

INFORMATION TECHNOLOGY (054)

CLASS – X
Syllabus (2026-2027)

	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical
PART A	Employability Skills			
	Unit 1: Communication Skills-II	10		2
	Unit 2: Self-Management Skills-II	10		3
	Unit 3: ICT Skills-II	10		1
	Unit 4: Entrepreneurial Skills-II	15		3
	Unit 5: Green Skills-II	05		1
	Total	50		10
PART B	SUBJECT SPECIFIC SKILLS	Theory	Practical	Marks
	Unit 1: Digital Documentation (Advanced) using LibreOffice Writer	12	18	8
	Unit 2: Electronic Spreadsheet (Advanced) using LibreOffice Calc	15	23	10
	Unit 3: Database Management System using LibreOffice Base	18	27	12
	Unit 4: Maintain Healthy, Safe and Secure Working Environment	15	22	10
	Total	60	90	40
PART C	PRACTICAL WORK			
	Practical Examination			
	• Digital Documentation (Advanced) using LibreOffice Writer	5 Marks		20
	• Electronic Spreadsheet (Advanced) using LibreOffice Calc	5 Marks		
	• Database Management System using LibreOffice Base	10 Marks		
	• Viva Voce	10 Marks		10
Total			30	
PART D	PROJECT WORK/FIELD VISIT: Any Interdisciplinary Real World Case Study to be taken. Summarized data reports of same can be presented in base. Input should be taken using forms and output should be done using reports using base. Documentation of the case study should be presented using writer.			10
	PORTFOLIO/ PRACTICAL FILE: (Portfolio should contain printouts of the practical done using Writer, Calc and Base with minimum 5 problems of each)			10
	Total			20
	GRAND TOTAL	200		100

DETAILED CURRICULUM/ TOPICS:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	15
5.	Unit 5: Green Skills-II	05
	TOTAL	50

Part-B – SUBJECT SPECIFIC SKILLS

- Unit 1: Digital Documentation (Advanced)
- Unit 2: Electronic Spreadsheet (Advanced)
- Unit 3: Database Management System
- Unit 4: Web Applications and Security

Unit 1: Digital Documentation (Advanced) using LibreOffice Writer

SUB UNIT	LEARNING OUTCOMES	THEORY	PRACTICAL
Chapter 1: Introduction To Styles	Learn to create, update, and apply various styles in Libre Office Writer for effective and consistent document formatting.	<ul style="list-style-type: none">• Styles/ categories in Writer<ul style="list-style-type: none">➤ Page➤ Paragraph➤ Character➤ Frame➤ List➤ Table• Styles and Formatting• Fill Format• Creating a new style<ul style="list-style-type: none">➤ From Selection method➤ Drag and Drop method• Updating a new style• Load style from template or document.• Applying styles.	<ul style="list-style-type: none">• List Style Categories: Open the Styles and Formatting window, list available style categories, and select one style from each.• Use Fill Format: Apply a style to multiple areas of your document quickly using the Fill Format tool.• Create and Update a New Style: Create a new style from selected text and update it by modifying its attributes.• Load a Style from a Template or Document: Import and apply a style from a template or another document to your current work.• Create a New Style Using Drag-and-Drop:

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<p>Chapter 2: Working with Images</p>	<p>Able to insert, modify, and position images and drawing objects in a document, using various methods and options for effective document layout and formatting.</p>	<ul style="list-style-type: none"> • Inserting an Image in a Document <ul style="list-style-type: none"> ➤ Insert Image Option ➤ Drag and Drop option ➤ Copy and Paste method ➤ Inserting an image by linking • Options to modify image using image toolbar, resize, crop and delete an image. • Drawing Objects • Creating drawing objects • Setting or changing its properties. • Resizing and grouping drawing objects. • Positioning image in the text. • Arrangement • Anchoring • Alignment • Text Wrapping 	<p>Create a new style by dragging and dropping formatted text into the Styles and Formatting panel.</p> <ul style="list-style-type: none"> • Insert an Image: Insert an image into a document using options such as Insert Image, Drag and Drop, Copy and Paste, and linking. • Modify an Image: Use the image toolbar to modify an image by resizing, cropping, and deleting it. • Create Drawing Objects: Create various drawing objects within your document. • Set or Change Drawing Object Properties: Adjust the properties of drawing objects, including color, line style, and fill. • Resize and Group Drawing Objects: Resize individual drawing objects and group multiple objects together for better document organization. • Position the Image in the Text: Adjust the image's position in the text using arrangement, anchoring, alignment, and text wrapping options.
<p>Chapter 3: Advanced Features of Writer</p>	<p>Acquire skills in creating, customizing, and managing a Table of Contents, using and editing templates, and tracking and reviewing changes in</p>	<ul style="list-style-type: none"> • Table of contents • Hierarchy of headings • Creating a Table of Content (ToC) • Customization of Table Contents(ToC) • Maintaining a Table of Contents(ToC) 	<ul style="list-style-type: none"> • Create a Table of Contents (ToC): Generate and customize a Table of Contents in a document. • Maintain a Table of Contents: Update or delete the Table of Contents • Use Templates: Create,

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	documents effectively.	<ul style="list-style-type: none"> Updating ToC Deleting ToC Using templates Creating a Template Using In-built/Saved Templates Using Online Templates Importing a Template Editing a Template Moving a Template Exporting a Template Applying Templates to a Blank Document Track Changes Feature Preparing a Document for Review Recording Changes Accepting and Rejecting Changes Adding Comments Deleting Comments Comparing Documents 	import, and apply templates to a blank document, using in-built, saved, or online templates. <ul style="list-style-type: none"> Edit a Template: Modify, move, and export an existing template. Track Changes: Prepare a document for review by recording, accepting, or rejecting changes, and manage comments by adding or deleting them. Compare Documents: Compare two versions of a document to identify and review differences.

Unit 2: Electronic Spreadsheet (Advanced) using LibreOffice Calc

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Chapter 4: Analyse data using scenarios and goal seek	Learn skills in consolidating data, using groups and subtotals, performing what-if analysis and scenarios, and utilizing the Goal Seek tool for decision-making.	<ul style="list-style-type: none"> Consolidating Data Groups and Subtotals What-if Scenarios What-if Analysis Tool Goal Seek 	<ul style="list-style-type: none"> Use Consolidating Data: Aggregate data from multiple sources into a single summary. Create Subtotals: Apply subtotals to data groups to summarize and analyze information. Use “What-If” Scenarios: Create and analyze different scenarios to forecast outcomes based on varying inputs. Use “What-If” Tools: Use tools like Scenario Manager for detailed what-if analyses. Use Goal Seek and Solver: Use Goal Seek to find specific input values needed to achieve a

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<p>Chapter 5: Using Macros in Spreadsheet</p>	<p>Develop skills in recording, running, creating, and organizing macros, and using them as functions for document automation.</p>	<ul style="list-style-type: none"> • Recording a Macro • Running a Macro • Creating and Organising a Simple Macro • Macro as a Function 	<p>desired result, and apply Solver for more complex problems.</p> <ul style="list-style-type: none"> • Demonstrate the Use of a Macro Recorder: Record a macro to automate repetitive tasks. • Create a Simple Macro: Develop a basic macro to perform a specific function. • Use a Macro: Execute an existing macro to automate tasks in a document. • Pass Arguments to a Macro: Provide arguments to a macro to customize its behavior. • Pass the Arguments as Values: Supply values as arguments to a macro for dynamic operation. • Write Macros as Built-in Functions: Create macros that function similarly to built-in functions for enhanced functionality. • Access Cells Directly: Write macros to directly manipulate cell data in spreadsheets. • Sort Columns Using a Macro: Develop and use a macro to sort columns in a spreadsheet.
<p>Chapter 6: Linking Spreadsheet Data</p>	<p>Learn to set up multiple sheets, create references and hyperlinks within and across documents, and link to external and registered data sources.</p>	<ul style="list-style-type: none"> • Setting up multiple sheets. • Creating reference to other sheets by using keyboard and mouse. • Creating reference to another document by using keyboard and mouse. • Hyperlinks to the Sheet • Relative and Absolute Hyperlinks • Creating Hyperlinks 	<ul style="list-style-type: none"> • Setup Multiple Sheets: Insert and organize new sheets within a workbook. • Create References to Other Sheets: Use keyboard and mouse to create references between different sheets in a workbook. • Create References to Other Documents: Use keyboard and mouse to link data from one document to another. • Create, Edit, and Remove Hyperlinks: Add, modify, and delete hyperlinks to sheets within a workbook. • Link to External Data: Connect and import data from external sources into your document. • Link to Registered Data Sources: Establish links to registered data sources for data integration.

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		<ul style="list-style-type: none"> • Editing a Hyperlink • Linking to External Data • Linking to Registered Data Sources 	
<p>Chapter 7: Share and Review a Spreadsheet</p>	<p>Develop the ability to share, open, and save shared spreadsheets, track and review changes, and handle comments and merging for effective collaboration.</p>	<ul style="list-style-type: none"> • Sharing Spreadsheet • Opening and saving a shared spreadsheet. • Recording changes. • Add, Edit and Format the comments. • Reviewing Changes – View, Accept or Reject Changes • Merging and comparing. 	<ul style="list-style-type: none"> • Set Up a Spreadsheet for Sharing: Configure a spreadsheet to enable sharing with others. • Open and Save a Shared Spreadsheet: Access and save changes to a spreadsheet that has been shared with you. • Record Changes: Track modifications made to the spreadsheet. • Add, Edit, and Format Comments: Insert, modify, and format comments within the spreadsheet. • Review Changes: View, accept, or reject changes made by others in the shared spreadsheet. • Merge and Compare Sheets: Combine and compare different sheets to integrate data effectively.

Unit 3: Database Management System using LibreOffice Base

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<p>Chapter 8: Introduction to Database Management System</p>	<p>Understand data and information concepts, the advantages of databases, various data models and key terminology and objects of relational database systems.</p>	<ul style="list-style-type: none"> • Data and Information • Databases and DBMS • Advantages of database, • Data Models <ul style="list-style-type: none"> ➢ Hierarchical Data Model ➢ Network Data Model ➢ Relational Data Model • Relational database Model <ul style="list-style-type: none"> ➢ RDBS Terminology ➢ Objects of an RDBMS 	<ul style="list-style-type: none"> • Identify Data and Information: Distinguish between data and information within a database context. • Identify Fields, Records, and Tables: Recognize and describe fields, records, and tables in a database. • Prepare a Sample Table: Create a sample table with standard fields to illustrate database structure. • Identify Different Types of Data Models: Identify and describe various data models such as hierarchical, network, and relational. • Different Types of Keys: Recognize and explain different types of keys used in databases, such as primary and foreign keys. • Identify Different Objects of RDBMS: Identify and describe different objects in a relational database management system (RDBMS), including tables, queries, and forms.
<p>Chapter 9: Starting with LibreOffice Base</p>	<p>Learn to navigate LibreOffice Base, manage data types, create and save tables using various methods, set primary keys, and perform data entry, editing, sorting, and record deletion.</p>	<ul style="list-style-type: none"> • Introduction to LibreOffice Base • Data types • Starting with LibreOffice • User Interface Of LibreOffice Base • Opening a Database • Creating a Table <ul style="list-style-type: none"> ➢ Using a Wizard ➢ Using design view, • Setting primary key • Saving a Table 	<ul style="list-style-type: none"> • Start LibreOffice Base and Observe the Main Window: Launch LibreOffice Base and familiarize yourself with the main window's components. • Create a Sample Table Using Wizard: Use the wizard to create a sample table in any category. • Create Different Tables from Available List: Practice creating various tables by selecting fields from the available options. • Assign Data Types and Set Primary Key: Define data types for fields and set a primary key for the table. • Edit the Table in Design View: Modify the table structure using the design view. • Enter Data in the Fields: Input

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		<ul style="list-style-type: none"> • Entering data into table • Navigating through the table • Editing Data • Deleting Records from Table • Sorting Data in the Table 	<p>data into the fields of your table.</p> <ul style="list-style-type: none"> • Delete Records from Table: Remove records from the table as needed. • Arrange Data in Ascending or Descending Order: Sort the table data in ascending or descending order
<p>Chapter 10: Working with Multiple Tables</p>	<p>Develop skills in editing and deleting tables, creating and managing table relationships, and ensuring referential integrity.</p>	<ul style="list-style-type: none"> • Editing and Deleting tables, • Relationships between tables • Types of Relationships— one to one, one to many, many to many • Advantages of Relating Tables in a Database • Creating Relationships between Tables • Referential Integrity 	<ul style="list-style-type: none"> • Insert Data in the Table: Add new data entries to a table. • Edit Records in the Table: Modify existing records within the table. • Delete Records from Table: Remove specific records from the table. • Sort Data in the Table: Arrange data in ascending or descending order within the table. • Create and Edit Relationships: Establish and modify relationships between tables, including one-to-one, one-to-many, and many-to-many. • Enter Various Field Properties: Set and adjust different properties for fields in the table.
<p>Chapter 11: Queries in Base</p>	<p>Acquire skills in creating and editing queries using both wizards and design view, and working with numerical data in queries.</p>	<ul style="list-style-type: none"> • Queries • Query creation using wizard • Creation of query using design view • Editing a query, • Working with Numerical Data 	<ul style="list-style-type: none"> • Prepare a Query for Given Criteria: Create a query based on specified criteria. • Create a Query Using Wizard and Design View: Demonstrate how to generate a query using both the wizard and design view. • Edit a Query: Modify an existing query to update its criteria or structure. • Apply Various Criteria in a Query: Demonstrate applying different criteria in a query, including single field, multiple fields, and wildcard searches. • Perform Calculations Using Query in Base: Execute

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			calculations within a query in LibreOffice Base.
Chapter 12: Forms and Reports	Able to create and modify forms and reports in LibreOffice Base, use the Form Controls Toolbar, and insert additional controls, titles, headings, and date/time elements in reports.	<ul style="list-style-type: none"> • Forms in BASE. • Creating form using wizard, • Modifying a Form • Form Controls Toolbar • Report in Base • Inserting other controls in report • Inserting Titles & Headings • Inserting Date & Time • 	<ul style="list-style-type: none"> • Create a Form Using Form Wizard: Generate a form by following the steps in the Form Wizard. • Enter or Remove Data from Forms: Input new data or delete existing data using forms. • Modify Forms: Demonstrate how to adjust and customize forms. • Change Label and Background: Modify the label text and background color or design of a form. • Search Records Using a Form: Use the form to find specific records based on search criteria. • Insert and Delete Records Using Form View: Add new records or remove existing ones through the Form View. • Create a Report Using Report Wizard: Illustrate the steps to generate a report using the Report Wizard. • Demonstrate Various Report Examples: Provide examples of different types of reports created using the Report Wizard.

Unit 4: Maintain Healthy, Safe and Secure Working Environment

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Chapter 13. Health, Safety and Security at Workplace	Understand workplace health, safety, and security policies, identify various hazards, and learn how to manage risks and maintain a safe working environment.	<ul style="list-style-type: none"> • Introduction to Health, Safety, and Security At Workplace • Policies and Procedures for Healthy, Safety and Security • Reasons for Health, Safety, and Security Programs or Policies in the Workplace • Workplace Safety Hazards • Physical Hazards • Falling Off Heights, Slipping and Tripping • Electrical Hazards • Fire Hazards • Health Hazards 	<ul style="list-style-type: none"> • Practice Basic Safety Rules: Implement fire safety measures, prevent falls and slips, ensure electrical safety, and apply first aid procedures to protect workers and prevent accidents.

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		<ul style="list-style-type: none"> • Potential Sources of Hazards in an Organisation • Hazards using Computers • Handling Office Equipment • Handling Objects • Stress at Work • Working Environment • Hazard Control • Safety Guidelines Checklist 	
<p>Chapter 14. Workplace Quality Measures</p>	<p>Learn about air and water quality monitoring, office ergonomics, health and safety guidelines for computer use, and methods to reduce risks associated with musculoskeletal problems and other work-related issues.</p>	<ul style="list-style-type: none"> • Introduction • Air and Water Quality Monitoring Process • Guidelines for Clean Air and Clean Water • Importance of Cleanliness at Workplace • Office Ergonomics • Computer Health and Safety Tips • Musculoskeletal Problems: Occupational Overuse Syndrome, Strain in Legs and Feet, Eye Strain, • To reduce the risks of visual problems: Headaches, Obesity, Stress Disorders, Injuries from Laptop Use, Sleeping Problems • Health and Safety Requirements for Computer Workplace • Cautions while Working on the Computer 	<ul style="list-style-type: none"> • Illustrate Handling Accidents at Workplace: Demonstrate the steps to manage and respond to accidents in the workplace. • Demonstrate Following Evacuation Plan: Show how to effectively follow the evacuation plan and procedures during an emergency.
<p>Chapter 15. Prevent Accidents and Emergencies</p>	<p>Able to identify and handle accidents and emergencies, follow company policies, manage different types of accidents and emergencies, and apply fire safety and first aid procedures effectively.</p>	<ul style="list-style-type: none"> • Accident and Emergencies: <ul style="list-style-type: none"> ➤ Notice and Correctly Identify Accidents and Emergencies ➤ Get help Promptly and in the Most Suitable Way ➤ Follow Company Policies and Procedures for Preventing Further Injury While Waiting for Help to Arrive ➤ Act within the Limits of your Responsibility and Authority when Accidents and Emergencies Arise, ➤ Promptly Follow Instructions given by Senior Staff and the Emergency Services 	<ul style="list-style-type: none"> • Identify Hazards and Sources of Hazards: Recognize potential hazards and their sources in the workplace. • Identify Problems at Workplace: Assess workplace issues that could lead to accidents. • Practice General Evacuation Procedures: Execute evacuation

SUB UNIT	LEARNING OUTCOMES	THEORY	PRACTICAL
		<ul style="list-style-type: none"> • Types of Accidents <ul style="list-style-type: none"> ➤ Trip and Fall ➤ Slip and Fall ➤ Injuries caused due to Escalators or Elevators (or lifts) ➤ Accidents due to Falling of Goods ➤ Accidents due to Moving Objects • Handling Accidents: <ul style="list-style-type: none"> ➤ Attend to the Injured Person Immediately, ➤ Inform your Supervisor ➤ Assist your Supervisor • Types of Emergencies <ul style="list-style-type: none"> ➤ First Aid, ➤ Electrical Safety ➤ Evacuation • General Evacuation Procedures • Fire Hazards in the Workplace • Fire Prevention • Identification of Material and Ignition Sources • First Aid for Electrical Emergencies • Electrical Rescue Techniques 	<p>procedures in simulated emergency situations.</p>