

# CBSE | DEPARTMENT OF SKILL EDUCATION

## CURRICULUM FOR SESSION 2024-2025

### INFORMATION TECHNOLOGY (SUB. CODE – 402)

#### JOB ROLE: DOMESTIC DATA ENTRY OPERATOR

#### CLASS X

#### COURSE TITLE: DOMESTIC DATA ENTRY OPERATOR

Domestic Data Entry Operator in the IT-ITeS Industry is also known as Data Entry Operator. Individuals are responsible to provide daily work reports and work on a daily hour basis. The individual is responsible for electronic entry of data from the client side to the office site or vice-versa. Individual tasks vary depending on the size and structure of the organization. This job requires the individual to have a thorough knowledge of various technology trends and processes as well as have updated knowledge about database management systems and IT initiatives. The individual should have fast and accurate typing/data encoding. This job involves working in a personal computer, and appropriate software to enter accurate data regarding different issues like retrieving data from a computer or to a computer

#### COURSE OBJECTIVES:

In this course, students will be introduced to advanced concepts of digital documentation, spreadsheets, database management, and workplace safety, enhancing both technical and soft skills. The course aims to develop effective communication skills, including active listening, speaking, and presentation abilities, while fostering self-management through time management, goal setting, and stress management techniques. Students will gain proficiency in Information and Communication Technology (ICT), ensuring safe and ethical use of digital tools. The course also focuses on nurturing an entrepreneurial mindset, critical thinking, and innovation skills, along with a strong understanding of sustainable practices and environmental conservation. Learners will master advanced document creation, data analysis, and automation techniques using LibreOffice tools and develop competency in designing and managing databases. Emphasis is placed on maintaining a safe and secure work environment by understanding health, safety, and emergency protocols, thus preparing students for professional and personal growth in diverse environments.

#### LEARNING OUTCOMES:

In this course, the students will be introduced to the advanced concepts of digital documentation, digital spreadsheet, database management and internet security. The objectives of this course are to :

- Develop effective verbal and non-verbal communication skills, active listening, speaking, and presentation skills. Understand the importance of feedback and improve interpersonal communication.
- Enhance self-awareness, self-regulation, and self-motivation. Learn time management, goal setting, and stress management techniques. Cultivate personal and professional growth mindsets.
- Understand the basics of Information and Communication Technology (ICT). Gain

proficiency in using digital tools and platforms for communication and productivity. Learn safe, responsible, and ethical use of ICT resources.

- Develop an entrepreneurial mindset and understanding of business fundamentals. Learn problem-solving, critical thinking, and innovation techniques. Understand financial literacy and risk management in business.
- Understand the importance of sustainable practices and environmental conservation. Learn about the green economy and green jobs. Promote sustainable development and eco-friendly initiatives.
- Master advanced document creation, formatting, and management skills. Learn to use templates, styles, tables, and images effectively. Understand document collaboration and review features.
- Learn advanced data analysis using Scenarios and Goal Seek, automate tasks with macros, and manage linked data across spreadsheets. Gain skills in securely sharing and reviewing spreadsheets for effective collaboration and feedback.
- Learn to design, create, and manage databases. Understand data querying, reporting, and relational database concepts. Develop skills in creating forms, reports, and managing data integrity.
- Understand workplace safety, health, and security protocols. Learn hazard identification, risk assessment, and emergency response planning. Promote a culture of health, safety, and well-being at the workplace.

These objectives are designed to provide comprehensive skills that enhance employability, personal development, and workplace readiness.

### **SALIENT FEATURES:**

This course equips students with essential skills for a Data Entry Operator role by focusing on advanced digital documentation, spreadsheet management, and database handling using LibreOffice tools. It enhances accuracy, speed, and data management capabilities while improving communication and ICT skills for efficient workplace interaction. The course promotes responsible digital practices, problem-solving, and critical thinking, ensuring readiness for data-centric tasks. Additionally, it emphasizes workplace safety, teaching health, safety, and emergency management protocols, essential for maintaining a secure and productive work environment.

### **SCHEME OF UNITS**

**Total Marks: 100 (Theory-50+Practical-50)**

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class X opting for skill subject along with other subjects.

The unit-wise distribution of hours and marks for class X is as follows:

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## CURRICULUM FOR SESSION 2024-2025

### INFORMATION TECHNOLOGY (SUB. CODE – 402)

CLASS – X (SESSION 2024-2025)

	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical	
<b>PART A</b>	<b>Employability Skills</b>				
	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	
	<b>Total</b>	<b>50</b>		<b>10</b>	
<b>PART B</b>	<b>SUBJECT SPECIFIC SKILLS</b>		<b>Theory</b>	<b>Practical</b>	<b>Marks</b>
	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
		<b>Total</b>	<b>60</b>	<b>90</b>	
<b>PART C</b>	<b>PRACTICAL WORK</b>				
	<b>Practical Examination</b>				
	<ul style="list-style-type: none"> <li>• Digital Documentation (Advanced) using LibreOffice Writer</li> </ul>	5 Marks		20	
	<ul style="list-style-type: none"> <li>• Electronic Spreadsheet (Advanced) using LibreOffice Calc</li> </ul>	5 Marks			
	<ul style="list-style-type: none"> <li>• Database Management System using LibreOffice Base</li> </ul>	10 Marks			
	<ul style="list-style-type: none"> <li>• Viva Voce</li> </ul>	10 Marks		10	
	<b>Total</b>			<b>30</b>	
<b>PART D</b>	<b>PROJECT WORK/FIELD VISIT:</b> 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	
	<b>PORTFOLIO/ PRACTICAL FILE:</b> (Portfolio should contain printouts of the practical done using Writer, Calc and Base with minimum 5 problems of each)			10	
		<b>Total</b>		<b>20</b>	
	<b>GRAND TOTAL</b>	<b>200</b>		<b>100</b>	

## 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
	<b>TOTAL</b>	<b>50</b>

**Note:** The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

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

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

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

## Unit 2: Electronic Spreadsheet (Advanced) using LibreOffice Calc

SUB UNIT	LEARNING OUTCOMES	THEORY	PRACTICAL
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"> <li>• Consolidating Data</li> <li>• Groups and Subtotals</li> <li>• What-if Scenarios</li> <li>• What-if Analysis Tool</li> <li>• Goal Seek</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Use Consolidating Data:</b> Aggregate data from multiple sources into a single summary.</li> <li>• <b>Create Subtotals:</b> Apply subtotals to data groups to summarize and analyze information.</li> <li>• <b>Use “What-If” Scenarios:</b> Create and analyze different scenarios to forecast outcomes based on varying inputs.</li> <li>• <b>Use “What-If” Tools:</b> Use tools like Scenario Manager for detailed what-if analyses.</li> <li>• <b>Use Goal Seek and Solver:</b> Use Goal Seek to find specific input values needed to achieve a</li> </ul>

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

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



## Unit 3: Database Management System using LibreOffice Base

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

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

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

#### Unit 4: Maintain Healthy, Safe and Secure Working Environment

SUB UNIT	LEARNING OUTCOMES	THEORY	PRACTICAL
<b>Chapter 13. Health, Safety and Security at Workplace</b>	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"> <li>• Introduction to Health, Safety, and Security At Workplace</li> <li>• Policies and Procedures for Healthy, Safety and Security</li> <li>• Reasons for Health, Safety, and Security Programs or Policies in the Workplace</li> <li>• Workplace Safety Hazards</li> <li>• Physical Hazards</li> <li>• Falling Off Heights, Slipping and Tripping</li> <li>• Electrical Hazards</li> <li>• Fire Hazards</li> <li>• Health Hazards</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Practice Basic Safety Rules:</b> Implement fire safety measures, prevent falls and slips, ensure electrical safety, and apply first aid procedures to protect workers and prevent accidents.</li> </ul>

SUB UNIT	LEARNING OUTCOMES	THEORY	PRACTICAL
		<ul style="list-style-type: none"> <li>• Potential Sources of Hazards in an Organisation</li> <li>• Hazards using Computers</li> <li>• Handling Office Equipment</li> <li>• Handling Objects</li> <li>• Stress at Work</li> <li>• Working Environment</li> <li>• Hazard Control</li> <li>• Safety Guidelines Checklist</li> </ul>	
Chapter 14. Workplace Quality Measures	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.	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Air and Water Quality Monitoring Process</li> <li>• Guidelines for Clean Air and Clean Water</li> <li>• Importance of Cleanliness at Workplace</li> <li>• Office Ergonomics</li> <li>• Computer Health and Safety Tips</li> <li>• Musculoskeletal Problems: Occupational Overuse Syndrome, Strain in Legs and Feet, Eye Strain,</li> <li>• To reduce the risks of visual problems: Headaches, Obesity, Stress Disorders, Injuries from Laptop Use, Sleeping Problems</li> <li>• Health and Safety Requirements for Computer Workplace</li> <li>• Cautions while Working on the Computer</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Illustrate Handling Accidents at Workplace:</b> Demonstrate the steps to manage and respond to accidents in the workplace.</li> <li>• <b>Demonstrate Following Evacuation Plan:</b> Show how to effectively follow the evacuation plan and procedures during an emergency.</li> </ul>
Chapter 15. Prevent Accidents and Emergencies	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.	<ul style="list-style-type: none"> <li>• Accident and Emergencies: <ul style="list-style-type: none"> <li>➤ Notice and Correctly Identify Accidents and Emergencies</li> <li>➤ Get help Promptly and in the Most Suitable Way</li> <li>➤ Follow Company Policies and Procedures for Preventing Further Injury While Waiting for Help to Arrive</li> <li>➤ Act within the Limits of your Responsibility and Authority when Accidents and Emergencies Arise,</li> <li>➤ Promptly Follow Instructions given by Senior Staff and the Emergency Services</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify Hazards and Sources of Hazards:</b> Recognize potential hazards and their sources in the workplace.</li> <li>• <b>Identify Problems at Workplace:</b> Assess workplace issues that could lead to accidents.</li> <li>• <b>Practice General Evacuation Procedures:</b> Execute evacuation</li> </ul>

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

**ORGANISATION OF FIELD VISITS:**

In a year, at least 3 field visits/educational tours should be organised for the students to expose them to the activities in the workplace.

Visit a data entry centre and observe the following: Location, Site, Office building, Computer Systems, Tools and Equipment, Printer, Scanner. During the visit, students should obtain the following information from the owner or the supervisor of the Data Centre:

1. Data Entry Centre.
2. Computer Infrastructure.
3. Sitting Posture of data entry operators.
4. Assistive technology.
5. Man power engaged.
6. Total expenditure of Data Entry Centre.
7. Total annual income.
8. Profit/Loss (Annual).
9. Any other information.

## LIST OF EQUIPMENT/ MATERIALS:

The list given below is suggestive and an exhaustive list should be compiled from the feedback given by various by the teachers teaching the subject. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

S. No.	ITEM NAME, DESCRIPTION & SPECIFICATION	QUANTITY
<b>A</b>	<b>HARDWARE</b>	
1.	Computer with latest configuration or minimum Pentium Processor with minimum 2GB RAM, 512 GB HDD, 17" LED Monitor, NIC Card 3 button Mouse, 105 keys key board and built-in speakers and mic.	15
2.	Laser Printer - Black	01
3.	Inkjet Printers (Colour and Black & White)	01
4.	Scanner	01
5.	Online UPS 5 KVA	01
6.	16 Port Switches	01
7.	Air Conditioner 1.5 tonne	02
8.	Telephone line (For Internet)	01
9.	Fire extinguisher	01
<b>B</b>	<b>SOFTWARE</b>	
1.	Operating System Linux and Windows	
2.	Anti-Virus Latest version	
3.	Productivity Suite, Example – Open Office, etc.	
<b>C</b>	<b>FURNITURE</b>	
1.	Class room chairs and desks	25
2.	Computer Tables	15
3.	Straight back revolving & adjustable chairs (Computer Chairs)	15
4.	Printer Tables	02
5.	Trainers Table	01
6.	Trainers Chair	01
7.	Steel cupboards drawer type	02
8.	Cabinet with drawer	01
9.	Steel Almira - big size	01
10.	Steel Almira- small size	01

## **TEACHER'S/ TRAINER'S QUALIFICATIONS:**

Qualification and other requirements for appointment of teachers/trainers for teaching this subject, on contractual basis should be decided by the State/ UT. The suggestive qualifications and minimum competencies for the teacher should be as follows:

<b>Qualification</b>	<b>Minimum Competencies</b>	<b>Age Limit</b>
Diploma in Computer Science/ Information Technology <b>OR</b> Bachelor Degree in Computer Application/ Science/ Information Technology (BCA, B. Sc. Computer Science/ Information Technology) <b>OR</b> Graduate with PGDCA OR DOEACC A Level Certificate. The suggested qualification is the minimum criteria. However higher qualifications will also be acceptable.	<ul style="list-style-type: none"><li>• The candidate should have a minimum of 1 year of work experience in the same job role.</li><li>• S/He should be able to communicate in English and local language.</li><li>• S/He should have knowledge of equipment, tools, material, Safety, Health &amp; Hygiene.</li></ul>	<ul style="list-style-type: none"><li>• 18-37 years (as on Jan. 01 (year))</li><li>• Age relaxation to be provided as per Govt. rules</li></ul>

Teachers/Trainers form the backbone of Skill (Vocational) Education being imparted as an integral part of Rashtriya Madhyamik Shiksha *Abhiyan* (RMSA). They are directly involved in teaching of Skill (vocational) subjects and also serve as a link between the industry and the schools for arranging industry visits, On-the-Job Training (OJT) and placement.

These guidelines have been prepared with an aim to help and guide the States in engaging quality Teachers/Trainers in the schools. Various parameters that need to be looked into while engaging the Vocational Teachers/Trainers are mode and procedure of selection of Teachers/Trainers, Educational Qualifications, Industry Experience and Certification/ Accreditation.

The State may engage Teachers/Trainers in schools approved under the component of scheme of Vocationalisation of Secondary and Higher Secondary Education under RMSA in following ways:

- Directly as per the prescribed qualifications and industry experience suggested by the PSS Central Institute of Vocational Education (PSSCIVE), NCERT or the respective Sector Skill Council (SSC).

**OR**

- Through accredited Vocational Training Providers accredited under the National Quality Assurance Framework (NQAF\*) approved by the National Skill Qualification Committee on 21.07.2016. If the State is engaging Vocational Teachers/Trainers through the Vocational Training Provider (VTP), it should ensure that VTP should have been accredited at NQAF Level 2 or higher.

\* *The National Quality Assurance Framework (NQAF) provides the benchmarks or quality criteria which the different organizations involved in education and training must meet in order to be accredited by competent bodies to provide government- funded education and training/skills activities. This is applicable to all organizations offering NSQF-compliant qualifications.*

The educational qualifications required for being a Teacher/Trainer for a particular job role are clearly mentioned in the curriculum for the particular NSQF compliant job role. The State should ensure that teachers/ trainers deployed in the schools have relevant technical competencies for the NSQF qualification being delivered. Teachers/Trainers preferably should be certified by the concerned Sector Skill Council for the particular Qualification Pack/Job role which S/he will be teaching. Copies of relevant certificates and/or record of experience of the teacher/trainer in the industry should be kept as record.

To ensure the quality of the Teachers/Trainers, the State should ensure that a standardized procedure for selection of (Vocational) Teachers/Trainers is followed. The selection procedure should consist of the following:

- (i) Written test for the technical/domain specific knowledge related to the sector;
- (ii) Interview for assessing the knowledge, interests and aptitude of trainer through a panel of experts from the field and state representatives; and
- (iii) Practical test/mock test in classroom/workshop/laboratory.

In case of appointment through VTPs, the selection may be done based on the above procedure by a committee having representatives of both the State Government and the VTP.

The State should ensure that the Teachers/ Trainers who are recruited should undergo induction training of 20 days for understanding the scheme, NSQF framework and Vocational Pedagogy before being deployed in the schools.

The State should ensure that the existing trainers undergo in-service training of 5 days every year to make them aware of the relevant and new techniques/approaches in their sector and understand the latest trends and policy reforms in vocational education.

The Head Master/Principal of the school where the scheme is being implemented should facilitate and ensure that the (Vocational) Teachers/Trainers:

- Prepare session plans and deliver sessions which have a clear and relevant purpose and which engage the students;
- Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- Make effective use of learning aids and ICT tools during the classroom sessions;
- Engage students in learning activities, which include a mix of different methodologies, such as project based work, team work, practical and simulation based learning experiences;
- Work with the institution's management to organise skill demonstrations, site visits, on job trainings, and presentations for students in cooperation with industry, enterprises and other workplaces;
- Identify the weaknesses of students and assist them in up-gradation of competency;
- Cater to different learning styles and level of ability of students;
- Assess the learning needs and abilities, when working with students with different abilities
- Identify any additional support the student may need and help to make special arrangements for that support;
- Provide placement assistance

Assessment and evaluation of (Vocational) Teachers/Trainers is very critical for making them aware of their performance and for suggesting corrective actions. The States/UTs should ensure that the performance of the (Vocational) Teachers/Trainers is appraised annually. Performance



based appraisal in relation to certain pre-established criteria and objectives should be done periodically to ensure the quality of the (Vocational) Teachers/Trainers.

Following parameters may be considered during the appraisal process:

- Participation in guidance and counseling activities conducted at Institutional, District and State level;
- Adoption of innovative teaching and training methods;
- Improvement in result of vocational students of Class X or Class XII;
- Continuous up-gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
- Membership of professional society at District, State, Regional, National and International level;
- Development of teaching-learning materials in the subject area;
- Efforts made in developing linkages with the Industry/Establishments;
- Efforts made towards involving the local community in Vocational Education
- Publication of papers in National and International Journals;
- Organisation of activities for promotion of vocational subjects;
- Involvement in placement of students/student support services.

### **CAREER OPPORTUNITIES:**

The job of a data entry operator/ analyst is to work for a wide variety of public and private organisations. A data entry operator/analyst is responsible to input data in a quick and efficient manner, create data storage and should possess knowledge about the methods for recovering useful data when needed, organizing and analyzing data in a clear and effective way, navigating computer and database systems proficiently, editing and preparing reports based on the information they have put into the system. They also help the organisations to keep up with recording and analyzing the abundance of information received on a daily basis.

**Some of the top sectors that require a data entry operator/analyst are listed below:**

- Banks and Public Sector
- Marketing Companies
- Accounting Companies
- Human Resources
- Corporate Businesses
- MNCs
- Study Centers
- Schools and Universities
- Hospitals or Healthcare Service Providers
- Insurance Firms
- Small-scale Businesses

### **VERTICAL MOBILITY**

- Students can pursue Polytechnic/Diploma/Certificate courses in IT fields.
- Can work as DEO
- Data Entry/Analysis work from home for different companies

# CBSE | DEPARTMENT OF SKILL EDUCATION

## CURRICULUM FOR SESSION 2024-2025

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### INFORMATION TECHNOLOGY (SUB. CODE – 402)

#### JOB ROLE: DOMESTIC DATA ENTRY OPERATOR

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#### CLASS – IX

#### COURSE OVERVIEW:

A Data Entry Operator/Analyst is a person who is responsible for entering data into different applications and computer databases, manage and maintain effective record keeping. In addition, S/he is responsible for organizing files, collecting and managing data to be entered into the computer. S/he is also responsible for security of data and safeguard of the computer network.

With every office and organization seeking to become computerized, the demand for data entry operators/analysts is on a rise. Data entry operators/analysts usually work in an indoor, office setting using a computer and other electronic machines. To be in the profession of data entry/analysis, one has to have computer literacy, high typing speed, organization skills, concentration skills, communication skills and an ability to sit for long periods of time entering and computing data.

#### OBJECTIVES OF THE COURSE:

In this course, the students will be introduced to the fundamental concepts of digital documentation, digital spreadsheet, digital presentation, database management and internet security.

The following are the main objectives of this course:

- To familiarize the students with the world of IT and IT enabled services.
- To provide an in-depth training in use of data entry, internet and internet tools.
- To develop practical knowledge of digital documentation, spreadsheets and presentation.
- To enable the students to understand database management system and have updated knowledge about digital record keeping.

- To make the students capable of getting employment in Private Sector, Public Sector, Ministries, Courts, House of Parliament and State Legislative Assemblies.
- To develop the following skills:
  - Data Entry and Keyboarding skills
  - The concept of Digital Documentation
  - The concept of Digital Presentation
  - The concept of Electronic Spreadsheet
  - The concept of Databases
  - Internet Technologies

### **SALIENT FEATURES**

To be a data entry operator/analyst, one requires a lot of hard work and practical hands-on experience. One should have an intensive knowledge of Office applications, computer operations, and knowledge of clerical, administrative techniques and data analysis. Along with this, as a data entry operator/analyst, you will be expected to have fast typing speed, accuracy, and efficiency to perform tasks.

As a data entry operator/analyst, one should improve their computer skills, numerical and literacy skills. These skills can help one expand into a new career path in the future.

### **SCHEME OF UNITS**

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class IX opting for skill subject along with other education subjects. The unit-wise distribution of hours and marks for class IX is as follows:

**INFORMATION TECHNOLOGY (SUBJECT CODE - 402)****CLASS – IX (Session 2024-2025)****Total Marks: 100 (Theory-50 + Practical-50)**

	<b>UNITS</b>	<b>NO. OF HOURS for Theory and Practical</b>		<b>MAX. MARKS for Theory and Practical</b>
<b>Part A</b>	<b>Employability Skills</b>			
	Unit 1 : Communication Skills-I	10		2
	Unit 2 : Self-Management Skills-I	10		3
	Unit 3 : ICT Skills-I	10		1
	Unit 4 : Entrepreneurial Skills-I	15		3
	Unit 5 : Green Skills-I	05		1
	<b>Total</b>		<b>50</b>	
<b>Part B</b>	<b>Subject Specific Skills</b>	<b>Theory</b>	<b>Practical</b>	<b>Marks</b>
	Unit 1: Introduction to IT- ITeS industry	2	4	4
	Unit 2: Data Entry & Keyboarding Skills	4	10	6
	Unit 3: Digital Documentation	10	26	10
	Unit 4: Electronic Spreadsheet	18	35	10
	Unit 5: Digital Presentation	10	31	10
	<b>Total</b>	<b>44</b>	<b>106</b>	
<b>Part C</b>	<b>Practical Work</b>			
	Practical Examination			15
	Written Test			10
	Viva Voce			10
	<b>Total</b>			
<b>Part D</b>	<b>Project Work/ Field Visit</b>			
	Practical File/ Student Portfolio			10
	Viva Voce			05
	<b>Total</b>			
	<b>GRAND TOTAL</b>		<b>200</b>	<b>100</b>

## DETAILED CURRICULUM/TOPICS:

### Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-I	10
2.	Unit 2: Self-Management Skills-I	10
3.	Unit 3: Basic Information and Communication Technology Skills-I	10
4.	Unit 4: Entrepreneurial Skills-I	15
5.	Unit 5: Green Skills-I	05
	<b>TOTAL</b>	<b>50</b>

**NOTE:** Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

### Part-B – SUBJECT SPECIFIC SKILLS

- Unit 1: Introduction to IT- ITeS industry
- Unit 2: Data Entry & Keyboarding Skills
- Unit 3: Digital Documentation
- Unit 4: Electronic Spreadsheet
- Unit 5: Digital Presentation

### UNIT 1: INTRODUCTION TO IT–ITeS INDUSTRY

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Appreciate the applications of IT	<ul style="list-style-type: none"><li>• Introduction to IT and ITeS, BPO services,</li><li>• BPM industry in India,</li><li>• Structure of the IT-BPM industry,</li><li>• Applications of IT in home computing, everyday life, library, workplace, education, entertainment, communication, business, science and engineering, banking, insurance, marketing, health care, IT in the government and public service</li></ul>	<ul style="list-style-type: none"><li>- Identify and list the various IT enabled services, Observe the application of IT in various areas.</li></ul>

## UNIT 2: DATA ENTRY AND KEYBOARDING SKILLS

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Use keyboard and mouse for data entry	<ul style="list-style-type: none"> <li>• Keyboarding Skills,</li> <li>• Types of keys on keyboard, Numeric keypad,</li> <li>• Home keys, Guide keys,</li> <li>• Typing and deleting text,</li> <li>• Typing ergonomics,</li> <li>• Positioning of fingers on the keyboard, Allocation of keys to fingers on four different rows,</li> <li>• Pointing device – Mouse, Mouse operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the keys and its use on the keyboard,</li> <li>• Demonstrate to use various keys on the keyboard,</li> <li>• Demonstrate to type the text, numbers, special character using appropriate keys on the keyboard,</li> <li>• Practice the correct typing ergonomics,</li> <li>• Practice to place fingers on correct key in four different row of keyboard,</li> <li>• Practice various mouse operations.</li> </ul>
2.	Use typing software	<ul style="list-style-type: none"> <li>• Introduction to Rapid Typing Tutor,</li> <li>• Touch typing technique,</li> <li>• User interface of Typing Tutor,</li> <li>• Typing text and interpret results,</li> <li>• Working with lesson editor,</li> <li>• Calculating typing speed,</li> <li>• Typing rhythm.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the user interface of typing tutor,</li> <li>• Practice to type text in typing tutor software and interpret the results,</li> <li>• Practice to work in lesson editor,</li> <li>• Calculate the typing speed</li> <li>• Practice to improve typing</li> <li>• Using typing tutor software.</li> </ul>

## UNIT 3: DIGITAL DOCUMENTATION

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Create a document using a word processor	<ul style="list-style-type: none"> <li>• Introduction to word processing,</li> <li>• Word processing applications,</li> <li>• Introduction to Word Processing tool</li> <li>• Creating a document, Parts of a Word Processor Window,</li> </ul>	<ul style="list-style-type: none"> <li>• List the available word processing applications.</li> <li>• Introduce with the parts of the main window.</li> <li>• Change document views.</li> <li>• Start a new document.</li> <li>• Open an existing document.</li> <li>• Save a document.</li> <li>• Close a document.</li> </ul>
2.	Apply Editing features	<ul style="list-style-type: none"> <li>• Text editing – Undo and Redo,</li> <li>• Moving and copying text,</li> <li>• Copy and Paste,</li> <li>• Selecting text,</li> <li>• Selection criteria,</li> </ul>	<ul style="list-style-type: none"> <li>• Editing of text in a document</li> <li>• Demonstrate to use undo and redo option,</li> <li>• Use the keyboard and mouse options to select, cut, copy, paste, and move text.</li> </ul>

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
		<ul style="list-style-type: none"> <li>• Selecting non-consecutive text items,</li> <li>• Selecting a vertical block of text,</li> <li>• Find and replace option,</li> <li>• Jumping to the page number,</li> <li>• Non-printing characters,</li> <li>• Checking spelling and grammar,</li> <li>• Using Synonyms and Thesaurus.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to select nonconsecutive text items, vertical block of text,</li> <li>• Search and replace text in a document.</li> <li>• Jump to the given page number in a document,</li> <li>• Insert non-printing characters in a document,</li> <li>• Apply Spelling and grammar option of document.</li> <li>• Demonstrate to use Synonyms and Thesaurus.</li> </ul>
3.	Apply formatting features	<ul style="list-style-type: none"> <li>• Page style dialog</li> <li>• Formatting text – Removing manual formatting, Common text formatting, Changing text case, Superscript and Subscript</li> <li>• Formatting paragraph – Indenting paragraphs, Aligning paragraphs, Font colour, highlighting, and background colour, Using bullets and numbering, Assigning colour, border and background to paragraph.</li> <li>• Page formatting – setting up basic page layout using styles, Inserting page break, Creating header/footer and page numbers,</li> <li>• Defining borders and backgrounds, Inserting images shapes, special characters in a document, Dividing page into columns, Formatting the shape or image.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply various text formatting options for the text,</li> <li>• Demonstrate to format paragraphs – indent/align paragraphs, assign font colour, highlighting, and background colour,</li> <li>• Assign number or bullets to the lists items</li> <li>• Demonstrate to assign colour, border and background to paragraph</li> <li>• Demonstrate the page formatting – set up basic page layout using styles,</li> <li>• Insert page break, Create header/footer and page numbers</li> <li>• Define borders and backgrounds</li> <li>• Insert images, shapes, special characters in a document</li> <li>• Divide page into columns,</li> <li>• Format the shape or image.</li> </ul>
4.	Create and work with tables	<ul style="list-style-type: none"> <li>• Creating table in Word Processor</li> <li>• Inserting row and column in a table</li> <li>• Deleting rows and columns</li> <li>• Splitting and merging tables</li> <li>• Deleting a table</li> <li>• Copying a table</li> <li>• Moving a table.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate and do the following in Word Processor:</li> <li>• Create table,</li> <li>• Insert and delete rows and column in a table,</li> <li>• Split and merge tables,</li> <li>• Delete a table,</li> <li>• Copy or move from one location to another location of document.</li> </ul>

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
5.	Use Print Options	<ul style="list-style-type: none"> <li>• Printing options in Word Processor.</li> <li>• Print preview,</li> <li>• Controlling printing,</li> <li>• Printing all pages, single and multiple pages.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to print the document, selected pages in the document</li> <li>• Print the document with various options,</li> <li>• Preview pages before printing.</li> </ul>
6.	Understand and apply mail merge	<ul style="list-style-type: none"> <li>• Introduction to mail merge</li> <li>• Concept of data source for mail merge.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to print the letters using mail merge,</li> <li>• Do the following to achieve</li> <li>• Create a main document,</li> <li>• Create the data source,</li> <li>• Enter data in the fields,</li> <li>• Merge the data source with main document,</li> <li>• Edit individual document,</li> <li>• Print the merged letter,</li> <li>• Save the merged letter.</li> </ul>

#### UNIT 4: ELECTRONIC SPREADSHEET

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Create a Spreadsheet	<ul style="list-style-type: none"> <li>• Introduction to spreadsheet application</li> <li>• Starting a spreadsheet</li> <li>• Parts of a spreadsheet</li> <li>• Worksheet – Rows and Columns, Cell and Cell Address,</li> <li>• Range of cells – column range, row range, row and column range.</li> </ul>	<ul style="list-style-type: none"> <li>• Start the spreadsheet,</li> <li>• Identify the parts of Calc,</li> <li>• Identify the rows number, column number, cell address,</li> <li>• Define the range of cell,</li> <li>• Identify row range, column range, row &amp; column range</li> </ul>
2.	Apply formula and functions in spreadsheet	<ul style="list-style-type: none"> <li>• Different types of data,</li> <li>• Entering data – Label, Values, Formula</li> <li>• Formula, how to enter formula,</li> <li>• Mathematical operators used in formulae,</li> <li>• Simple calculations using values and operators,</li> <li>• Formulae with cell addresses and operators,</li> <li>• Commonly used basic functions in a spreadsheet – SUM, AVERAGE, MAX, MIN, Count</li> <li>• Use of functions to do calculations.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to enter the text, numeric data in a cell,</li> <li>• Identify the label, values and formula in the cell,</li> <li>• Demonstrate to enter formula in a cell,</li> <li>• Construct the formula using mathematical operators,</li> <li>• Identify formulae with cell addresses and operators,</li> <li>• Identify the correct syntax of formula,</li> <li>• Use the basic functions to perform calculations on data.</li> </ul>



S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
3.	Format data in the spreadsheet	<ul style="list-style-type: none"> <li>• Formatting tool,</li> <li>• Use of dialog boxes to format values,</li> <li>• Formatting a range of cells with decimal places,</li> <li>• Formatting a range of cells to be seen as labels,</li> <li>• Formatting of a cell range as scientific,</li> <li>• Formatting a range of cells to display times,</li> <li>• Formatting alignment of a cell range,</li> <li>• Speeding up data entry using the fill handle,</li> <li>• Uses of fill handle to copy formulae.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the formatting tool,</li> <li>• Demonstrate to use of dialog boxes to format values,</li> <li>• Demonstrate to format range of cells with decimal places,</li> <li>• Demonstrate to format a range of cells to labels,</li> <li>• Demonstrate to format of a cell range as scientific,</li> <li>• Demonstrate to format a range of cells to display time,</li> <li>• Demonstrate to align cell data range,</li> <li>• Demonstrate to create number series using fill handle,</li> <li>• Copy formula by dragging the formula using fill handle.</li> </ul>
4.	Understand and apply Referencing	<ul style="list-style-type: none"> <li>• Concept of referencing,</li> <li>• Relative referencing,</li> <li>• Mixed referencing,</li> <li>• Absolute referencing.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to use Relative referencing in spreadsheet,</li> <li>• Demonstrate to use Mixed referencing in spreadsheet,</li> <li>• Demonstrate to use Absolute referencing in spreadsheet.</li> </ul>
5.	Create and insert different types of charts in a spreadsheet	<ul style="list-style-type: none"> <li>• Importance of chart in spreadsheet</li> <li>• Types of chart</li> </ul>	<ul style="list-style-type: none"> <li>• Create different types of charts supported by a spreadsheet,</li> <li>• Illustrate the example of chart in a spreadsheet.</li> </ul>

### UNIT 5: DIGITAL PRESENTATION

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Understand features of an effective presentation	<ul style="list-style-type: none"> <li>• Concept of presentation,</li> <li>• Elements of presentation,</li> <li>• Characteristics of an effective presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and list the elements of presentation,</li> <li>• List the characteristics of an effective presentation.</li> </ul>
2.	Create a presentation	<ul style="list-style-type: none"> <li>• Introduction to presentation software,</li> <li>• Opening a presentation software</li> <li>• Parts of presentation window,</li> <li>• Closing a presentation</li> <li>• Creating a presentation using template,</li> <li>• Selecting slide layout,</li> <li>• Saving a presentation,</li> <li>• Running a slide show,</li> <li>• Save a presentation in PDF,</li> <li>• Closing a presentation,</li> <li>• Using Help.</li> </ul>	<ul style="list-style-type: none"> <li>• Start the presentation application</li> <li>• various components of main Impress window</li> <li>• Observe the different workspace views.</li> <li>• Create a new presentation using wizard.</li> <li>• Run the presentation,</li> <li>• Save the presentation,</li> <li>• Close the presentation,</li> <li>• Demonstrate to use Help in presentation.</li> </ul>

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
3.	Work with slides	<ul style="list-style-type: none"> <li>• Inserting a duplicate slide,</li> <li>• Inserting new slides,</li> <li>• Slide layout,</li> <li>• Copying and moving slides,</li> <li>• Deleting and renaming slides</li> <li>• Copying, moving and deleting contents of slide,</li> <li>• View a presentation,</li> <li>• Controlling the size of the view,</li> <li>• Workspace views – Normal, Outline, Notes, Slide sorter view.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to insert a new slide and duplicate slide in a presentation,</li> <li>• Change the slide layout,</li> <li>• Demonstrate to copy and move slides in the presentation,</li> <li>• Demonstrate to copy, move and delete contents of the slide,</li> <li>• Demonstrate to view a presentation in different views.</li> </ul>
4.	Format text and apply animations	<ul style="list-style-type: none"> <li>• Formatting toolbar,</li> <li>• Various formatting features,</li> <li>• Text alignment,</li> <li>• Bullets and numbering.</li> <li>• Custom Animation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and list the various options in formatting toolbar,</li> <li>• Apply the appropriate formatting option</li> <li>• Align the text in presentation,</li> <li>• Apply bullets and numbering to the list items in presentation. □ Apply Animation</li> </ul>
5.	Create and use tables	<ul style="list-style-type: none"> <li>• Inserting tables in presentation,</li> <li>• Entering and editing data in a table,</li> <li>• Selecting a cell, row, column, table,</li> <li>• Adjusting column width and row height,</li> <li>• Table borders and background</li> </ul>	<p>Demonstrate the following:</p> <ul style="list-style-type: none"> <li>• Insert table in presentation,</li> <li>• Enter and edit data in a table,</li> <li>• Select a cell, row, column, table,</li> <li>• Adjust column width and row height,</li> <li>• Assign table borders and background.</li> </ul>
6.	Insert and format image in presentation	<ul style="list-style-type: none"> <li>• Inserting an image from a file,</li> <li>• Inserting an image from the gallery,</li> <li>• Formatting images,</li> <li>• Moving images,</li> <li>• Resizing images,</li> <li>• Rotating images,</li> <li>• Formatting using the Image toolbar,</li> <li>• Drawing graphic objects – line, shapes,</li> <li>• Grouping and un-grouping objects</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate to insert an image from file, gallery in presentation,</li> <li>• Apply formatting options to image in presentation,</li> <li>• Demonstrate to move, resize and rotate images,</li> <li>• Apply formatting options of Image toolbar,</li> <li>• Drawing line, shapes using graphic objects,</li> </ul> <p>Demonstrate to group and ungroup objects.</p>
7.	Work with slide master	<ul style="list-style-type: none"> <li>• Slide masters,</li> <li>• Creating the slide masters,</li> <li>• Applying the slide masters to all slide,</li> <li>• Adding transitions.</li> </ul>	<ul style="list-style-type: none"> <li>• Create the slide masters,</li> <li>• Apply the slide masters to the presentation,</li> <li>• Add transitions to presentation.</li> </ul>

## LIST OF EQUIPMENT/ MATERIALS:

The list given below is suggestive and an exhaustive list should be compiled by the teacher(s) teaching the subject. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

S. No.	ITEM NAME, DESCRIPTION & SPECIFICATION	QUANTITY
<b>A</b>	<b>HARDWARE</b>	
1.	Computer with latest configuration or minimum Pentium Processor with minimum 2GB RAM, 512 GB HDD, 17" LED Monitor, NIC Card, 3 button Mouse, 105 keys key board and built-in speakers and mic.	15
2.	Laser Printer - Black	01
3.	Inkjet Printers (Colour & Black)	01
4.	Scanner	01
5.	Online UPS 5 KVA	01
6.	16 Port Switches	01
7.	Air Conditioner 1.5 tonne	02
8.	Telephone line (For Internet)	01
9.	Fire extinguisher	01
<b>B</b>	<b>SOFTWARE</b>	
1.	Operating System Linux and Windows	
2.	Anti-Virus Latest version	
3.	Productivity Suite, Example –Libre Office	
<b>C</b>	<b>FURNITURE</b>	
1.	Class room chairs and desks	25
2.	Computer Tables	15
3.	Straight back revolving & adjustable chairs (Computer Chairs)	15
4.	Printer Tables	02
5.	Trainers Table	01
6.	Trainers Chair	01
7.	Steel cupboards drawer type	02
8.	Cabinet with drawer	01
9.	Steel Almira - big size	01
10.	Steel Almira- small size	01

## TEACHER'S/ TRAINER'S QUALIFICATIONS:

Qualification and other requirements for appointment of teachers/trainers for teaching this subject, on contractual basis should be decided by the State/ UT. The suggestive qualifications and minimum competencies for the teacher should be as follows:

Qualification	Minimum Competencies	Age Limit
Diploma in Computer Science/ Information Technology <b>OR</b> Bachelor Degree in Computer Application/ Science/ Information Technology (BCA, B.Sc. Computer Science/ Information Technology) <b>OR</b> Graduate with PGDCA OR DOEACC A Level Certificate. The suggested qualification is the minimum criteria. However higher qualifications will also be acceptable.	<ul style="list-style-type: none"> <li>The candidate should have a minimum of 1 year of work experience in the same job role.</li> <li>S/he should be able to communicate in English and local language.</li> <li>S/he should have knowledge of equipment, tools, material, Safety, Health &amp; Hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>18-37 years (as on Jan. 01 (year))</li> <li>Age relaxation to be provided as per Govt. rules</li> </ul>

Teachers/Trainers form the backbone of Skill (Vocational) Education being imparted as an integral part of Rashtriya Madhyamik Shiksha *Abhiyan* (RMSA). They are directly involved in teaching of Skill (vocational) subjects and also serve as a link between the industry and the schools for arranging industry visits, On-the-Job Training (OJT) and placement.

These guidelines have been prepared with an aim to help and guide the States in engaging quality Teachers/Trainers in the schools. Various parameters that need to be looked into while engaging the Vocational Teachers/Trainers are mode and procedure of selection of Teachers/ Trainers, Educational Qualifications, Industry Experience, and Certification/ Accreditation.

The State may engage Teachers/Trainers in schools approved under the component of scheme of Vocationalisation of Secondary and Higher Secondary Education under RMSA in following ways:

- (i) Directly as per the prescribed qualifications and industry experience suggested by the PSS Central Institute of Vocational Education (PSSCIVE), NCERT or the respective Sector Skill Council (SSC).
- OR**
- (ii) Through accredited Vocational Training Providers accredited under the National Quality Assurance Framework (NQAF\*) approved by the National Skill Qualification Committee on 21.07.2016. If the State is engaging Vocational Teachers/Trainers through the Vocational Training Provider (VTP), it should ensure that VTP should have been accredited at NQAF Level 2 or higher.

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*\* The National Quality Assurance Framework (NQAF) provides the benchmarks or quality criteria which the different organizations involved in education and training must meet in order to be accredited by competent bodies to provide government- funded education and training/skills activities. This is applicable to all organizations offering NSQF-compliant qualifications.*

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The educational qualifications required for being a Teacher/Trainer for a particular job role are clearly mentioned in the curriculum for the particular NSQF compliant job role. The State should ensure that teachers/ trainers deployed in the schools have relevant technical competencies for the NSQF qualification being delivered. Teachers/Trainers preferably should be certified by the concerned Sector Skill Council for the particular Qualification Pack/Job role which he will be teaching. Copies of relevant certificates and/or record of experience of the teacher/trainer in the industry should be kept as record.

To ensure the quality of the Teachers/Trainers, the State should ensure that a standardized procedure for selection of (Vocational) Teachers/Trainers is followed. The selection procedure should consist of the following:

- (i) Written test for the technical/domain specific knowledge related to the sector;
- (ii) Interview for assessing the knowledge, interests and aptitude of trainer through a panel of experts from the field and state representatives; and (iii) Practical test/mock test in classroom/workshop/laboratory.

In case of appointment through VTPs, the selection may be done based on the above procedure by a committee having representatives of both the State Government and the VTP.

The State should ensure that the Teachers/ Trainers who are recruited should undergo induction training of 20 days for understanding the scheme, NSQF framework and Vocational Pedagogy before being deployed in the schools.

The State should ensure that the existing trainers undergo in-service training of 5 days every year to make them aware of the relevant and new techniques/approaches in their sector and understand the latest trends and policy reforms in vocational education.

The Head Master/Principal of the school where the scheme is being implemented should facilitate and ensure that the (Vocational) Teachers/Trainers:

- Prepare session plans and deliver sessions which have a clear and relevant purpose and which engage the students;
- Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- Make effective use of learning aids and ICT tools during the classroom sessions;
- Engage students in learning activities, which include a mix of different methodologies, such as project based work, team work, practical and simulation based learning experiences;
- Work with the institution's management to organise skill demonstrations, site visits, on job trainings, and presentations for students in cooperation with industry, enterprises and other workplaces;
- Identify the weaknesses of students and assist them in up-gradation of competency;
- Cater to different learning styles and level of ability of students;
- Assess the learning needs and abilities, when working with students with different abilities
- Identify any additional support the student may need and help to make special arrangements for that support;
- Provide placement assistance

Assessment and evaluation of (Vocational) Teachers/Trainers is very critical for making them aware of their performance and for suggesting corrective actions. The States/UTs should ensure that the performance of the (Vocational) Teachers/Trainers is appraised annually. Performance based appraisal in relation to certain pre-established criteria and objectives should be done periodically to ensure the quality of the (Vocational) Teachers/Trainers.

Following parameters may be considered during the appraisal process:

- Participation in guidance and counseling activities conducted at Institutional, District and State level;
- Adoption of innovative teaching and training methods;
- Improvement in result of vocational students of Class X or Class XII;
- Continuous up-gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
- Membership of professional society at District, State, Regional, National and International level;
- Development of teaching-learning materials in the subject area;
- Efforts made in developing linkages with the Industry/Establishments;
- Efforts made towards involving the local community in Vocational Education
- Publication of papers in National and International Journals;
- Organization of activities for promotion of vocational subjects;
- Involvement in placement of students/student support services.