algebra, Boolean Functions and their Representation, Gate-Level Minimization, QuineMcCluskey Method		22
September	<b>Unit III:</b> Combinational logic Introduction, Analysis and Design Procedure for Combinational Logic Circuits, Types of Combinational Circuit. <b>Unit IV:</b> Sequential circuits Introduction, Latch, Flip-Flops, Registers, Counters		20
October	<b>Unit V:</b> Applications Bit Arithmetic and Logic unit, Carry lookahead generator, Binary Multiplication and Division algorithm, Booth's multiplication algorithm		06

Sign of Faculty

Sign of Coordinator

**M.L. Dahanukar College of Commerce**

**Teaching Plan: 2022 - 23**

**Department: I.T.**

**Class: F.Y.B.Sc.(I.T.)**

**Semester: I**

**Subject: Digital Logic and Applications**

**Name of the Faculty: Mr. Chayan Bhattacharjee**

<b>Month</b>	<b>Topics to be Covered</b>	<b>Internal Assessment</b>	<b>Number of Lectures</b>
July	<b>Unit 1:</b> Digital Systems and Binary numbers Introduction to Number systems, Positional Number systems, Conversions (converting between bases), Non positional number systems, Unsigned and Signed binary numbers, Binary Codes, Number representation and storage in computer system.		10
August	<b>Unit 1 (cont.):</b> Logic gates and Logic Circuits Basic and Universal Gates <b>Unit 2:</b> Boolean algebra and Gate level minimization, Introduction, Postulates of Boolean Algebra, Two Valued Boolean Algebra, Principle of Duality, Basic Theorems of Boolean Algebra, Boolean Functions and their Representation, Gate-Level Minimization (Simplification of Boolean Function), Quine-McCluskey Method, Review questions <b>Unit 3:</b> Combinational logic Introduction, Analysis and Design Procedure for Combinational Logic Circuits		20
September	<b>Unit 3 (cont.):</b> Types of Combinational Circuit, Review Questions <b>Unit 4:</b> Sequential circuits Introduction, Latch, Flip-Flops, Registers, Counters, Review Questions		20
October	<b>Unit 5:</b> Applications Bit Arithmetic and Logic unit, Carry lookahead generator, Binary Multiplication and Division algorithm, Booth's multiplication algorithm		10

**Sign of Faculty**

**Sign of Coordinator**

**M.L. Dahanukar College of Commerce**

**Teaching Plan: 2022 - 23**

**Department: I.T.      Class: F.Y.Bsc.I.T.      Semester: I**

**Subject: Fundamentals of Database Management Systems**

**Name of the Faculty: Snehal Borade**

<b>Month</b>	<b>Topics to be Covered</b>	<b>Internal Assessment</b>	<b>Number of Lectures</b>
July	Database system- concept and Architecture, Relational model and Relational database constraints. Relational Algebra. Conceptual modelling and database design: Data modelling using the Entity Relationship model (ER).The enhanced entity relationship model.		12
August	Relational database design by ER and EER model. Practical database design methodology and use of UML diagrams. Database Design theory and normalization: Basics of functional dependencies and normalization for relational databases.		20
September	Relational database design and further dependencies. Introduction to SQL , Complex queries, triggers, views, joining database tables and schema modification. Query Processing and optimization. File structure, hashing and indexing. Transaction management and concurrency control and recovery.		20
October	Introduction to transaction processing concepts and theory. Concurrency control technique. Database recovery technique.		08

**Sign of Faculty**

**Sign of Coordinator**

**M.L. Dahanukar College of Commerce**

**Teaching Plan: 2022 - 23**

Department: I.T.

Class: **F.Y.B.Sc.(I.T.)**

Semester: I

Subject: **COMPUTATIONAL LOGIC & DISCRETE STRUCTURE**

Name of the Faculty: Mrs. Manisha Warekar

<b>Month</b>	<b>Topics to be Covered</b>	<b>Internal Assessment</b>	<b>Number of Lectures</b>
July	Set Theory Relation		12
August	Functions & Algorithm Probability Counting Advance Counting		20
September	Graph Theory Directed Graph Binary Trees		20
October	Lattice		8

**Sign of Faculty**

**Sign of Coordinator**

**M.L. Dahanukar College of Commerce**

**Teaching Plan: 2022 - 23**

**Department: I.T.**

**Class: F.Y.B.Sc.(I.T.)**

**Semester: I**

**Subject: Technical Communication Skills**

**Name of the Faculty: Kajal Shah**

<b>Month</b>	<b>Topics to be Covered</b>	<b>Internal Assessment</b>	<b>Number of Lectures</b>
July	Unit I Chapter 1 full(Seven C's of Effective Communication) Chapter 2 , (Understanding Business Communication) 2.1 to 2.4		12
August	Unit 1, chapter 2 from 2.5. Unit II Chapter 3 full (Writing Business Messages and Documents) Ch 4. Developing Oral Communication Skills for Business.		20
September	Unit III & Unit IV full Ch. 5 Oral Communication Skills for Business and Communication Needs Ch.6 Understanding Specific Communication Needs.		20
October	Unit V Chapter 7 – Presentation Process		08

**Sign of Faculty**

**Sign of Coordinator**