

COMPUTER OPERATOR AND PROGRAMMING ASSISTANT

CLASS–XI

PAPER–I					
(Theory&Practical)					
Full Marks:50					
Part	Unit&Topic		No. of Theory Classes	No. of Practical Classes	Maximum Marks
Part-A	EmployabilitySkills				
	Unit-1	Communication Skills-III	10	3	10
	Unit-2	Self-management Skills-III	10	3	
	Unit-3	Information & CommunicationTechnology Skills-III	10	4	
Part–B	Vocational Skills				
	Unit-1	Install and setup operating system and related software in a computer	5	5	40
	Unit-2	Create, format, and edit document using word processing application software.	10	7	
	Unit-3	Create, format, edit and develop a workbook by using spreadsheet application software.	10	5	
	Unit-4	Create and customize slides for presentation.	5	3	
		Total	60	30	50
Part-C	PracticalWork				
		Practical Examination			20
		WrittenTest			15
		Viva Voce			10
		Record			05
		Total			50
		Grand Total			100

PAPER–II					
(Theory&Practical)					
FullMarks:50					
Part	Unit&Topic		No. of Theory Classes	No. of Practical Classes	Maximum Marks
Part-A	EmployabilitySkills				
	Unit-1	Entrepreneurship DevelopmentSkills -III	10	7	10

	Unit-2	GreenSkills-III	10	7	
Part-B	VocationalSkills				
	Unit-I	Overview of IT and its significance in the modern world.	08	5	40
	Unit-II	Computer languages and Number System	10	3	
	Unit-III	Introduction to INTERNET and INTRANET	10	2	
	Unit-IV	'C' Programming	12	6	
		Total	60	30	50
Part-C	PracticalWork				
		PracticalExamination			20
		WrittenTest			15
		VivaVoce			10
		Record			05
		Total			50
		Grand Total			100

PAPER-I(Theory)

PART A:EMPLOYABILITY SKILLS

Unit-I: Communication Skills-III

- ☞ Introduction to communication process, Importance of communication, Elements of communication, Perspectives in communication, Effective communication.
- ☞ Verbal communication,PublicSpeaking.
- ☞ Importanceofnon-verbalcommunication,Typesofnon-verbalcommunication,Visual communication.
- ☞ Pronunciation basics, Speaking properly, Phonetics,Types of sounds.
- ☞ Important communication styles, Assertive communication, Advantages of a ssertive communication, Practicing assertive communication.
- ☞ Steps for saying 'No', Connecting words.
- ☞ Capitalization, Punctuation, Basic parts of speech, Supporting parts of speech.
- ☞ Parts of a sentence, Types of object, Types of sentences, Paragraph.
- ☞ Greetings, Introducing self and others.
- ☞ Talking about self, Filling a form.
- ☞ Main types of questions, Forming closed and open-ended questions.
- ☞ Names of relatives, Relations.
- ☞ Concept of habits and routines.
- ☞ Asking for directions, Using landmarks.

Unit-2:Self-managementSkills- III

- ☞ Understanding self,Techniques for identifying strengths and weaknesses, Difference between Interests and abilities.
- ☞ Guidelines for dressing and grooming, Preparing a personal grooming checklist.
- ☞ Importance of personal hygiene, Three steps to personal hygiene, Essential steps of hand

washing.

- ☞ Describe the benefits of teamwork, Working in a team.
- ☞ Benefits of networking skills, Steps to build networking skills.
- ☞ Meaning of self-motivation, Types of motivation, Steps to building self-motivation.
- ☞ Meaning of goals and purpose of goal-setting, Setting SMART goals.
- ☞ Meaning and importance of time management, Steps for effective time management.

Unit–3: Information & Communication Technology Skills–III

- ☞ Introduction to ICT, Advantages of using a word processor, Work with Libre Office Writer.
- ☞ Statusbar, Menubar, Icons on the Menu bar, Multiple ways to perform a function.
- ☞ Save a word document, Close a word document, Open an existing document, Print.
- ☞ Change style and size of text, Aligntext, Cut, Copy, Paste, Find and replace.
- ☞ Use of spell_checker, Autocorrect.
- ☞ Insert bullet list, Number list, Tables, Pictures, Shapes.
- ☞ Insert header, Insert footer, Insert page number, Pagecount.
- ☞ Tracking option, Manage option, Compare documents.

PART B: VOCATIONAL SKILLS

	Trade Practical	Trade Theory
UNIT 1: Install and setup operating system and related software in a computer	Assemble a Desktop PC 1. Identify computer peripherals and internal components of a desktop computer. 2. Assemble components of desktop computer. Using Windows Operating Systems 3. Practice on Windows interface and navigating windows. 4. Practice on managing files and folders using removable drives. 5. Customize the desktop 6. Settings and manage user accounts. 7. View system properties and control panel details. 8. Work with keyboard shortcut commands. 9. Print and scan document using different commands. Computer basics and Software Installation 14. View the BIOS settings and their modifications. 15. Install Windows operating system. 16. Format hard disk and create partition. 17. Identify and rectify common hardware and software issues during OS installation. 18. Install necessary application software for Windows i.e. Office Package, PDF Reader, Media Player etc. 19. Configure Bluetooth and Wi-Fi settings. 20. Install Drivers for printer, scanner, webcam and DVD etc. 21. Burn data, video and audio files on CD/DVD using application software. DOS Command Line Interface	Introduction to computer system ● Concepts of Hardware and Software. ● Function of motherboard components and various processors. ● Various Input/ Output devices in use and their features Introduction Windows Operating System ● Introduction to operating System ● Main features of Windows OS ● Concept of various shortcut commands. Introduction to the booting process ● Introduction to various types of memories and their features. ● Basic Hardware and software issues and their solutions. ● Usage of Application software and Antivirus. Introduction to DOS Command Line Interface & Linux Operating Systems ● Introduction to basic DOS Internal and External Commands. ● Introduction to Open Source Software ● Introduction to Linux Operating System features, structure, files and processes ● Basic Linux commands.

	<p>22. Use basic DOS commands for directory listing.</p> <p>23. Manage files and folders using DOS commands.</p> <p>Install Ubuntu Linux operating system and execute basic Linux commands</p> <p>24. Installation of Ubuntu Linux operating system</p> <p>25. Install necessary application software for Linux i.e. Office Package, PDF Reader, Media Player etc.</p> <p>26. Use Basic Linux commands for directory listing, file and folder management, in Linux.</p> <p>29. View system properties and manage system setting in Linux.password etc.</p> <p>27. Use the Linux graphical user interface for file and folder management, exploring the system etc.</p> <p>28. Customize desktop settings and manage user accounts</p>	
<p>UNIT-II:Create, format, and edit document using word processing application software.</p>	<p>Using Word Processing Software</p> <p>Manage documents</p> <p>30. Navigate within documents</p> <ul style="list-style-type: none"> ● Search for text ● Link to locations within documents ● Move to specific locations and objects in documents ● Show and hide formatting symbols and hidden text <p>31. Format documents</p> <ul style="list-style-type: none"> ● Set up document pages ● Apply style sets ● Insert and modify headers and footers ● Configure page background elements <p>32. Save and share documents</p> <ul style="list-style-type: none"> ● Save documents in alternative file formats ● Modify basic document properties ● Modify print settings ● Share documents electronically <p>33. Inspect documents for issues</p> <ul style="list-style-type: none"> ● Locate and remove hidden properties and personal information ● Locate and correct accessibility issues ● Locate and correct compatibility issues <p>Format documents</p> <p>34. Insert text and paragraphs</p> <ul style="list-style-type: none"> ● Find and replace text ● Insert symbols and special characters <p>35. Format text and paragraphs</p> <ul style="list-style-type: none"> ● Apply text effects ● Apply formatting by using Format Painter ● Set line and paragraph spacing and indentation ● Apply built-in styles to text ● Clear formatting <p>36. Create and configure</p>	<p>Using Word Processing Software</p> <ul style="list-style-type: none"> ● Introduction to the various applications in MS office. ● Introduction to Word features, Office button, toolbars. ● Creating, saving and formatting and printing documents using Word. ● Working with objects, macro, mail merge, templates and other tools in Word.

	<p>document sections</p> <ul style="list-style-type: none"> ● Format text in multiple columns ● Insert page, section, and column breaks ● Change page setup options for a section <p>Manage tables and lists</p> <p>37. Create tables</p> <ul style="list-style-type: none"> ● Convert text to tables ● Convert tables to text ● Create tables by specifying rows and columns <p>38. Modify tables</p> <ul style="list-style-type: none"> ● Sort table data ● Configure cell margins and spacing ● Merge and split cells ● Resize tables, rows, and columns ● Split tables ● Configure a repeating row header <p>39. Create and modify lists</p> <ul style="list-style-type: none"> ● Format paragraphs as numbered and bulleted lists ● Change bullet characters and number formats ● Define custom bullet characters and number formats ● Increase and decrease list levels ● Restart and continue list numbering ● Set starting number values <p>Create and manage references</p> <p>40. Create and manage reference elements</p> <ul style="list-style-type: none"> ● Insert footnotes and endnotes ● Modify footnote and endnote properties ● Create and modify bibliography citation sources ● Insert citations for bibliographies <p>41. Create and manage reference tables</p> <ul style="list-style-type: none"> ● Insert tables of contents ● Customize tables of contents ● Insert bibliographies <p>Manage graphic elements</p> <p>42. Insert illustrations and text boxes</p> <ul style="list-style-type: none"> ● Insert shapes ● Insert pictures ● Insert 3D models ● Insert Smart Art graphics ● Insert screenshots and screen clippings ● Insert text boxes <p>43. Format illustrations and text boxes</p> <ul style="list-style-type: none"> ● Apply artistic effects ● Apply picture effects and picture styles ● Remove picture Backgrounds ● Format graphic elements ● Format SmartArt graphics ● Format 3D models <p>44. Add text to graphic elements</p> <ul style="list-style-type: none"> ● Add and modify text in text boxes ● Add and modify text in shapes 	
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	<ul style="list-style-type: none"> ● Add and modify SmartArt graphic content 45. Modify graphic elements <ul style="list-style-type: none"> ● Position objects ● Wrap text around objects ● Add alternative text to objects for accessibility Manage document collaboration 46. Add and manage comments <ul style="list-style-type: none"> ● Add comments ● Review and reply to comments ● Resolve comments ● Delete comments 47. Manage change tracking <ul style="list-style-type: none"> ● Track changes ● Review tracked changes ● Accept and reject tracked changes ● Lock and unlock change tracking Manage Mailings 48. Perform mail merge <ul style="list-style-type: none"> ● Create envelopes ● Create labels ● Create a new mailing list ● Perform mail merge using an existing list 	
UNIT-III: Create, format, edit and develop a workbook by using spreadsheet application software.	Spread Sheet Application Manage Worksheets and Workbooks 49. Open files in MS Excel <ul style="list-style-type: none"> ● Open MS Excel ● Create a new Excel file ● Create a new Excel file from a template ● Open an existing Excel file 50. Import data <ul style="list-style-type: none"> ● Import data from txt files ● Import data from csv files 51. Navigate within workbooks <ul style="list-style-type: none"> ● Search data ● Navigate to named cells, ranges or workbook elements ● Insert and remove hyperlinks 52. Format worksheets and workbooks <ul style="list-style-type: none"> ● Modify page setup ● Adjust row height and column width ● Customize headers and footers 53. Customize options and views <ul style="list-style-type: none"> ● Display and modify content in different views ● Freeze rows and columns ● Change window views ● Modify basic workbook properties ● Display formulas 54. Configure content for collaboration <ul style="list-style-type: none"> ● Set a print area 	Spread Sheet Application <ul style="list-style-type: none"> ● Introduction to Excel features and Data Types. ● Cell referencing and linking Sheets. ● Introduction to various functions in all categories of Excel. ● Concepts of sorting, filtering and validating data. ● Analyzing data using charts, data tables, pivot tables, goal seek and scenarios.

	<ul style="list-style-type: none"> ● Save workbooks in alternative file formats ● Configure print settings <p>Manage data cells and ranges</p> <p>55. Manipulate data</p> <ul style="list-style-type: none"> ● Paste data by using special paste options ● Fill cells by using Auto Fill ● Insert and delete multiple columns or rows ● Insert and delete cells <p>56. Format cells and ranges</p> <ul style="list-style-type: none"> ● Merge and Unmerge cells ● Modify cell alignment, orientation and indentation ● Format cells using Format Painter ● Wrap text within cells ● Apply number formats ● Apply cell formats from the Format cells dialog box ● Apply cell styles ● Clear cell formatting <p>57. Define and reference named ranges</p> <ul style="list-style-type: none"> ● Define a named range ● Name a table ● Summarize data visually Insert spark lines ● Apply built in conditional formatting ● Remove conditional formatting <p>Manage tables and table data</p> <p>58. Create and format tables</p> <ul style="list-style-type: none"> ● Create excel tables from cell ranges ● Apply table styles ● Convert tables to cell ranges <p>59. Manage tables and table data</p> <ul style="list-style-type: none"> ● Add or remove table rows and columns ● Configure table style options ● Insert and configure total rows <p>60. Filter and sort table data</p> <ul style="list-style-type: none"> ● Filter records ● Sort data by multiple columns <p>Perform operations using formulas and functions</p> <p>61. Insert references</p> <ul style="list-style-type: none"> ● Insert relative, absolute and mixed references ● Reference named ranges and named tables in formulas <p>62. Calculate and transform Data</p> <ul style="list-style-type: none"> ● Perform calculations using AVERAGE(), MIN(),MAX() and SUM() ● Count cells by using COUNT(), COUNTIF() and COUNTBLANK() ● Perform conditional operations by using the IF() function <p>63. Format and modify text</p> <ul style="list-style-type: none"> ● Format text using RIGHT(),LEFT() and MID() functions ● Format text using UPPER(), LOWER() and LEN() functions 	
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	<ul style="list-style-type: none"> ● Format text using CONCAT() and TEXTJOIN() function Manage Charts 64. Create Charts <ul style="list-style-type: none"> ● Create charts ● Create chart sheets 65. Modify charts <ul style="list-style-type: none"> ● Add data series to charts ● Switch between rows and columns in source data ● Add and modify chart elements ● Add trend lines to chart 66. Format charts <ul style="list-style-type: none"> ● Apply chart layouts ● Apply chart styles ● Add alternative text to charts for accessibility Manage Pivot Tables 67. Create Pivot Tables <ul style="list-style-type: none"> ● Create Pivot tables from cell ranges ● Manipulate fields (columns) to get desired analysis ● Use Filters for pivot tables ● Represent data as Count, Sum, Average & % of row/ column ● Group data in Columns & rows for aggregate reports 	
UNIT-IV: Create and customize slides for presentation.	Power point Presentations 68. Open files in MS PowerPoint <ul style="list-style-type: none"> ● Open MS PowerPoint ● Create a new PowerPoint file ● Create a new PowerPoint file from a template ● Open an existing PowerPoint file 69. Format PowerPoint Presentations <ul style="list-style-type: none"> ● Add slides ● Add titles and text ● Select slide layouts ● Add PowerPoint templates ● Duplicate slides 70. Modify slide masters, handout masters, and note masters <ul style="list-style-type: none"> ● Change the slide master theme or background ● Modify slide master content ● Modify slide layouts 71. Change presentation options and views <ul style="list-style-type: none"> ● Change slide size ● Display presentations in different views 72. Save and share PowerPoint Presentations <ul style="list-style-type: none"> ● Save presentations in alternative file formats ● Configure different Print settings ● Share presentations electronically 73. Configure and present slide Shows <ul style="list-style-type: none"> ● Hide unwanted slides while presenting ● Configure slide show options ● Present slide shows by using Presenter View 74. Prepare presentations for collaboration <ul style="list-style-type: none"> ● Protect presentations by using passwords 	Power point Presentations <ul style="list-style-type: none"> ● Image editing, Presentations ● Introduction to Open Office. ● Introduction to the properties and editing of images. ● Introduction to different formats of images and their uses. ● Introduction to Power Point and its advantages. ● Creating Slide Shows. Fine tuning the presentation and good presentation technique

	<ul style="list-style-type: none"> ● Export presentations to other formats <p>Format presentations</p> <p>75. Insert text and paragraphs</p> <ul style="list-style-type: none"> ● Find and replace text ● Insert symbols and special characters <p>76. Format text and paragraphs</p> <ul style="list-style-type: none"> ● Apply text effects ● Apply formatting by using Format Painter ● Set line and paragraph spacing and indentation ● Apply built-in styles to text <p>77. Create and configure sections</p> <ul style="list-style-type: none"> ● Format text in multiple columns ● Text and image presentation styles ● Clear formatting Manage tables and bulleted text <p>78. Create tables</p> <ul style="list-style-type: none"> ● Insert tables in PowerPoint ● Apply built-in table styles ● Create tables by specifying rows and columns <p>79. Modify tables</p> <ul style="list-style-type: none"> ● Insert and delete table rows and columns ● Configure cell margins and spacing ● Merge and split cells ● Resize tables, rows, and columns <p>80. Create and modify bulleted text</p> <ul style="list-style-type: none"> ● Format paragraphs as numbered and bulleted lists ● Change bullet characters and number formats ● Increase and decrease list indents ● Set starting number values ● Restart and continue list numbering on different slides <p>Create and manage reference elements (hyperlinks)</p> <ul style="list-style-type: none"> ● Create hyperlinks within presentations ● Create hyperlinks in presentations for files and other sources <p>Manage graphic elements</p> <p>81. Insert illustrations and text boxes</p> <ul style="list-style-type: none"> ● Insert shapes ● Insert pictures ● Insert SmartArt graphics ● Insert screenshots and screen clippings <p>82. Format illustrations and text boxes</p> <ul style="list-style-type: none"> ● Apply artistic effects ● Apply picture effects and picture styles ● Remove picture backgrounds ● Crop images ● Format graphic elements ● Format SmartArt graphics <p>83. Add and modify text in graphic elements</p> <ul style="list-style-type: none"> ● Add and modify text in text boxes ● Add and modify text in shapes ● Add and modify SmartArt graphic text 	
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	<ul style="list-style-type: none"> ● Create, insert and modify charts Manage Audio & Video elements <p>84. Add Audio elements</p> <ul style="list-style-type: none"> ● Import audio files in Presentations <p>Configure audio playback options</p> <p>85. Add Video elements</p> <ul style="list-style-type: none"> ● Import video files in presentations ● Resize video to fit slide ● Configure video playback <p>Options</p> <p>Manage transitions and animations</p> <p>86. Add slide transitions</p> <ul style="list-style-type: none"> ● Add same slide transition for all slides ● Set transition effect duration ● Configure transition start and finish options ● Customise select slide transitions <p>87. Add animations</p> <ul style="list-style-type: none"> ● Animate text and graphic elements ● Order shapes, images, and text boxes ● Group shapes, images, and text boxes ● Configure animation effects ● Configure animation paths ● Reorder animations on a slide <p>Manage collaboration</p> <p>88. Add and manage comments</p> <ul style="list-style-type: none"> ● Add comments ● Review and reply to comments 	
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PAPER–I(Practical)

PART A: EMPLOYABILITY SKILLS

Unit–I: Communication Skills-III

1. Role-play on the communication process.
2. Group discussion on the importance of communication and factors affecting perspectives in communication.
3. Charts preparation onelements of communication.
4. Classroom discussion on the 7Cs (i.e. Clear, Concise, Concrete, Correct, Coherent, Courteous and Complete) for effective communication.
5. Role-play of a phone conversation.
6. Group activity on delivering a speech and practicing public speaking.
7. Role-play on non-verbal communication.
8. Group exercise and discussion on Do's and Don'ts to avoid body language mistakes.
9. Group activity on methods of communication.
10. Group activities on practicing pronunciation.
11. Group discussion on communication styles.
12. Group discussion on observing and sharing communication styles.
13. Group discussion on how to say 'No'.
14. Group activity on identifying parts of speech.
15. Writing a paragraph with punctuation marks.

16. Group activity on constructing sentences.
17. Group activity on identifying parts of speech.
18. Activity on framing sentences.
19. Activity on active and passive voice.
20. Assignment on writing different types of sentences.
21. Role-play on formal and informal greetings.
22. Role-play on introducing someone.
23. Practice and group discussion on how to greet different people.
24. Practicing self-introduction and filling up forms.
25. Practicing self-introduction to others.
26. Practice exercise on forming questions.
27. Group activity on framing questions.
28. Practice talking about family.
29. Role-play on talking about family members.
30. Group discussion on habits and routines.
31. Group activity on describing routines.
32. Role-play on asking and giving directions.
33. Identifying symbols used for giving directions.

Unit-2:Self-managementSkills- III

1. Activity on writing aims in life.
2. Preparing a worksheet on interests and abilities.
3. Role-play on dressing and grooming standards.
4. Self-reflection activity on various aspects of personal grooming
5. Role-play on personal hygiene.
6. Assignment on personal hygiene.
7. Assignment on working in a team.
8. Self-reflection on team work.
9. Group activity on networking in action.
10. Assignment on networking skills.
11. Activity on staying motivated.
12. Assignment on reasons hindering motivation.
13. Assignment on setting SMART goals.
14. Activity on developing long-term and short-term goals using SMART method.
15. Preparing a checklist of daily activities.

Unit–3:Information & Communication Technology Skills–III

1. Demonstration and practice of the following:
 - Creating a new document
 - Typing text
 - Saving the text
 - Opening and saving file on Microsoft Word/Libre Office Writer.
2. Group activity on using basic user interface of Libre Office writer.
3. Group activity on working with Microsoft Word.
4. Group activity on performing the functions for saving,closing and printing documents in

Libre Office Writer.

5. Group activity on performing the functions for saving, closing and printing documents in Microsoft Word.
6. Group activity on formatting text in Libre Office Writer.
7. Group activity on formatting text in Microsoft Word.
8. Group activity on checking spellings and grammar using Libre Office Writer.
9. Group activity on checking spellings and grammar using Microsoft Word.
10. Practical exercise of inserting lists and tables using Libre Office Writer.
11. Practical exercise of inserting header, footer and page numbers in Libre Office Writer.
12. Practical exercise of inserting header, footer and page numbers in Microsoft Word.
13. Group activity on performing track changes in Libre Office Writer.
14. Group activity on performing track changes in Microsoft Word.

PAPER-II(Theory)

PART A: EMPLOYABILITY SKILLS

Unit-I: Entrepreneurship Development Skills-III

- ☞ Introduction to entrepreneurship, Types of business activities.
- ☞ Meaning of value, Values of an Entrepreneur, Case study on qualities of an entrepreneur.
- ☞ Difference between the attitude of entrepreneur and employee.
- ☞ Problems of entrepreneurs, Problem-solving, Ways to think like an entrepreneur.
- ☞ The business cycles, Principles of idea creation, Generating a business idea, Case studies.
- ☞ Understanding customer needs, Conducting a customer survey.
- ☞ Importance of business planning, Preparing a business plan, Principles to follow for growing a business, Case studies.

Unit-2: Green Skills-III

- ☞ Meaning of eco-system, food chain and sustainable development, Main sectors of the green economy-E-waste management, green transportation, renewal energy, green construction, and water management.
- ☞ Policies for a green economy.
- ☞ Stakeholders in the green economy.
- ☞ Role of the government in promoting a green economy, Role of private agencies in promoting green economy.

PART B: VOCATIONAL SKILLS

	Theory	Practical
Unit -I	<ul style="list-style-type: none"> • Overview of IT and its significance in the modern world. • Overview of IT and its significance evolution of computing technology digital literacy and responsible use of technology. 	<ul style="list-style-type: none"> • Make a journal, recording every instance where we use IT in daily lives and discuss how IT has become an integral part of modern life . • Milestones (e.g., invention of the computer ,development

		of the internet, introduction of smartphones).
Unit - II	Computer languages and Number System	
	Theory	Practical
	<p>1. Computer languages</p> <ul style="list-style-type: none"> • Introduction to computer language: Machine language, assembly language and high-level language. • Number system : positional and non- positional number system, types of numbers, conversion. (Binary, Octal,Decimal,Hexadecimal) • Computer codes(BCD,ASCII,EBCDIC), sign magnitude. • Algorithm and flow chart of programming. 	<ul style="list-style-type: none"> • List out the languages of computer. • List out the 4GL translators. • Introduce all level programming languages. • Prepare a project on algorithm and flow chart of programming on chart paper.
Unit - III	INTRODUCTION TO INTERNET AND INTRANET	
	Theory	Practical
	<p>1. Internet</p> <p>Basics of the internet, its history, architectures, protocols, and various web services and technologies. TCP/IP and the OSI model DNS (domain name system) and IP addressing.</p> <p>Introduction to web browsers navigating the web, bookmarks, and tabs</p> <p>2. Intranet</p> <p>Design, implementation, and management of intranet networks concept and purpose of intranets. Design and set up an intranets network. Content management and collaboration tools for intranets. Master intranet security and user access control. Intranet administration. Definition and purpose of intranets benefits and challenges of intranet implementation.</p>	<ul style="list-style-type: none"> • Students should use web browsers to navigate the Internet, open multiple tabs. bookmark websites, and manage their browsing history. • Assign research topics and ask students to use search engines effectively to find information. • Create a list of common online security threats (e.g., phishing emails, malware). Simulate these threats in controlled environments and ask students to identify and respond to them. • Set up a small-scale intranet using a local server or software. • Assign students to create and upload content to the intranet. • Demonstrate the configuration of user access controls. authentication methods, and encryption. • Troubleshoot and resolve common intranet issues. • Discuss backup and disaster

		<p>recovery strategies for the intranet.</p> <ul style="list-style-type: none"> Identify and mitigate threats within the intranet environment.
Unit - IV	'C' Programming	
	Theory	Practical
	<p>1. C Programming</p> <p>Understand the basic concepts of programming and algorithmic thinking.</p> <p>Write, compile, and debug C Programs.</p> <p>Develop problem-solving skills using Programming.</p> <p>Work with fundamental data types, operators, and control structures in C.</p> <p>Develop an understanding of functions, arrays, and pointers.</p>	<ul style="list-style-type: none"> Write a simple C program that displays "hello, world!" on the screen. Explain the basic structure of a C program, including the main function. Create a program that declares and initializes variables of various data types, such as integers, floats, and characters. Develop a program that performs basic arithmetic operations (addition, subtraction, multiplication, and division) on user-input numbers. Write a program that asks the user for their age and determines if they are eligible to vote based on their age. Create programs that demonstrate the use of for and while loops to display patterns (e.g., stars, numbers) or calculate factorial and sum of numbers. Implement a program that uses arrays to store and manipulate a list of numbers, such as finding the maximum and minimum values. Introduce array indexing and loops for array traversal. Develop a program with user-defined functions to perform specific tasks, such as calculating the area of a circle, finding prime numbers, or reversing a string. Create a program that handles strings, including reading input, finding string length, concatenating strings, and comparing strings. manipulation, passing by reference

PAPER–II(Practical)

PART A: EMPLOYABILITY SKILLS

Unit–I: Entrepreneurship Development Skills-III

1. Role-play on different kinds of businesses around us.
2. Role-play on qualities of an entrepreneur.
3. Interviewing employees and entrepreneurs.
4. Group activity on identifying and solving problems.
5. Brain storming on generating a business ideas.
6. Group activity to conduct a customer survey.
7. Group activity on developing a business plan.

Unit–2:GreenSkills–III

1. Group discussion on sectors of green economy.
2. Poster making on various sectors for promoting green-economy.
3. Group discussion on initiatives forpromoting the green economy.
4. Writing an essay or a short note on the important initiatives for promoting green economy.
5. Group discussion on the role of stakeholders in the green-economy.
6. Making solar bulbs.
7. Group discussion on the role of Government and Private Agencies in promoting a green economy.
8. Poster making on green-sectors.

CLASS–XII

PAPER–III					
(Theory&Practical)					
FullMarks:50					
Part	Unit&Topic		No.of Theory Classes	No.of Practical Classes	Maximum Marks
Part-A	EmployabilitySkills				
	Unit-1	CommunicationSkills-IV	9	4	10
	Unit-2	Self-managementSkills-IV	9	4	
	Unit-3	Information&CommunicationTechnology Skills-IV	10	4	
Part–B	VocationalSkills				
	Unit-1	Fundamentals of ERP	16	9	40
	Unit-2	Basics of Procurement Policy and BPO’s	16	9	
		Total	60	30	50
Part-C	PracticalWork				
		PracticalExamination			20
		WrittenTest			15
		VivaVoce			10
		Record			05
		Total			50
		Grand Total			100

PAPER–IV					
(Theory&Practical)					
Full Marks:50					
Part	Unit&Topic		No.of Theory Classes	No.of Practical Classes	Maximum Marks
Part-A	Employability Skills				
	Unit-1	Entrepreneurial Skills-IV	12	4	10
	Unit-2	Green Skills-IV	12	5	
Part–B	Vocational Skills				
	Unit-I	Database Management System	12	08	40
	Unit-II	HTML	12	08	
	UNIT-III	Artificial intelligence	12	05	
		Total	60	30	50
Part-C	Practical Work				

		Practical Examination			20
		Written Test			15
		VivaVoce			10
		Record			05
		Total			50
		Grand Total			100

PAPER–III(Theory)

PART–A:EMPLOYABILITYSKILLS

Unit–1:CommunicationSkills–IV

- ☞ Activelistening-listeningskill,stagesofactivelistening,Overcomingbarrierstoactive listening.
- ☞ Partsofspeech–usingcapitals,punctuation,basicpartsofspeech,Supportingpartsof speech.
- ☞ Writing skills to practice the following:
 - Simple sentence
 - Complex sentence
 - Types of object,
 Identify the types of sentences
 - Active and Passive sentences
 - Statement/
 - Declarative sentence
 - Question/
 - Interrogative sentence
 - Emotion/Reaction or Exclamatory sentence
 - Order or Imperative sentence,paragraph writing.

Unit2: Self-management Skills–IV

- ☞ Motivation and positive attitude, Intrinsic and extrinsic motivation, Positive attitude – ways to maintain positive attitude, Stress and stress management – ways to manage stress.
- ☞ Howtobecomeresultoriented?,Goalsetting–examplesofresult-orientedgoals.
- ☞ Stepstowardsself–awareness,Personalityandbasicpersonalitytraits,Commonpersonality disorders-
 - Suspicious
 - Emotional and impulsive
 - Anxious,
 Steps to overcome personality disorders.

Unit3: Information and Communication Technology Skills–IV

- ☞ Getting started with spreadsheet- types of a spreadsheet, steps to start LibreOffice Calc., components of a worksheet.
- ☞ Opening workbook and entering data–types of data, steps to enter data, editing and deleting data in a cell, Selecting multiple cells, Saving the spreadsheet in various formats, Closing the spreadsheet, Opening the spreadsheet, Printing the spreadsheet.
- ☞ Using a spreadsheet for addition – adding value directly, adding by using cell address, using a

mouse to select values in a formula, using sum function, copying and moving formula, Need to format cell and content, Changing text style and font size, Align text in a cell, Highlight text.

- ☞ Sorting data, Filtering data, Protecting spreadsheet with password.
- ☞ Presentation software available, Steps to start LibreOffice Impress, Adding text to a presentation.
- ☞ Open, Close, Save and Print a slide presentation.
- ☞ Working with slides and text in a presentation - adding slides to a presentation, deleting slides, adding and formatting text, highlighting text, aligning text, changing text colour.
- ☞ Advanced features used in a presentation, Inserting shapes in the presentation, Inserting clipart and images in a presentation, Changing slide layout.

PART-B: VOCATIONAL SKILLS

	Theory	Practical
Unit -I	Fundamentals of ERP 1. Define Enterprise. Define Planning. Challenges of enterprise systems. Uses of enterprise resource planning. Understanding the factors affecting ERP. Advantages of ERP. ERP vendors 2. Define time management concept and importance of time management. Understanding the improve time management skills. Define time management in IT.	<ul style="list-style-type: none"> List the advantages of ERP. List the components of ERP. List the ERP vendors. <p>Explain basic structure of an Enterprise Resource Planning system.</p> <p>Communicate typical integrated business processes in an ERP such as procurement. Perform common business transactions as an end-user in an ERP system.</p> <p>Configure an ERP system for specific business processes.</p> <p>Perform an activity to Contribute as a member of an ERP implementation or configuration.</p> <p>Interpret the concept and importance of time management.</p> <p>List the ways to improve time management skills.</p> <p>Improve time management skills.</p> <ul style="list-style-type: none"> Promote sharing of ideas and group participation to resolve a problem or question
Unit - II	Basics of Procurement Policy and BPO's	
	Theory	Practical
	1. Introduction Procurement Policies. Explain the Benefits and Limitations Procurement Policies. 2. Define Business Process.	Interpreted the Importance of Procurement Policies. List the Benefits and Limitations of Procurement Policies. List the various leading Indian BPO.

	<p>Introduction to BPO Industry. Understanding Role of BPO Industry.</p> <p>Understanding type of BPO services.</p>	<p>Explain the applications Area of BPO.</p> <p>List the Different services of BPO.</p> <p>Interpreted the importance of BPO industry.</p> <p>List the Indian leading BPO Company.</p> <p>Case study about a BPO Company.</p>
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PAPER–III(Practical)

PART–A:EMPLOYABILITY SKILLS

Unit–1:Communication Skills–IV

1. Group discussion on factors affecting active listening.
2. Poster making on steps for active listening.
3. Role-play on negative effects of not listening actively.
4. Group practice on identifying parts of speech.
5. Group practice on constructing sentences.
6. Group activity on writing sentences and paragraphs.
7. Group activity on practicing writing sentences in active or passive-voice.
8. Group activity on writing different types of sentences(i.e.declarative,exclamatory, interrogative and imperative)

Unit2: Self-management Skills–IV

1. Role-play on avoiding stressful situations.
2. Activity on listing negative situations and ways to turn it positive.
3. Group activity on listing aim in life.
4. Group discussion on self-awareness.
5. Group discussion on common personality disorders.
6. Brain storming steps to overcome personality disorder.

Unit3: Information and Communication Technology Skills–IV

1. Group activity on identifying components of spreadsheet in LibreOffice Calc.
2. Group activity on working with data on LibreOffice Calc.
3. Group activity on formatting a spreadsheet in LibreOffice Calc.
4. Group activity on performing basic calculations in LibreOffice Calc.
5. Group activity on sorting data in LibreOffice Calc.
6. Group practice on working with LibreOffice Impress tools.
7. Group activity on saving, closing and opening a presentation in LibreOffice Impress.
8. Group activity on working with fontstyles in LibreOffice Impress.
9. Group activity on changing slidelayout on LibreOffice Impress.

PAPER–IV(Theory)

PART–A: EMPLOYABILITY SKILLS

Unit–1:Entrepreneurial Skills –IV

- ☞ Entrepreneurship and entrepreneur, Characteristics of entrepreneurship, Entrepreneurship art and science, Qualities of a successful entrepreneur, Types of entrepreneurs, Roles and functions of an entrepreneur, What motivates an entrepreneur, Identifying opportunities and risk-taking, Startups.
- ☞ Barriers to entrepreneurship, Environmental barriers, No or faulty business plan, Personal barriers.
- ☞ Entrepreneurial attitude,
- ☞ Entrepreneurial competencies, Decisiveness, Initiative, Interpersonal skills - positive attitude, stress management, Perseverance, Organizational skills – time management, goal setting, efficiency, managing quality.

Unit-2: Green Skills-IV

- ☞ Green jobs, Benefits of green jobs, Green jobs in different sectors:
 - Agriculture
 - Transportation
 - Water conservation
 - Solar and wind energy
 - Eco-tourism
 - Building and construction
 - Solid waste management
 - Appropriate technology
- ☞ Importance of green jobs in
 - Limiting greenhouse gas emissions
 - Minimizing waste and pollution
 - Protecting and restoring ecosystems
 - Adapting to the effects of climate change
- ☞ Green jobs, Benefits of green jobs, Green jobs in different sectors:
 - Agriculture
 - Transportation
 - Water conservation
 - Solar and wind energy
 - Eco-tourism
 - Building and construction
 - Solid waste management
 - Appropriate technology

PART-B: VOCATIONAL SKILLS

	Theory	Practical
Unit - II	HTML	

	1. What is HTML 2. Tags 3. Attributes 4. Structure 5. Text Content 6. Links and Images 7. Comments	Write Some Programmes Using HTML like: Hello World Paragraph and Line Breaks Unordered List Ordered List Link Image etc...
Unit - III	ARTIFICIAL INTELLIGENCE	
	Theory	Practical
	Introduction to AI 2. Different Uses of AI 3. AI in Business Organizations	<ul style="list-style-type: none"> Do multiple tasks like Letter Writing, Project Making, Making Spreadsheets etc.... using AI.

PAPER–IV(Practical)

PART–A:EMPLOYABILITYSKILLS

Unit–1:EntrepreneurialSkills –IV

1. Group discussion on the topic “An entrepreneur is not born but created”.
2. Conducting a classroom quiz on various aspects of entrepreneurship.
3. Chart preparation on types of entrepreneurs.
4. Brain storming activity on What motivates an entrepreneur.
5. Group discussion about “What we fear about entrepreneurship”.
6. Activity on taking an interview of an entrepreneur.
7. Group activity on identifying entrepreneurial attitude.
8. Playing games, such as “Who am I”.
9. Brain storming a business ideas.
10. Group practice on “Best out of Waste”.
11. Group discussion on the topic of “Let’s grow together”.
12. Group activity on listing stress and methods to deal with it like Yoga, deep-breathing exercises, etc.
13. Group activity on time management.

Unit–2:GreenSkills- IV

1. Group discussion on the importance of greenjob.
2. Chart preparation on green jobs in different sectors.
3. Preparing posters on green jobs.
4. Group activity on tree plantation.
5. Brainstorming different ways of minimizing waste and pollution.
6. Group discussion on the importance of green job.
7. Chart preparation on green jobs in different sectors.

