CLASS X

INFORMATION TECHNOLOGY

(SUBJECT CODE – 402)

UNIT 1: DIGITAL DOCUMENTATION (ADVANCED)

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Create and Apply Styles in the document	• Styles/ categories in Word Processor • Using the Styles and Formatting window.* • Using Fill Format.* • Creating and updating new style from selection • Load style from template or another document. • Creating a new style using drag-and-drop.* • Applying styles.	• List style categories. Select the style from the Styles and Formatting window. • Use Fill Format to apply a style to many different areas quickly. • Create and update a new style from a selection. • Load a style from a template or another document. • Create a new style using drag-and drop.
S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
2.	Insert and use images in document	• Options to insert image to document from various sources. • Options to modify, resize, crop and delete an image. • Creating drawing objects, setting or changing its properties. Resizing and grouping drawing objects. • Positioning image in the text.	• Insert an image to document from various sources. • Modify, resize, crop and delete an image. • Create drawing objects • Set or change the properties of a drawing object • Resize and group drawing objects • Position the image in the text
3.	Create and use template	• Templates. • Using predefined templates. • Creating a template.* • Set up a custom template as the default.. • Editing a template • Changing to a different template. • Updating a Document*	• Create a template. • Use predefined templates. • Set up a custom default template. • Update a document. • Change to a different template. • Use the Template. • Update the document and save the changes.
4.	Create and customize table of contents	• Table of contents. Hierarchy of headings. Customization of table of contents. • Character styles. Maintaining a table of contents.	• Create a table of contents. Define a hierarchy of headings. • Customize a table of contents. • Apply character styles. Maintain a table of contents.

| 5 | Implement Mail Merge | • Advance concept of mail merge in word processing,
• Creating a main document,
• Creating the data source,
• Entering data in the fields,
• Merging the data source with main document,
• Editing individual documents.*
• Printing a letter and its address label | • Demonstrate to print the label using mail merge, do the following to achieve
• Create a main document,
• Create the data source,
• Enter data in the fields,
• Merge the data source with main document,
• Edit individual document,
• Print the letter and address label |

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
**UNIT 2: ELECTRONIC SPREADSHEET (ADVANCED)**			
1.	Analyse data using scenarios and goal seek.	• Using consolidating data. Creating subtotals. • Using "what if" scenarios. Using "what if" tools • Using goal seek and solver.	• Use consolidating data Create subtotals • Use "what if" scenarios Use "what if" tools • Use goal seek and solver

2.	Link data and spreadsheets	• Setting up multiple sheets. Creating reference to other sheets by using keyboard and mouse.
		• Creating reference to other document by using keyboard and mouse.*
		• Relative and absolute hyperlinks
		• Hyperlinks to the sheet.
		   ○ Linking to external data.
		   ○ Linking to registered data sources.
			• Setup multiple sheets by inserting new sheets.
			• Create reference to other sheets by using keyboard and mouse.
			• Create references to other documents by using keyboard and mouse.
			• Create, Edit and Remove hyperlinks to the sheet.
			• Link to external data.
			• Link to registered data source.

3.	Share and review a spreadsheet	• Setting up a spreadsheet for sharing.* • Opening and saving a shared spreadsheet. Recording changes. • Add, Edit and Format the comments. • Reviewing changes – view, accept or reject changes. Merging and comparing.	• Set up a spreadsheet for sharing. • Open and save a shared spreadsheet. • Record changes. • Add, Edit and Format the comments. • Review changes – view, accept or reject changes. • Merge and compare sheets.
4.	Create and Use Macros in spreadsheet	• Using the macro recorder. Creating a simple macro. Using a macro as a function. • Discuss Passing arguments to a macro. • Discuss Passing the arguments' area values. • Discuss Macros to work like built-in functions. • Accessing cells directly. • Sorting the columns using macro.	• Demonstrate the use of a macro recorder. • Create a simple macro. • Use a macro • Access cells directly • Using a macro. • Sort the columns using macro.

UNIT 3: DATABASE MANAGEMENT SYSTEM			
S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Appreciate the concept of Database Management System	• Concept and examples of data and information, • Concept of database, • Advantages of database, • Features of database, • Concept and examples of Relational database, • Concept and examples of field, record, table, database, • Concept and examples of Primary key, composite primary key, foreign key, • Relational Data base management system (RDBMS) software.	• Identify the data and information, • Identify the field, record, table in the database, • Prepare the sample table with some standard fields. • Assign the primary key to the field, • Identify the primary key, composite primary key, foreign key.
2.	Create and edit tables using wizard and SQL commands	• Introduction to a RDBMS • Database objects – tables, queries, forms, and reports of the database, • Terms in database – table, field, record, • Steps to create a table using table wizard* • Data types in database., • Option to set primary key Table Data View dialog box	• Start the RDBMS and observe the parts of main window, • Identify the data base objects Create the sample table in any category using wizard, Practice to create different tables from the available list and choosing fields from the available fields. • Assign data types of field, Set primary key, • Edit the table in design view, Enter the data in the fields. • Create and edit table using DDL Commands
3.	Perform operations on table	• Inserting data in the table, • Editing records in the table, • Deleting records from the table, • Sorting data in the table, Referential integrity, • Creating and editing relationships – one to one, one to many, many to many • Field properties(default, required and format)	Demonstrate to: • Insert data in the table, Edit records in the table, Delete records from table, Sort data in the table, • Create and edit relationships • one to one, one to many, many to many, • Enter various field properties.

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
4.	Retrieve data using query	• Database query, • Defining query, • Query creation using wizard,* • Creation of query using design view,* • Editing a query, • Applying criteria in query – single field, multiple fields, using wildcard, • Performing calculations, • Grouping of data, • Structured Query Language (SQL). • Introduction to DDL (purpose of- Create database, Create table, Alter table and Drop table)	• Prepare a query for given criteria, • Demonstrate to create query using wizard, and using design view, • Edit a query, • Demonstrate to apply various criteria in query – single field, multiple fields, using wild card, • Performing calculations using query in Base, • Demonstrate to group data, • Use basic SQL commands,
5.	Create Forms and Reports using wizard	• Introduction to Forms in DBMS.. • Creating form using wizard,* • Steps to create form using Form Wizard, * • Options to enter or remove data from forms • Modifying form, • Changing label, background, • Searching record using Form, • Inserting and deleting record using Form View, • Concept of Report in Base, • Creating Report using wizard, * • Steps to create a Report using Wizard. * • Insert date and time	• Illustrate the various steps to create Form using Form Wizard, • Enter or remove data from Forms, • Demonstrate to modify Forms, • Demonstrate to change label, background, • Search record using Form, • Insert and delete record using Form View, • Illustrate the various steps to create Report using Report Wizard, • Demonstrate various examples of Report.

UNIT 4: WEB APPLICATIONS AND SECURITY			
S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Working with Accessibility Options.	• Understand various types of impairment that impact computer usage • Computer Accessibility Dialog box and its tabs • Serial Keys	• Illustrate use of various options under Computer Accessibility like Keyboard, mouse, sound, display setting serial keys, cursor options • use of toggle keys, filter keys, sticky keys, sound sentry, show sounds etc.
2.	Understand Networking Fundamentals	• Network and its types. • Client Server Architecture, Peer to-peer (P2P) Architecture, • internet, World Wide Web, • benefits of networking • internet, getting access to internet, • internet terminology • Some of the commonly used Internet connectivity options • Data transfer on the Internet	• Identify applications of Internet • comparing various internet technologies • identifying types of networks and selecting internet
3.	Introduction to Instant Messaging	• learn key features of instant messaging • Creating an instant messaging account • Launching Google Talk* • Signing in into your Google Talk Account*	• Illustrate steps to create instant messaging account • Signing In into your Google Talk Account
4.	Chatting with a Contact – Google Talk	• learn to chat with a contact that is already added to your contact list. • sending text chat messages instantly by double-clicking on a contact. • general rules and etiquettes to be followed while chatting. • chatting on various types of messengers	• Illustrate chat with a contact and send messages, • chatting with various messenger services
5	Creating and Publishing Web Pages – Blog …-	• learn and appreciate a blog and its creation with the help of some blog providers* • set up title and other parameters in a blog posting comments • using offline blog editors	• Illustrate Blog Creation and setting various parameters in it

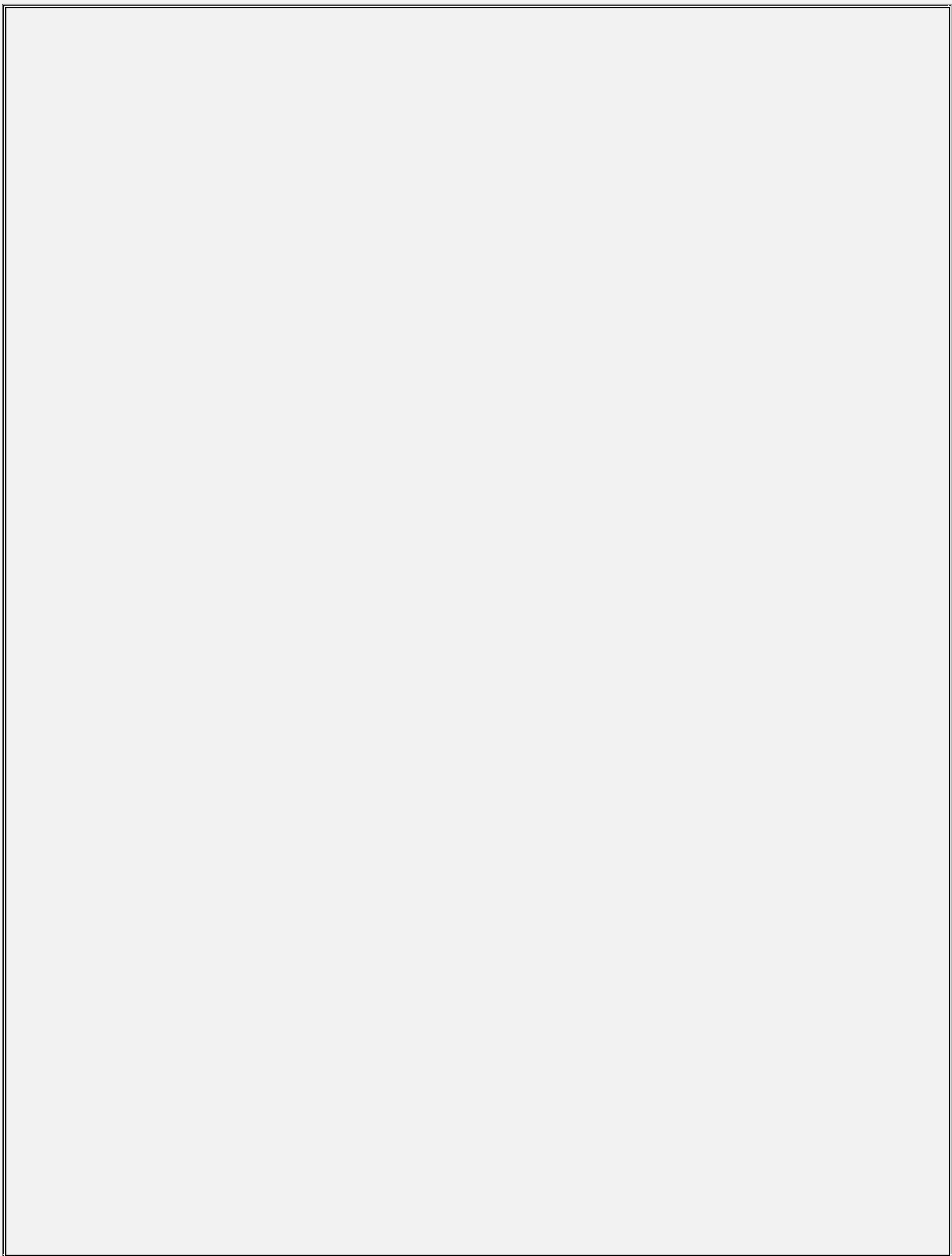| S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
6	Using Offline Blog Editors	• Concept to create blogs using a blog application and publish the blog whenever internet connectivity is available.	• Demonstration on how to create blogs using a blog application offline. • posting messages in an offline application • Publish the blog whenever internet connectivity is available using various examples
7	Online Transaction	• concept of e-commerce and various online applications • importance of secure passwords	• Illustration of online shopping using various ecommerce sites • Demonstration of securing passwords for online transactions.
8.	Internet Security	• Need of internet security • Cyber threats like phishing, email-spoofing, char spoofing etc. • best practices for internet security and secure passwords • concept of browser, cookies, backup, antivirus • clearing data in browsers	• illustration of internet security threats through various ways • cyber security tips • tips for secure passwords • demonstration of strong passwords using various websites. • clearing data stored in browser applications.
9.	Maintain workplace safety	• Basic safety rules to follow at workplace – Fire safety, • Falls and slips, Electrical safety, Use of first aid. • Case Studies of hazardous situations.	• Practice to follow basic safety rules at workplace to prevent accidents and protect workers – Fire safety, • Falls and slips, Electrical safety, Use of first aid.
10.	Prevent Accidents and Emergencies	• Accidents and emergency, • Types of Accidents, • Handling Accidents • Types of Emergencies.	• Illustrate to handle accidents at workplace, • Demonstrate to follow evacuation plan and procedure in case of an emergency.
11.	Protect Health and Safety at work	• Hazards and sources of hazards, • General evacuation procedures, • Healthy living.	• Identify hazards and sources of hazards, • identify the problems at workplace that could cause accidents, • Practice the general evacuation procedures in case of an emergency.

Unit 1: Communication Skills – II

Learning Outcome	Theory	Practical

1. Demonstrate knowledge of various methods of communication	1. Methods of communication
	  A. Verbal
	  B. Non-verbal
	  C. Visual
		1. Writing pros andcons of written, verbal and non- verbal communication
		2. Listing do's and don'ts for avoiding common body language mistakes

2. Provide descriptive and specific feedback	1. Communicationcycle and importance of feedback 2. Meaning and importance of feedback 3. Descriptive feedback - writtencomments or conversations 4. Specific and non-specific feedback	1. Constructing sentences for providing descriptive and specific feedback
3. Apply measures to overcome barriers in communication	1. Barriers to effective communication –types and factors 2. Measures to overcome barriers in effective communication	1. Enlisting barriersto effective communication 2. Applying measures to overcome barriersin communication
4. Apply principles of communication	1. Principles of effective communication 2. Cs of effective communication	1. Constructing sentences that convey all factsrequired by thereceiver 2. Expressing in a manner that shows respect to the receiver of the

		message 3. Exercises and games on applying7Cs of effective communication
5. Demonstrate basic writing skills	1. Writing skills tothe following: ➤ Sentence ➤ Phrase ➤ Kinds of Sentences ➤ Parts of Sentence ➤ Parts of Speech ➤ Articles ➤ Construction of a Paragraph	1. Demonstration and practice of writing sentencesand paragraphs on topics related to the subject

Unit 2: Self-management Skills – II

Learning Outcome	Theory	Practical
1. Apply stress management techniques	1. Meaning and importance of stress management 2. Stress management techniques – physical exercise, yoga, meditation 3. Enjoying, going to vacations andholidays with family and friends 4. Taking nature walks	1. Exercises on stress management techniques – yoga, meditation, physical exercises 2. Preparing a write-up on an essay on experiences during a holiday trip
2. Demonstrate the ability to work independently	1. Importance ofthe ability to work independently 2. Describe the types of self-awareness 3. Describe the meaning of self-motivation and self- regulation	1. Demonstration on working independently goals 2. Planning of an activity 3. Executing tasks in a specific period, with no help or directives 4. Demonstration on thequalities required for Working independently

Unit 3: Information and Communication Technology Skills– II

Learning Outcome	Theory	Practical
1. Distinguish between different operating systems	1. Classes of operating systems 2. Menu, icons andtask bar on the desktop 3. File concept, file operations, file organization, directory structures,and file- system structures 4. Creating and managing files and folders	1. Identification of task bar, icons, menu, etc. 2. Demonstration and practicing of creating, renaming and deleting files and folders, saving files in folders and sub- folders, restoring files and folders from recycle bin
2. Apply basic skills for care and maintenance of computer	1. Importance and need of care andmaintenance of computer ➢ Cleaning computer components ➢ Preparing maintenance schedule ➢ Protecting computer againstviruses ➢ Scanning and cleaning virusesand removing SPAM files, temporary ➢ files and folders	1. Demonstration of the procedures to be followed for cleaning, care and maintenanceof hardware and software

Unit 4: Entrepreneurial Skills – II

Learning Outcome	Theory	Practical
1. List the characteristics of successful entrepreneur	1. Entrepreneurshipand society 2. Qualities and functions of an entrepreneur 3. Role and importance of an entrepreneur 4. Myth about entrepreneurship 5. Entrepreneurship as a career option	1. Writing a note on entrepreneurship as career option 2. Collecting success stories of first generation and localentrepreneurs 3. Listing the entrepreneurial qualities analysis ofstrength and weaknesses 4. Group discussion ofself- qualities that students feel are needed to become successful entrepreneur 5. Collect information and related data for a business 6. Make a plan in teamfor setting up a business

Unit 5: Green Skills – II

Learning Outcome	Theory	Practical
1. Demonstrate the knowledge of importance, problems and solutions related to sustainable development	1. Definition of sustainable development 2. Importance of sustainable development 3. Problems relatedto sustainable development	1. Identify the problem related to sustainabledevelopment in the community 2. Group discussion on the importance of respecting and conserving indigenousknowledge and cultural heritage 3. Discussion on the responsibilities and benefits of environmental citizenship, including the conservation andprotection of environmental values 4. Preparing models on rain water harvesting, drip / sprinkler irrigation, vermin compost, solar energy,solar cooker etc.