

**CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26**

CLASS: I

Subject: Computer Science

Reference: IT ELEMENTS

SCHEDULE :2PD/ WEEK

MONTH	THEORY	Key Concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/skill area developed	CVP Integrated values
JUNE (20)	COMPUTER:A MACHINE	Machines in daily life Natural & Man made things What is a machine? Computer:A smart machine Types of computers	Sport Integration -"STAND UP IF "ACTIVITY,by telling few sentences relevant to machines or computers Identify different machines & natural things Identify machine in your home	Thinking, Observation conceptual Skills are developed	CLASSIFICATION, CREATIVITY,OBSERVATION & CONCENTRATION
JULY (22)	PARTS OF COMPUTER	Main parts of a computer Other parts of a computer	AI -Colour the parts of computer , Solving worksheet and identify the different parts of a computer Draw parts of a computer Computer Room Manners	Identify different parts of a computer,Awareness and analysing skills are developed	OBSERVATION & CONCENTRATION
AUGUST (19)	HANDLING A MOUSE	Computer Mouse Mouse Actions Touch pad	EL/TI -Hold and practise mouse actions and movements Tuxpaint or G-compris game Practice	Controlling of pointer using different buttons of a mouse.Practical Skills are developed	CONCENTRATION &COMPARISON
SEPTEMBER(17)	ASSESSMENT				

OCTOBER(20) & NOVEMBER(21)	USING THE KEYBOARD	TYPES OF KEYS SPECIAL KEYS	AI -Colour the keys on the keyboard by using the given color code EL/TI -Identify the different keys on the key board by typing. Practice Tux typing	Entering words and numbers using a keyboard, Practical Skills are developed	COMPARISON, CREATIVITY, IMAGINATION & CONCENTRATION
DECEMBER(18) & JANUARY(19)	FUN WITH MICROSOFT PAINT	STARTING M S PAINT PARTS OF PAINT WINDOW DRAWING SHAPES COLORING SHAPES	AI/EL/TI -Draw and color pictures Practice Pencil Drawing	Painting simple pictures. Thinking and Practical skills are developed	CONCENTRATION & COMPARISON CREATIVITY, IMAGINATION & CONCENTRATION
FEBRUARY(20)	FUN WITH TUX PAINT	STARTING TUX PAINT PARTS OF TUX PAINT WINDOW ADDING A NEW DRAWING WINDOW COLOURING A DRAWING SAVING A DRAWING OPENING A NEW CANVAS USING THE STAMP, PAINT AND ERASE TOOLS CLOSING TUX PAINT	AI/EL -Draw and color pictures	Thinking and Practical skills are developed	CONCENTRATION & COMPARISON CREATIVITY, IMAGINATION & CONCENTRATION
MARCH	ASSESSMENT				

CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26

CLASS: II
Elements

Subject: Computer Science

Reference: IT

SCHEDULE : 2PD/ WEEK

MONTH	THEORY	Key Concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/skill area developed	CVP Integrated values
JUNE(20)	USES OF COMPUTER	Difference between Humans and Computer Types of Computers Uses of Computer at different places	AI -Circle the places where computers are used Match different types of computers with their pictures	Thinking and analytical skills are developed	OBSERVATION, CONCENTRATION & COMPARISON
JULY(22)	PARTS OF COMPUTER	Parts of a computer & functions of the main parts	AI -Colour the parts of computer , Name the various devices that are attached to the computer. Solving worksheet and identify the different parts of a computer	Identify different parts of a computer, Awareness and analysing skills are developed	OBSERVATION & CONCENTRATION
AUGUST (19)	OPERATING A COMPUTER	Starting a computer Parts of the desktop Shutting down a computer	AI -Number the steps to switch on a computer in the correct order.	Awareness and analysing skills are developed	OBSERVATION & CONCENTRATION
SEPTEMBER(17)	ASSESSMENT				
OCTOBER (20) & NOVEMBER (21)	WORKING IN MS PAINT	Tools and features	AI/EL/TI -Draw and color pictures	Painting simple pictures. Thinking and Practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
DECEMBER (18) & JANUARY (19)	TUX PAINT	Tools & Components of TUX PAINT	TI/EL/AI -Draw pictures using different tools in paint/Tux paint	Painting simple pictures. Practical Skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION

JANUARY (19)& FEBRUARY (20)	KEYBOARD	Functions of different keys Use the keyboard keys	TI/EL/AI -Activities related to specials keys (Typing,word games using TEXT EDITOR)	Entering words and numbers using a keyboard.Practical Skills are developed	COMPARISON, CREATIVITY, IMAGINATION & CONCENTRATION
MARCH (21)	ASSESSMENT				

**CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26**

CLASS:

SUBJECT:COMPUTER SCIENCE

REFERENCE MATERIAL: IT ELEMENTS

SCHEDULE: 2 PD/1 WEEK

III

Month/ No. of working days/ No. of periods per subject	Unit/ Chapter/ Sub theme	Key concepts	Activities/ Practicals/ Technology integration/ Art Integration/ Experiential Learning	Learning outcomes/ skill area developed	CVP Integrated values
JUNE(20)	INTRODUCTION TO IPO	<ul style="list-style-type: none"> Working of a Computer Advantages of a computer Limitations of a computer 	AI/EL- Differentiate Household Appliances with IPO concept and Collect Examples Draw IPO Cycle	<ul style="list-style-type: none"> Thinking, Imagination and designing skills are developed 	ORGANIZATION & CONCENTRATION

JULY(22)	COMPUTER DEVICES	<ul style="list-style-type: none"> • Input devices • Processing Device • Output Device • Storage Device 	AI/EI- Using Ms paint draw hardware device and label them and identify Input and Output Storage Device	<ul style="list-style-type: none"> • Thinking and awareness skills are developed. 	ORGANIZATION & CONCENTRATION, IMAGINATION AND CREATIVITY
AUGUST(19)	KEYBOARD AND MOUSE	<ul style="list-style-type: none"> • Keys on a keyboard • On-screen Keyboard <ul style="list-style-type: none"> • Mouse 	Sports Integration -Do Hands exercises while using Keyboard and Mouse AI/EL- Draw keyboard and identify Keys with Different Colors Practice Tux paint or G compris game for holding mouse and movements	<ul style="list-style-type: none"> • Awareness and analyzing skills are developed • Handling computer devices carefully, sharing of recourses 	POSTER, ORGANIZATION & CLASSIFICATION,
SEPTEMBER(17)	ASSESSMENT				
OCTOBER(20)	OPERATING SYSTEM	Microsoft windows Desktop and its components Selecting and Deselecting Icons Opening an Application Arranging Desktop Icons Sorting Desktop icons Changing the desktop background Changing the screen saver	EL/AI/TI- Selecting and Sorting multiple icons Change the background of the desktop Selecting and Deselecting Icons	<ul style="list-style-type: none"> • Awareness and analyzing skills are developed • Handling computer devices carefully, sharing of recourses 	MENTAL AND PHYSICAL DEVELOPMENT

NOVEMBER(20)	INTRODUCTION TO WORD	Starting MS Word Components of MS Word Creating a New Document Formatting Text Saving a Document Opening a Saved document Closing Ms word	EL/AI/TI - Using formatting tools (font type, size and style) on the typed text.	<ul style="list-style-type: none"> Thinking and Practical Skills are developed 	MENTAL AND PHYSICAL DEVELOPMENT
DECEMBER(18) & JANUARY(19)	INTRODUCTION TO SCRATCH	<ul style="list-style-type: none"> Starting Scratch Main components of scratch <ul style="list-style-type: none"> Drag and drop blocks in the script area Moving a sprite Drawing a colourful sprite Making a copy of a sprite <ul style="list-style-type: none"> Saving a project Opening a saved project 	EL/AI/TI - Use appropriate blocks(Motion, Pen, Events and Control) and write the program. Change the Backdrop of the Stage.	Programming and Practical Skills are developed	CREATIVITY, IMAGINATION & CONCENTRATION
FEBRUARY(20) AND MARCH(21)	ASSESSMENT				

CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26

CLASS: IV

Subject: Computer Science

Reference: IT

Elements

SCHEDULE :2PD/ WEEK

MONTH	THEORY	Key Concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/skill area developed	CVP Integrated values
JUNE (20)	COMPUTER MEMORY	Types of memory- <ul style="list-style-type: none"> • Primary Memory • Secondary Memory • Storage devices 	EL/TI -Store a file on a pen drive, play a movie or song from CD or DVD AI - Draw a few storage devices	Thinking and analyzing skills are developed Logical Thinking Information Gathering	ORGANIZATION & CONCENTRATION
JULY(22)	WORKING WITH WINDOWS	<ul style="list-style-type: none"> • Storage and Organization of Files and Folders • Classification of Content,Folder creation • Organizing files with in folders 	EL/AI/TI -Create a folder and subfolders to arrange your school work	Identify different location on a computer,Awareness and analyzing skills are developed	OBSERVATION & ORGANISATION MENTAL AND PHYSICAL DEVELOPMENT
AUGUST (19)	EDITING IN WORD	<ul style="list-style-type: none"> • Typing Text and Saving File • Creating, Opening and Closing a Document 	EL/AI/TI -Activities Related To Pictures,WordArt,Borders	Thinking ,creative, Literacy Awareness ,analyzing and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
SEPTEMBER (17)	ASSESSMENT				
OCTOBER (20)	FORMATTING IN WORD	<ul style="list-style-type: none"> • Paragraph formatting 	AI/EL/TI -Write four paragraphs on "Save Natural Resources" apply the formatting features	Thinking ,creative, Literacy Awareness ,analyzing and practical skills are developed	CREATIVITY, IMAGINATION,

		<ul style="list-style-type: none"> • Modifying Page Layout • Header and Footer • Printing a document 			CONCENTRATION & OBSERVATION
NOVEMBER (20)	INTRODUCTION TO INTERNET	<ul style="list-style-type: none"> • What is Internet? • Uses of Internet • Basic Terms Related to internet • Opening a Web Browser & Website 	EL/AI/TI -Prepare a Presentation on internet. Searching various topics in Internet such as Indian rivers ,your favourite cartoon. List various search engines we use.	Awareness and analysing skills are developed. Thinking,analytical, are developed	CREATIVITY , OBSERVATION & CONCENTRATION
DECEMBER (18)	INTRODUCTION TO POWERPOINT	<ul style="list-style-type: none"> • Components of Microsoft powerpoint • Creating and viewing a powerpoint presentation • Powerpoint tools 	EL/AI/TI Create a short presentation titled my favourite things or "India; Our Motherland"	Awareness and analyzing skills, Creative thinking, Stepwise thinking and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
JANUARY (19) & FEBRUARY (20)	MOVEMENTS OF A SPRITE	<ul style="list-style-type: none"> • Creating a New Project • Changing the appearance of a sprite • Making a Sprite say something 	EL/TI/AI -Writing scripts to make the sprite say something about computer manners,change the costume of the sprite	Awareness , analysing skills ,Logical thinking ,Decision making are developed	CREATIVITY & CONCENTRATION
MARCH (21)	ASSESSMENT				

CHINMAYA VIDYALAYA PALAKKAD CLUSTER

CURRICULUM PLANN 2025-26

CLASS: V

SUBJECT: COMPUTER SCIENCE

REFERENCE MATERIAL: IT ELEMENTS

SCHEDULE: 2 PD/1 WEEK

Month/ No. of working days/ No. of periods per subject	Unit/ Chapter/ Sub theme	Key concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/ skill area developed	CVP Integrated values
JUNE (20)	MORE ON WINDOWS	<ul style="list-style-type: none"> • Windows Media Player • Control panel • Installing and uninstalling an application • Troubleshooting 	<p>EL/AI/TI –Copying content from secondary storage devices.</p> <p>Navigate control panel to manage various settings of a computer system</p>	Thinking and Analyzing skills are developed. taking appropriate precautions while using a computer	OBSERVATION & CLASSIFICATION CONCENTRATION
JULY (22)	INSERTING OBJECTS IN WORD	<ul style="list-style-type: none"> • Adding clipart ,pictures from files • Inserting ,editing,deleting and formatting WordArt • Inserting Shapes and adding text into them 	<p>EL/AI/TI-Poster on “Save Tigers” in MSword</p>	Thinking, Imagination and Observation skills are developed	OBSERVATION & CONCENTRATION

		<ul style="list-style-type: none"> • Inserting Symbol 			
AUGUST (19)	CREATING PRESENTATION	<ul style="list-style-type: none"> • Starting MS PowerPoint2010 • Creating Presentation using sample templates,existing presentation and using Themes 	EL/AI/TI –Create a short presentation on “Reducing Pollution”	Awareness and analysing skills are developed	CREATIVITY & CONCENTRATION
SEPTEMBER (17)	ASSESSMENT				
OCTOBER (20)	FORMATITNG A PRESENTATION	<p>Changing background color Applying formatting color Adding clipart and pictures</p>	EL/AI/TI –Create a short presentation on “Incredible India”	Awareness and analysing skills are developed	CREATIVITY & CONCENTRATION
NOVEMBER (20)	INTRODUCTION TO EXCEL	<p>Spreadsheet Creating a New workbook Entering data in Excel Auto fill Editing and saving a workbook</p>	EL/TI/AI -Students marklist preparation	Critical thinking and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
DECEMBER (18) & JANUARY (19)	HANDLING MULTIPLE SPRITES	<p>Program using Multiple Sprites and Animations</p>	EL/AI/TI –Creating Animations using Programming	Awareness and analyzing skills are developed. Thinking,analytical, are developed	CREATIVITY , OBSERVATION & CONCENTRATION
FEBRUARY (20)	INTERNET AND EMAIL	<ul style="list-style-type: none"> • Internet • Search Engine • Email • Netiquette • Web browsers 	EL/AI/TI -Prepare a Presentation on internet. Searching various topics in	Awareness and analysing skills are developed.	CREATIVITY , OBSERVATION & CONCENTRATION

			Internet. List various search engines we use.	Thinking, analytical, are developed	
MARCH (21)	ASSESSMENT				

CHINMAYA VIDYALAYA PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS: VI

SUBJECT:COMPUTER SCIENCE

REFERENCE MATERIAL: IT ELEMENTS

SCHEDULE: 2 PD/1 WEEK

Month/ No. of working days/ No. of periods per subject	Unit/ Chapter/ Sub theme	Key concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/ skill area developed	CVP Integrated values
JUNE (22)	Computer Languages	<ul style="list-style-type: none"> • First Generation Language • Second generation language • Third generation Language • Fourth Generation language • Fifth Generation Language • Translation 	<p>AI/EI-Name the programming languages, Identify different types of languages</p>	Logical Thinking, Literary , creative , Practicing and conceptual Skills are developed	CREATIVITY,OBSERVATION &CLASSIFICATION
JULY(24)	More on Word	<ul style="list-style-type: none"> • Spelling and Grammar <ul style="list-style-type: none"> • Thesaurus • Mail merge 	<p>AI/EI-Prepare Mail merge Format a paragraph</p>	Thinking, Practicing and Practical Skills are developed	CREATIVITY, IMAGINATION & CONCENTRATION
AUGUST(21)	More on Power point	<ul style="list-style-type: none"> • Creating a Design Template • Applying Slide Transition • Applying Animation • Inserting Tables • Adding and Modifying Smart art • Inserting Hyperlinks and action buttons • Working with sounds and movies 	<p>EL/AI/TI -Prepare ppt on Animals with images and convert your PPT into Video Make a video on Various festivals</p>	Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION

		<ul style="list-style-type: none"> • Adding a narration to a presentation • Running a slide show • Converting a presentation into a video • Tips for an effective presentation 			
SEPTEMBER (18)	ASSESSMENT				
OCTOBER(22)	Formatting in Excel	<ul style="list-style-type: none"> • Selecting and Formatting cells • Aligning data • Merging cells • Inserting and deleting rows, columns and cells • Changing row height and column width • Applying borders and background color • Cell address • Operators and calculation in Excel 	<p>EL/AI/TI-Prepare student's Marklist</p> <p>Prepare Employee salary slip</p>	Thinking, Practicing and conceptual Skills are developed	OBSERVATION & CLASSIFICATION
NOVEMBER (23) DECEMBER (20)	Introduction to HTML 5	<ul style="list-style-type: none"> • HTML • Features of HTML 5 • Tools required for creating an HTML Document • HTML Tags, Elements and Attributes • Rules for Writing HTML Code • HTML Document structure • Heading ,paragraph and various other tags 	<p>EL/AI/TI –Write the HTML code for creating a web page on “Importance of education in our lives”.</p> <p>Save with .html extension and view it In a web browser</p>	Thinking, Practicing and Practical Skills are developed	CREATIVITY, IMAGINATION & CONCENTRATION
JANUARY (22)	THE INTERNET	<ul style="list-style-type: none"> • Requirements for internet connection • Common types of Internet connections 	<p>EL/AI/TI –Create a beautiful Birthday invitation card and it as an email attachment to your friend</p>	Thinking, Practicing and Practical Skills are developed	COMPARISON, CLASSIFICATION, CREATIVITY, IMAGINATION,

		<ul style="list-style-type: none"> • E-mail • Managing contacts in Gmail account • Real-time communication 			CONCENTRATION & OBSERVATION
FEBRUARY (22)	CYBER SECURITY	<ul style="list-style-type: none"> • Malware • Types of Malware • Cyber security 	EL/AI/TI -Prepare PPT on Antivirus software	Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
MARCH (23)	ASSESSMENT				

CHINMAYA VIDYALAYA PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS: VII

SUBJECT: COMPUTER SCIENCE

REFERENCE MATERIAL: IT ELEMENTS

SCHEDULE: 2 PD/1 WEEK

MONTH	THEORY	KEY CONCEPTS	Activities/ Practicals/ Technology integration//Art Integration/Experiential Learning	Learning Outcomes /Skill Area Developed	CVP Integrated values
JUNE (22)	Number System	<ul style="list-style-type: none"> • Decimal Number System • Binary number system • Octal number system • Hexadecimal number system • Conversion in number system • Computer arithmetic 	EL -Solve problems based on number conversion Convert binary to decimal and vice versa	Practicing and conceptual Skills are developed	OBSERVATION & CLASSIFICATION
JULY (24)	Functions in Excel	<ul style="list-style-type: none"> • Cell address and cell reference • Calculations in Excel <ul style="list-style-type: none"> • Functions • Auto sum 	EL/TI -Find auto sum Perform calculations in excel using Functions Find cell address and cell reference Students mark list preparation Calculation based on formulaes, Preparation of mark list	Use appropriate Excel tools ,Computational thinking & Logical thinking Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION & CONCENTRATION

AUGUST(21)	More on Excel	Sorting data Filtering data Conditional formatting charts	EL/TI/AI -Find grade using if function in a marksheet, Calculate Salary bill Calculation using different functions and insert chart	Use appropriate Excel tools ,Computational thinking & Logical thinking Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION & CONCENTRATION
SEPTEMBER (18)		ASSESSMENT			
OCTOBER (22)	Introduction to CSS	<ul style="list-style-type: none"> • Definition and Purpose of CSS • Different methods of applying CSS <ul style="list-style-type: none"> • Inline style • Background properties • text properties • font properties • margin properties • border properties 	EL/TI/AI -Create a sample webpage of art exhibition Create a webpage on the topic "Harmful effects of Gadgets"	Creativity Programming Skills Critical thinking skills Practicing and conceptual Skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
NOVEMBER (23)	Internet safety	<ul style="list-style-type: none"> • Data privacy • Responsible online behaviour • Online banking safety measures • Safe social media practices • E-mail courtesy • 	EL/TI/AI -Create a PowerPoint presentation on the topic "Safe social media practices" Create a poster on the topic "Netiquette"	Creativity Critical thinking skills Practicing and conceptual Skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
DECEMBER (20)	Introduction to Python	<ul style="list-style-type: none"> • Python : A programming language • Interpreter and compiler • IDE and IDLE • Modes of python • Keywords in python 	EL/TI/AI -write a python program to find out the product of 3 numbers? Write a python program to assign and print variables?	Creativity Programming Skills Critical thinking skills Practicing and conceptual Skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION

		<ul style="list-style-type: none"> • Variables in python • Data types in python • Assignmet operator • Print function 			
JANUARY (22)	More on python	<ul style="list-style-type: none"> • Use input function • Operators and its types • Operator precedence <ul style="list-style-type: none"> • BODMAS and PEDMAS 	EL/AI -write a python program to input any 3 numbers	Creativity Programming Skills Critical thinking skills Practicing and conceptual Skills are developed	ORGANISATION, CONCENTRATION & OBSERVATION
FEBRUARY (22)	Artificial Intelligence	History of AI Need of AI Types of AI AI Domains Developing Intelligent System Use of AI in various fields Future potential of AI AI Ethics	EL/AI -Use CORTANE app to talk and ask different questions Prepare a video on the topic "AI Technology "	Creativity Critical thinking skills Practicing and conceptual Skills are developed	ORGANISATION, CONCENTRATION & OBSERVATION
MARCH(23)	Assessment				

**CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26**

**CLASS: VIII
IT Elements
SCHEDULE :2PD/ WEEK**

Subject:Computer Science

Reference:

MONTH	THEORY	Key Concepts	Activities/ Practicals/ Technology integration/Art Integration/Experiential Learning	Learning outcomes/skill area developed	CVP Integrated values
JUNE (22)	Computer Networks	Introductions, Types of networks , network Architecture,Security and Topologies	TI/EL -Prepare a Powerpoint Presentation on Computer Network	Thinking, Practising and conceptual Skills are developed	OBSERVATION & CLASSIFICATION
JULY(24)	INTRODUCTION TO HTML LISTS AND TABLES IN HTML	Introduction, Writing HTML Documents,Basic HTML tags& attributes) Lists and Table –its properties	TI/EL -Write HTML code to create a webpage(Design student profile and Lists of books they have read using lists and table)	Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
AUGUST (21)	IMAGES,LINKS & FRAMES	Linking web pages and links. Frames and Iframe	TI/EL -Linking webpages-Create a school website using hyperlink	Hyperlink - ANCHOR tag Thinking, analytical and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
SEPTEMBER (18)	ASSESSMENT				
OCTOBER (22)	ROBOTICS	Introduction to Robotics,importance of Robotics in Daily life,Evolution of Robotics,Types of Robotics,Applications	AI/EL/TI -Draw diagrammatic representation to show how a typical robot works.	Thinking ,creative, Literacy Awareness ,analyzing and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION

		,Advantages and Disadvantages of Robotics			
OCTOBER (22) & NOVEMBER (23)	PYTHON (BRIDGE COURSE) STATEMENTS IN PYTHON	(BRIDGE COURSE- Features of Python, IDLE, Fundamental datatypes, Variables & Operators) Types of control Statement If statement	TI/EP-Write and execute simple programs using programming constructs such as to find whether a given number is odd or even & Find the percentage.	Write and execute simple programs using Selection statement.Thinking, analytical and practical skills are developed	CLASSIFICATION, CREATIVITY, IMAGINATION & CONCENTRATION
DECEMBER (20)	ITERATIVE STATEMENTS	Types of Iterative Statements- for loop	TI/EP-Write and execute simple programs using programming constructs(Write program to print natural numbers and multiples)	Write simple programs using for &while.Thinking, analytical and practical skills are developed	CLASSIFICATION, CREATIVITY, IMAGINATION & CONCENTRATION
JANUARY (22) & FEBRUARY (22)	CYBER ETHICS & CLOUD COMPUTING AND IoT	Cybercrimes against an individual,organization and property. Digital Footprint Types of Cloud Services,application,advantages and disadvantages. Future of cloud Computing and IoT	TI/EL-Prepare a rule list to be followed while working on social networking sites Prepare a presentation on Convergence of Cloud Computing	Critical thinking skills, taking appropriate precautions while using a computer	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
MARCH (23)	ASSESSMENT				

**CHINMAYA VIDYALAYA PALAKKAD CLUSTER
CURRICULUM PLAN 2025-26**

CLASS: IX
Reference: NCERT

Subject : IT - 402
SCHEDULE :2PD/ WEEK

MONTH	THEORY	Key Concepts	Activities/ Practicals/ Technology integration//Art Integration/Experiential Learning	LEARNING OUTCOMES /SKILL AREA DEVELOPED	CVP Integrated values
JUNE (22)	Digital Documentation	Create a document using a word processor Apply Editing features Apply formatting features	Editing of text in a document Search and replace text in a document. Apply various text formatting options for the text, Insert page break, Create header/footer and page numbers • Define borders and backgrounds • Insert images, shapes, special characters in a document	Thinking ,creative, Literacy Awareness ,analyzing and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
JULY(24)	Digital Documentation(contd) ELECTRONIC SPREADSHEET	Create and work with tables Use Print Options Create a Spreadsheet Apply formula and functions in spreadsheet	Create table, • Insert and delete rows and column in a table, • Split and merge tables Print the document with various options,	Thinking ,creative, Literacy Awareness ,analyzing and practical skills are developed	CREATIVITY, IMAGINATION, CONCENTRATION & OBSERVATION
AUGUST (21) & SEPTEMBER	ELECTRONIC SPREADSHEET(contd)	Format data in the spreadsheet Understand and apply Referencing	Construct the formula using mathematical operators, • Identify formulae with cell	Thinking, Practicing and conceptual Skills are developed	CLASSIFICATION, CREATIVITY, IMAGINATION & CONCENTRATION

(18)		Create and insert different types of charts in a spreadsheet	addresses and operators, <ul style="list-style-type: none"> • Identify the correct syntax of formula, Create different types of charts supported by a spreadsheet,		
OCTOBER (22)					
NOVEMBER (23) & DECEMBER (20)	DIGITAL PRESENTATION	Understand features of an effective presentation Create a presentation Work with slides Format text and apply animations Create and use tables Insert and format image in presentation Work with slide master	Create a new presentation Identify and list the various options in formatting toolbar, <ul style="list-style-type: none"> • Apply the appropriate formatting option • Align the text in presentation, • Apply bullets and numbering to the list items in presentation. Apply Animation		Intellectual development ➤ Imagination ➤ Creativity ➤ Classification

CHINMAYA VIDYALAYA PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS : X

SUBJECT:INFORMATION TECHNOLOGY

SCHEDULE: 2PD/WEEK

Part-A: EMPLOYABILITY SKILLS

- Unit 1: Communication Skills-II(JUNE)
- Unit 2: Self-management Skills-II(JUNE)
- Unit 3: Information and Communication Technology Skills-I(JULY)
- Unit 4: Entrepreneurial Skills-II(SEPTEMBER)
- Unit 5: Green Skills-II(OCTOBER)

Part-B – SUBJECT SPECIFIC SKILLS

- Unit 1: Digital Documentation (Advanced)(JUNE)
- Unit 2: Electronic Spreadsheet (Advanced)(JULY)
- Unit 3: Database Management System(AUGUST)
- Unit 4: Maintain Health, Safety and Secure Working Environment (SEPTEMBER)

PART A

UNIT 1: COMMUNICATION SKILLS – II *

Month	Theory	Learning outcomes	Key Concepts	Activity/Practical/Skill area development	CVP
JUNE(22)	Methods of Communication Verbal Non-verbal	Demonstrate knowledge of various methods of communication *	Methods of communication Verbal Non-verbal Visual	Writing pros and cons of written, verbal and non-verbal communication Listing do's and don'ts for avoiding common body language mistakes	PHYSICAL DEVELOPMENT AND UNIVERSAL OUTLOOK
	Communication cycle and importance of feedback	Provide descriptive and specific feedback*	Communication cycle and importance of feedback Meaning and importance of feedback Descriptive feedback - written comments or conversations Specific and non-specific feedback	Constructing sentences for providing descriptive and specific feedback	
	Barriers to effective communication	Apply measures to overcome barriers in communication*	Barriers to effective communication – types and factors Measures to overcome barriers in effective communication	Enlisting barriers to effective communication Applying measures to overcome barriers in communication	

	Principles of effective communication	Apply principles of communication*	Principles of effective communication 7 Cs of effective communication	Constructing sentences that convey all facts required by the receiver Expressing in a manner that shows respect to the receiver of the message Exercises and games on applying 7Cs of effective communication	
	Writing skills Parts of Speech	Demonstrate basic writing skills*	Writing skills to the following: Sentence Phrase Kinds of Sentences Parts of Sentence Parts of Speech Articles Construction of a Paragraph	1. Demonstration and practice of writing sentences and paragraphs on topics related to the subject	

UNIT 2: SELF - MANAGEMENT SKILLS – II

Month	Theory	Learning outcomes	Key Concepts	Activity/Practical/Skill area development	CVP
JUNE(22)	Stress Management	Apply stress management techniques	<p>Meaning and importance of stress management</p> <p>Stress management techniques – physical exercise, yoga, meditation</p> <p>Enjoying, going to vacations and holidays with family and friends</p> <p>Taking nature walks</p>	<p>Exercises on stress management techniques – yoga, meditation, physical exercises</p> <p>Preparing a write-up on an essay on experiences during a holiday trip</p>	HANDLING EMOTIONS - MENTAL DEVELOPMENT
	<p>Self-awareness —</p> <p>Strength and Weakness Analysis</p> <p>Self-motivation</p> <p>Self-regulation —</p> <p>Goal Setting —</p> <p>Time Management</p>	Demonstrate the ability to work independently	<p>Importance of the ability to work independently</p> <p>Describe the types of self-awareness</p> <p>Describe the meaning of self- motivation and self-regulation</p>	<p>Demonstration on working independently</p> <p>goals</p> <p>Planning of an activity</p> <p>Executing tasks in a specific period, with no help or directives</p> <p>Demonstration on the qualities required for working independently</p>	

UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – II

Month	Theory	Learning outcomes	Key Concepts	Activity/Practical/Skill area development	CVP
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JULY(24)	Basic Computer Operations Performing Basic File Operations	Distinguish between different operating systems	Classes of operating systems Menu, icons and task bar on the desktop File concept, file operations, file organization, directory structures, and file-system structures Creating and managing files and folders	Identification of task bar, icons, menu, etc. Demonstration and practicing of creating, renaming and deleting files and folders, saving files in folders and sub- folders, restoring files and folders from recycle bin	
	Computer Care and Maintenance Computer Security and Privacy	Apply basic skills for care and maintenance of computer	Importance and need of care and maintenance of computer Cleaning computer components Preparing maintenance schedule Protecting computer against viruses Scanning and cleaning viruses and removing SPAM files, temporary files and folders	1. Demonstration of the procedures to be followed for cleaning, care and maintenance of hardware and software	

UNIT 4: ENTREPRENEURIAL SKILLS- II

Month	Theory	Learning outcomes	Key Concepts	Activity/Practical/Skill area development	CVP
SEPTEMBER(18)	Entrepreneurship and Society Qualities and Functions of an Entrepreneur Myths about Entrepreneurship Entrepreneurship as a Career Option	List the characteristics of successful entrepreneur	Entrepreneurship and society Qualities and functions of an entrepreneur Role and importance of an entrepreneur Myth about entrepreneurship Entrepreneurship as a career option	Writing a note on entrepreneurship as career option Collecting success stories of first generation and local entrepreneurs Listing the entrepreneurial qualities – analysis of strength and weaknesses Group discussion of self-qualities that students feel are needed to become successful entrepreneur Collect information and related data for a business Make a plan in team for setting up a business	

UNIT 5: GREEN SKILLS – II*

Month	Theory	Learning outcomes	Key Concepts	Activity/Practical/Skill area development	CVP
OCTOBER(22)	Sustainable Development Our Role in	Demonstrate the knowledge of importance, problems and solutions	Definition of sustainable development	Identify the problem related to sustainable development in the community	

	Sustainable Development	related to sustainable development *	Importance of sustainable development Problems related to sustainable development	Group discussion on the importance of respecting and conserving indigenous knowledge and cultural heritage Discussion on the responsibilities and benefits of environmental citizenship, including the conservation and protection of environmental values Preparing models on rain water harvesting, drip / sprinkler irrigation, vermin-compost, solar energy, solar cooker, etc.	
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PART B

Unit 1: Digital Documentation (Advanced) using LibreOffice Writer

MONTH	THEORY	LEARNING OUTCOMES	KEY CONCEPTS	ACTIVITIES/PRACTICALS/SKILL AREA DEVELOPMENT	CVP Integrated values
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<p>JUNE(22)</p>	<p>Chapter 1: Introduction To Styles</p>	<p>Learn to create, update, and apply various styles in Libre Office Writer for effective and consistent document formatting.</p>	<ul style="list-style-type: none"> • Styles/ categories in Writer <ul style="list-style-type: none"> ➤ Page ➤ Paragraph ➤ Character ➤ Frame ➤ List ➤ Table • Styles and Formatting • Fill Format • Creating a new style <ul style="list-style-type: none"> ➤ From Selection method ➤ Drag and Drop method • Updating a new style • Load style from template or document. • Applying styles. 	<ul style="list-style-type: none"> • List Style Categories: Open the Styles and Formatting window, list available style categories, and select one style from each. • Use Fill Format: Apply a style to multiple areas of your document quickly using the Fill Format tool. • Create and Update a New Style: Create a new style from selected text and update it by modifying its attributes. • Load a Style from a Template or Document: Import and apply a style from a template or another document to your current work. • Create a New Style Using Drag-and-Drop: Create a new style by dragging and dropping formatted text into the Styles and Formatting panel. 	<ul style="list-style-type: none"> • CREATIVITY,OBSERVATION & CLASSIFICATION <p style="text-align: center;">CREATIVITY,OBSERVATION & CLASSIFICATION</p>
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	<p>Chapter 2: Working with Images</p>	<p>Able to insert, modify, and position images and drawing objects in a document, using various methods</p>	<ul style="list-style-type: none"> • Inserting an Image in a Document <ul style="list-style-type: none"> ➤ Insert Image Option ➤ Drag and Drop option 	<ul style="list-style-type: none"> • Insert an Image: Insert an image into a document using options such as Insert Image, Drag and Drop, Copy and Paste, and linking. • Modify an Image: Use the 	
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and options for effective document layout and formatting.

- Copy and Paste method
- Inserting an image by linking
- Options to modify image using image toolbar, resize, crop and delete an image.
- Drawing Objects
- Creating drawing objects
- Setting or changing its properties.
- Resizing and grouping drawing objects.
- Positioning image in the text.
- Arrangement
- Anchoring
- Alignment
- Text Wrapping

image toolbar to modify an image by resizing, cropping, and deleting it.

- **Create Drawing Objects:** Create various drawing objects within your document.
- **Set or Change Drawing Object Properties:** Adjust the properties of drawing objects, including color, line style, and fill.
- **Resize and Group Drawing Objects:** Resize individual drawing objects and group multiple objects together for better document organization.
- **Position the Image in the Text:** Adjust the image's position in the text using arrangement, anchoring, alignment, and text wrapping options.

	<p>Chapter 3: Advanced Features of Writer</p>	<p>Acquire skills in creating, customizing, and managing a Table of Contents, using and editing templates, and tracking and reviewing changes in</p>	<ul style="list-style-type: none"> • Table of contents • Hierarchy of headings • Creating a Table of Content (ToC) • Customization of Table Contents(ToC) • Maintaining a Table of Contents(ToC) 	<ul style="list-style-type: none"> • Create a Table of Contents (ToC): Generate and customize a Table of Contents in a document. • Maintain a Table of Contents: Update or delete the Table of Contents • Use Templates: Create, 	

			documents effectively.	<ul style="list-style-type: none"> • Updating ToC • Deleting ToC • Using templates • Creating a Template • Using In-built/Saved Templates & Using Online Templates • Importing a Template • Editing a Template • Moving a Template • Exporting a Template • Applying Templates to a Blank Document • Track Changes Feature & • Preparing a Document for Review & Recording Changes • Accepting and Rejecting Changes • Adding Comments • Deleting Comments • Comparing Documents 	<p>import, and apply templates to a blank document, using in-built, saved, or online templates.</p> <ul style="list-style-type: none"> • Edit a Template: Modify, move, and export an existing template. • Track Changes: Prepare a document for review by recording, accepting, or rejecting changes, and manage comments by adding or deleting them. <p>Compare Documents: Compare two versions of a document to identify and review differences</p>	<p>. CREATIVITY, OBSERVATION & CLASSIFICATION</p>
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Unit 2: Electronic Spreadsheet (Advanced) using LibreOffice Calc

MONTH	THEORY	LEARNING OUTCOMES	KEY CONCEPTS	ACTIVITIES/PRACTICALS/SKILL AREA DEVELOPMENT	CVP Integrated values
JULY(24)	<p>Chapter 4: Analyse data using scenarios and goal seek</p>	<p>Learn skills in consolidating data, using groups and subtotals, performing what-if analysis and scenarios, and utilizing the Goal Seek tool for decision-making.</p>	<ul style="list-style-type: none"> • Consolidating Data • Groups and Subtotals • What-if Scenarios • What-if Analysis Tool • Goal Seek 	<ul style="list-style-type: none"> • Use Consolidating Data: Aggregate data from multiple sources into a single summary. • Create Subtotals: Apply subtotals to data groups to summarize and analyze information. • Use “What-If” Scenarios: Create and analyze different scenarios to forecast outcomes based on varying inputs. • Use “What-If” Tools: Use tools like Scenario Manager for detailed what-if analyses. • Use Goal Seek and Solver: Use Goal Seek to find specific input values needed to achieve a desired result, and apply Solver for more complex problems 	<p>CREATIVITY, OBSERVATION & CLASSIFICATION</p>

					CREATIVITY, OBSERVATION & CLASSIFICATION
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	<p>Chapter 5: Using Macros in Spreadsheet</p>	<p>Develop skills in recording, running, creating, and organizing macros, and using them as functions for document automation.</p>	<ul style="list-style-type: none"> • Recording a Macro • Running a Macro • Creating and Organising a Simple Macro • Macro as a Function 	<ul style="list-style-type: none"> • Demonstrate the Use of a Macro Recorder: Record a macro to automate repetitive tasks. • Create a Simple Macro: Develop a basic macro to perform a specific function. • Use a Macro: Execute an existing macro to automate tasks in a document. • Pass Arguments to a Macro: Provide arguments to a macro to customize its behavior. • Pass the Arguments as Values: Supply values as arguments to a macro for dynamic operation. • Write Macros as Built-in Functions: Create macros that function similarly to built-in functions for enhanced functionality. • Access Cells Directly: Write macros to directly manipulate cell data in spreadsheets. • Sort Columns Using a Macro: Develop and use a macro to sort columns in a spreadsheet. 	<ul style="list-style-type: none"> •
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**Chapter 6:
Linking Spreadsheet Data**

Learn to set up multiple sheets, create references and hyperlinks within and across documents, and link to external and registered data sources.

Setting up multiple sheets.
Creating reference to other sheets by using keyboard and mouse.
Creating reference to another document by using keyboard and mouse.
Hyperlinks to the Sheet
Relative and Absolute Hyperlinks
Creating Hyperlinks
Editing a Hyperlink
Linking to External Data
Linking to Registered Data Sources

- **Setup Multiple Sheets:** Insert and organize new sheets within a workbook.
- **Create References to Other Sheets:** Use keyboard and mouse to create references between different sheets in a workbook.
- **Create References to Other Documents:** Use keyboard and mouse to link data from one document to another.
- **Create, Edit, and Remove Hyperlinks:** Add, modify, and delete hyperlinks to sheets within a workbook.
- **Link to External Data:** Connect and import data from external sources into your document.
- **Link to Registered Data Sources:** Establish links to registered data sources for data integration.

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	<p>Chapter 7:</p> <p>Share and Review a Spreadsheet</p>	<p>Develop the ability to share, open, and save shared spreadsheets, track and review changes, and handle comments and merging for effective collaboration.</p>	<ul style="list-style-type: none"> • Sharing Spreadsheet • Opening and saving a shared spreadsheet. • Recording changes. • Add, Edit and Format the comments. • Reviewing Changes – View, Accept or Reject Changes • Merging and comparing. 	<ul style="list-style-type: none"> • Set Up a Spreadsheet for Sharing: Configure a spreadsheet to enable sharing with others. • Open and Save a Shared Spreadsheet: Access and save changes to a spreadsheet that has been shared with you. • Record Changes: Track modifications made to the spreadsheet. • Add, Edit, and Format Comments: Insert, modify, and format comments within the spreadsheet. • Review Changes: View, accept, or reject changes made by others in the shared spreadsheet. • Merge and Compare Sheets: Combine and compare different sheets to integrate data effectively. 	<p>CREATIVITY, OBSERVATION & CLASSIFICATION</p>
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Unit 3: Database Management System using LibreOffice Base

MONTH	THEORY	LEARNING OUTCOMES	KEY CONCEPTS	ACTIVITIES/PRACTICALS/ SKILL AREA DEVELOPMENT	CVP Integrated values
AUGUST(21)	Chapter 8: Introduction to Database Management System	Understand data and information concepts, the advantages of databases, various data models and key terminology and objects of relational database systems.	<ul style="list-style-type: none"> • Data and Information • Databases and DBMS • Advantages of database, • Data Models <ul style="list-style-type: none"> ➢ Hierarchical Data Model ➢ Network Data Model ➢ Relational Data Model • Relational database Model <ul style="list-style-type: none"> ➢ RDBS Terminology ➢ Objects of an RDBMS 	<ul style="list-style-type: none"> • Identify Data and Information: Distinguish between data and information within a database context. • Identify Fields, Records, and Tables: Recognize and describe fields, records, and tables in a database. • Prepare a Sample Table: Create a sample table with standard fields to illustrate database structure. • Identify Different Types of Data Models: Identify and describe various data models such as hierarchical, network, and relational. • Different Types of Keys: Recognize and explain different types of keys used in databases, such as primary and foreign keys. • Identify Different Objects of RDBMS: Identify and describe different objects in a relational database management system (RDBMS), including tables, queries, and forms. 	<ul style="list-style-type: none"> • CREATIVITY, OBSERVATION & CLASSIFICATION • CREATIVITY, OBSERVATION & CLASSIFICATION

<p>Chapter 9: Starting with LibreOffice Base</p>	<p>Learn to navigate LibreOffice Base, manage data types, create and save tables using various methods, set primary keys, and perform data entry, editing, sorting, and record deletion.</p>	<ul style="list-style-type: none"> • Introduction to LibreOffice Base • Data types • Starting with LibreOffice • User Interface Of LibreOffice Base • Opening a Database • Creating a Table <ul style="list-style-type: none"> ➤ Using a Wizard ➤ Using design view, • Setting primary key • Saving a Table 	<ul style="list-style-type: none"> • Start LibreOffice Base and Observe the Main Window: Launch LibreOffice Base and familiarize yourself with the main window's components. • Create a Sample Table Using Wizard: Use the wizard to create a sample table in any category. • Create Different Tables from Available List: Practice creating various tables by selecting fields from the available options. • Assign Data Types and Set Primary Key: Define data types for fields and set a primary key for the table. • Edit the Table in Design View: Modify the table structure using the design view. • Enter Data in the Fields: Input 	<ul style="list-style-type: none"> •
		<ul style="list-style-type: none"> • Entering data into table • Navigating through the table • Editing Data • Deleting Records from Table • Sorting Data in the Table 	<ul style="list-style-type: none"> • data into the fields of your table. • Delete Records from Table: Remove records from the table as needed. • Arrange Data in Ascending or Descending Order: Sort the table data in ascending or descending order 	<p>CREATIVITY, OBSERVATION & IMAGINATION</p>

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

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

Unit 4: Maintain Healthy, Safe and Secure Working Environment

MONTH	THEORY	LEARNING OUTCOMES	KEY CONCEPTS	ACTIVITIES/PRACTICALS/SKILL AREA DEVELOPMENT	CVP Integrated values
SEPTEMBER(18)	Chapter 13. Health, Safety and Security at Workplace	Understand workplace health, safety, and security policies, identify various hazards, and learn how to manage risks and maintain a safe working environment.	<ul style="list-style-type: none"> • Introduction to Health, Safety, and Security At Workplace • Policies and Procedures for Healthy, Safety and Security • Reasons for Health, Safety, and Security Programs or Policies in the Workplace • Workplace Safety Hazards • Physical Hazards • Falling Off Heights, Slipping and Tripping • Electrical Hazards • Fire Hazards • Health Hazards 	<ul style="list-style-type: none"> • Practice Safety Rules: Implement fire safety measures, prevent falls and slips, ensure electrical safety, and apply first aid procedures to protect workers and prevent accidents. 	<ul style="list-style-type: none"> • CREATIVITY, OBSERVATION & CLASSIFICATION
			<ul style="list-style-type: none"> • Potential Sources of Hazards in an Organisation • Hazards using Computers • Handling Office Equipment • Handling Objects • Stress at Work • Working Environment • Hazard Control • Safety Guidelines Checklist 		CREATIVITY, OBSERVATION & CLASSIFICATION

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

Objects

Handling Accidents:

Attend to the Injured Person

Immediately,

Inform your Supervisor

Assist your Supervisor

Types of Emergencies

First Aid,

Electrical Safety

Evacuation

General Evacuation

Procedures

Fire Hazards in the Workplace

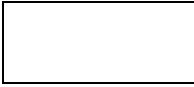
Fire Prevention

Identification of Material and

Ignition Sources

First Aid for Electrical

Emergencies



Electrical Rescue Techniques



CHINMAYA VIDYALAYA – PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS:XI

Subject: Computer Science

Resource material/text: PREETHI ARORA

No: of units/chapters:3/20

Month / No:of working days / No:of periods	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No:ofp rds allotte d /Chapt er	No:of period as per CBSE
June (22)	COMPUTER SYSTEM Geography-Industries	Basic computer organization, Mobile system organization, Types of Software, Memory units, Compiler and Interpreter. Operating System- need, functions of OS, user interface.	AI & EL: Prepare PPT on the topic “Mobile system organization”. TI: Tata Edge	Students develop a basic understanding of computer systems - architecture,OS, mobile and cloud computing.	Universal outlook ➤ Citizens of the world Intellectual development ➤ Classification	6	20
June (22)	ENCODING SCHEMES AND NUMBER SYSTEM Mathematics - Number System, Sets	Number System: numbers in base 2, 8, 16 and binary addition. Encoding Schemes : ASCII, ISCII and Unicode	EL: Problems to convert from one number system to another AI: Problems involving addition of binary numbers. TI : Tata Edge	Students learn to convert from one number system into another, addition of binary numbers and encoding systems like ASCII, ISCII and UNICODE.	Intellectual development ➤ Classification ➤ Analytical ability ➤ Comparison	5	

July (24)	<p>BOOLEAN LOGIC</p> <p>Physics-Circuits</p>	<p>Boolean logic: NOT, AND, OR, NAND, NOR, XOR, NOT, truth tables and De Morgan's laws, Logic circuits</p>	<p>AI :State De Morgan's theorem using Truth table.</p> <p>EL :Draw circuits using logic gates.</p> <p>TI: Tata Edge</p>	<p>Students learn to apply Boolean algebra through Logic Gates and truth tables.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Classification ➤ Analytical ability ➤ Comparison 	9
	<p>INTRODUCTION TO PROBLEM SOLVING</p> <p>Mathematics –Steps to solve a problem</p>	<p>Introduction to Problem solving: Problem solving cycle - Analysing a problem,designing algorithms and representation of algorithm using flowchart and pseudo-code.</p>	<p>AI :Draw a flowchart to calculate the factorial of a number</p> <p>EL:Write an algorithm to find the greatest among two different numbers entered by the user.</p> <p>TI : Tata Edge</p>	<p>Ability to appreciate the notion of an algorithm and apply its structure including how algorithms handle corner cases.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Comparison ➤ Classification 	10
	<p>GETTING STARTED WITHPYTHON</p> <p>Mathematics-Knowing numbers, Integers, fractions</p>	<p>Features of Python, Python Character Set, Identifiers, Keywords, Literals, Delimiters, Operators, Comments, Variable, data types, operators & types, accepting input from the console, assignment statement, expressions, operators and their</p>	<p>AI :Create Tag cloud</p> <p>EL :Identify the invalid invalid identifiers. State the output of given code. Categorize errors.</p> <p>TI :Develop programs to calculate Simple</p>	<p>Ability to understand the notion of data types and data structures and Apply in different situations.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Comparison ➤ Classification ➤ Imagination ➤ Observation ➤ Abstract Thinking 	9

<p>August (21)</p>	<p>FLOW OF CONTROL Mathematics - Knowing numbers</p>	<p>precedence, Execution of a program, types of errors. Conditional statements: if, if-else, if-elif-else Program flow with conditions</p>	<p>Interest/ to accept 2 no's and perform arithmetic operations/ to swap two variables. Tata Edge AI : Draw Flowcharts for if statement EL / TI : Program to find odd or even , Program to find the number as positive or negative</p>	<p>Ability to understand and apply basic computational thinking and apply the different programming constructs.</p>	<p>Intellectual development ➤ Observation ➤ Abstract Thinking</p>	<p>10</p>	
<p>September (18)</p>	<p>FLOW OF CONTROL Mathematics - Knowing numbers</p>	<p>Notion of iterative computation and control flow: for(range(),len()), while</p>	<p>AI : Draw Flowcharts for if statement ,For loop and while loop EL / TI : Develop programs to sort 3 numbers/ divisibility of a number/ factorial of a number/Fibonacci series/ to find the grade of a student based on percentage</p>	<p>Ability to understand and apply basic computational thinking and apply the different programming constructs.</p>	<p>Intellectual development ➤ Observation ➤ Abstract Thinking ➤ Classification</p>	<p>11</p>	
<p>September (18)</p>	<p>STRINGS English - Palindrome</p>	<p>Strings: Traversal, operations – concatenation, repetition, membership; functions/methods and String slicing.</p>	<p>AI : Illustrate Memory representation of String with help of diagram. EL/TI : Write programs to perform</p>	<p>Ability to solve programs using strings and string functions</p>	<p>Intellectual development ➤ Imagination ➤ Creativity ➤ Classification</p>	<p>12</p>	

<p>October (22) & November (23)</p>	<p>REVISION</p> <p>LISTS Chemistry(Sci) -Metals and non metals.</p>	<p>Lists: Definition, Creation of a list, Traversal of a list. Operations on a list - concatenation, repetition, membership; functions/methods List Slicing; Nested lists; finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and count the frequency of elements in a list.</p>	<p>various operations on strings.</p> <p>Tata Edge AI : Prepare infography for List functions. EI/TI : Develop programs to read a list of n integers and find their median/ to find the number of times an element occurs in the list/to read a list of elements. Input an element from the user that has to be inserted in the list. Also input the position at which it is to be inserted.</p>	<p>Ability to understand and apply the concepts of list while solving programs.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Imagination ➤ Creativity ➤ Classification ➤ Organization 	<p>10</p>	
<p>November & December (20)</p>	<p>TUPLES AND DICTIONARIES Mathematics - Sets</p>	<p>Definition, Creation of a Tuple, Traversal of a tuple. Operations on a tuple - concatenation, repetition, membership; functions/methods, Nested tuple; Tuple slicing.</p> <p>Definition, Creation, Accessing elements of a dictionary, add an item, modify an item in a</p>	<p>AI : Create Tag Cloud Topic : Tuple functions and Dictionary Functions</p> <p>EL/TI : Write programs to find the minimum, maximum, mean of values stored in a Tuple /perform linear search on a tuple of numbers/ count the frequency of</p>	<p>Ability to learn the concept of immutable sequence type tuple & its manipulation.</p> <p>Ability to learn the concept of sequence type dictionaries & its manipulation.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Comparison ➤ Classification ➤ Organization ➤ Imagination & Creativity 	<p>10</p>	<p>140</p>

		dictionary; Traversal, functions/methods programs :	elements in a tuple /count the number of times a character appears in a given string using a dictionary/ create a dictionary with names of employees, their salary and access them. Tata Class Edge				
December (20)	INTRODUCTION TO PYTHON MODULES Mathematics-Exponents and powers, Statistics	*Importing math, random and statistics modules	AI : Create a concept for different Python modules EL/TI : Write programs using Python modules/ guess a random number between 1 and 10. Tata Clas	Students understand the use of Python modules	Intellectual development ➤ Comparison ➤ Classification ➤ Organization	9	
January (22)	SOCIETAL IMPACT Subject : Geography Chapter Name: Industries	Digital Footprints – Etiquettes, Data protection- Intellectual property rights, violation of IPR, Licensing, open source, Cybercrimes, Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, cyber trolls and bullying Privacy laws, fraud; cyber forensics, IT Act, 2000. Technology and society:	AI : Prepare chart on the best practices used to ensure confidentiality of information EL & TI : Prepare PPT on the usage rules of social networking sites Tata Class Edge	Students become aware of the possible risks in social networks and the safety measures to avoid them. Students understand the possible threats with online access	Intellectual development ➤ Observation ➤ Abstract Thinking	20	20

	REVISION and Project (Investigatory Project)	E-waste management Identity theft, unique ids and biometrics. Gender and disability issues while teaching and using computers. REVISION through class test or solving questions from previous board papers		and the measures to prevent them. Recollect the topics studied and implement by developing small applications like calculator, game etc			
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Total Hours as per CBSE

Unit	Chapters	No. of Periods
Computer Systems and Organisation	<ol style="list-style-type: none"> 1. Basic Computer organization 2. Encoding Schemes 3. Boolean Logic 	20
Computational Thinking and Programming -1	<ol style="list-style-type: none"> 1. Introduction to problem solving 2. Basics of python programming 3. Flow statements 4. List 5. String 6. Tuples 7. Dictionary 8. Functions Methods 	140

Society, Law, and Ethics	<ol style="list-style-type: none">1. Digital Society and Netizen2. Data Protection3. Cyber Crime and safety4. E-waste management5. Technology and Society	20
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CHINMAYA VIDYALAYA – PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS:XII **Subject:** Computer Science **Resource material/text:** PREETHI ARORA **No: of**

Units/Chapters:3/19

Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	No. of Periods as per CBSE
June 21/18	COMPUTER NETWORKS Ray Optics - Physics	Evolution of network, Structure of a network, Types of networks, wired and wireless networks; Network devices, Network topologies, network protocols, mobile communication technologies, Email protocols, Network security concepts, introduction to web services	AI & EL&TI: Create Power point/Video Presentation group wise, on topic- Basics of network Create Tag cloud of Security Aspects	Ability to understand Computer networks: network, types, network devices, , basic protocols, web services	Intellectual development ❖ Organization ❖ Classification ❖ Specialization ❖ Comparison	8	15
	FUNCTIONS Factorial of numbers - Mathematics	Scope, parameter passing, mutable/immutable properties of data objects, pass arrays to functions, return values, functions using libraries: mathematical and string	AI: Drawing flow charts using apt symbols to design the programs whatever they are doing. EI: Implementation of functions in Python programs TI: Usage of Python/Google COLAB	Apply the concept of functions.	Intellectual development ❖ Classification ❖ Organization	10	

		functions , Exception Handling					
Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	
July 24/18	DATA FILE HANDLING Technical Terms - English	Need for a file, Types of file, basic operations of text file- open and close a file, read, write, and append to a file, standard input, output, and error streams, relative and absolute paths. basic operations on binary file - open, close, read, write, append and update– pickle module import csv module – open, close, read, write- csv.reader() & csv.writerow()	AI: Drawing flow charts using apt symbols to design the programs whatever they are doing. EL & TI : Develop programs in Python for the following : Read a file line by line and print it. Remove all the lines that contain the character `a' in a file and write it to another file. Find the output of a given code. Find the syntax errors from the given code and rewrite the corrected code.	.Ability to understand different types of files Apply the concept of file handling. Comparison Remove all the lines that contain the character `a' in a file and write it to another file. Find the output of a given code. Find the syntax errors from the given code and rewrite the corrected code	❖ Intellectual development ❖ Organization	18	

Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	
August 20/16	DATA STRUCTURES IN PYTHON	Data-structures: lists, stacks - Push, Pop using a list.	<p>AI: Observe nature and take photos of the data structures that you see in daily life</p> <p>EL & TI: Develop Python programs to implement stack using a list data-structure.</p>	Ability to use data structure stacks	Intellectual development	10	120
	<p>Forming line while moving around – Physical Education</p> <p>DATABASE CONCEPTS</p> <p>Periodic Tables - Chemistry</p>	<p>Introduction to database concepts and its need.</p> <p>Relational data model: Concept of domain, relation, tuple, attribute, degree, cardinality, key, primary key, candidate key, alternate key and foreign key.</p>	<p>AI: Create TagCloud about Database terms.</p> <p>EL :An organisation wants to create a database EMP to maintain details about its employees .Name the attributes of EMPLOYEE, which can be used as candidate keys.</p> <p>Name the tables and the key which are required to retrieve this detail.</p> <p>TI : TataClassEdge software</p>	<p>Compare data structures: lists and stacks.</p> <p>Ability to understand database concepts and its related terms.</p> <p>Ability to identify the different types of keys</p>	<p>❖ Classification</p> <p>❖ Organization</p> <p>❖ Creativity</p> <p>❖ Comparison</p> <p>Intellectual development</p> <p>❖ Organization</p> <p>❖ Classification</p> <p>❖ Comparison</p>	6	

Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	No,of Periods as per CBSE
September 17/10	STRUCTURED QUERY LANGUAGE Sets, Statistics – Mathematics	Advantages of using SQL, DDLand DML Data Types SQL commands - CREATE, INSERT, UPDATE, DELETE, SELECT, Functions in SQL, GROUP BY, Joins	AI: Create a Concept map for SQL commands EL & TI: Create a database Sports. Create a table “TEAM” with following considerations: i) It should have a column TeamID for storing an integer value between 1 to 9, which refers to unique identification of a team. ii) Each TeamID should have its associated name (TeamName), which should be a string of length not less than 10 characters. iii) Insert records to the table. iv) Manipulate records	Retrieve and manipulate data in RDBMS using Structured Query Language	Intellectual development ❖ Organization ❖ Classification Comparison	10	45
Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	

<p>October 22/16</p>	<p>INTERFACE PYTHON WITH SQL</p> <p>Technical Terms - English</p> <p>REVISION</p>	<p>Interface of Python with an SQL database - Connecting SQL with Python - Creating Database connectivity Applications - Performing Insert, Update, Delete queries - Display data by using fetchone(),fetchall(),ro wcount, Format()</p>	<p>AI : Collect data needed for creating a database named School to create a table named Student.</p> <p>EL & TI : Develop programs by connecting Python with MySQL.</p>	<p>Ability to use connectivity between Python and SQL.</p>	<p>Intellectual development ❖ Comparison ❖ Classification ❖ Organization</p> <p>Intellectual Development Assessment</p>	<p>8</p>
<p>November 21/16</p>	<p>Practical File work Project work</p>	<p>Prepare Practical File Implementation of the concepts studied in the course</p>	<p>AI&EL&TI : Conversion of Python programs and SQL commands to document files. Create investigatory group projects as mentioned in the CBSE Syllabus using Python</p>	<p>Team work</p>	<p>Intellectual development ❖ Organization ❖ Creativity ❖ Observation</p>	<p>16</p>
<p>December & January</p>	<p>Pre-board Examination AISSCE Practicals</p>				<p>Intellectual Development ❖ Assessment</p>	

Total Hours as per CBSE

Unit	Chapters	No. of Periods
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Computational Thinking and Programming – 2	4. Review of Python 5. Functions 6. Data File Handling 7. Data Structure in python	120
Computer Networks	9. Evolution of Network 10. Data Communication 11. Network devices 12. Web Services	15
Database Management	6. Database Concepts 7. Structured Query Language 8. Interface with python	45

CHINMAYA VIDYALAYA – PALAKKAD CLUSTER

CURRICULUM PLAN 2025-26

CLASS: XI
chapters: 8

Subject: Informatics Practices

Resource material/text: PREETHI ARORA & NCERT

No: of

Month / No: of working days	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No:of prds allotted /Chapter	No.Of periods as per CBSE
June (22)	COMPUTER SYSTEM Geography-Industries	Basic computer organization, Mobile system organization, Types of Software, Memory units, Compiler and Interpreter. Operating System- need, functions of	AI & EL: Prepare PPT on the topic "Mobile system organization". TI : Tata Edge	Students develop a basic understanding of computer systems - architectures, mobile and cloud computing.	Universal outlook ➤ Citizens of the world Intellectual development ➤ Classification	10	1

		OS, user interface.					
July (24)	INTRODUCTI ON TO PYTHON Mathematics- Knowing numbers, Integers, fractions	Features of Python, Python Character Set, Identifiers, Keywords, Literals, Delimiters, Operators, Comments, Variable, data types, operators & types, accepting input from the console, assignment statement, expressions, operators and their precedence, Execution of a program, types of errors	AI :Create Tag cloud EL :Identify the invalid identifiers. State the output of given code. Categorize errors. TI :Develop programs to calculate Simple Interest/ to accept 2 no's and perform arithmetic operations/ Tata Edge	Ability to understand the notion of data types and data structures and Apply in different situations.	Intellectual development ➤ Comparison ➤ Classification ➤ Imagination ➤ Observation ➤ Abstract Thinking	13	

Month / No: of workingdays	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No:of prds allotted /Chapter	No.Of periods as per CBSE
August (21)	FLOW OF CONTROL Mathematics - Knowing numbers	Conditional statements: if, if-else, if-elif-else Program flowwith conditions Notion of iterative computation and control flow: for(range(),len()), while	AI : Draw Flowchartsfor if statement EL / TI : Program to find odd or even , Program to find the number as positive or negative programs to sort 3 numbers/ divisibility of a number/ factorial of a number/Fibonacci series Tata Edge	Ability to understand and apply basic computational thinkingand apply the differentprogramming constructs	Intellectual development ➤ Observation ➤ Abstract Thinking ➤ Classification	10 5	

<p>September (18)</p>	<p>LISTS Chemistry(Sci) - Metals and non metals</p>	<p>Lists: Definition, Creation of a list, Traversal of a list. Operations on a list - concatenation, repetition, membership; functions/methods List Slicing; Nested lists; finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and count the frequency of elements in a list.</p>	<p>AI : Prepare infographic for List functions. E/IT : Develop programs to read a list of n integers and find their median/ to find the number of times an element occurs in the list/to read a list of elements. Input an element from the user that has to be inserted in the list.</p>	<p>Ability to understand and apply the concepts of list while solving programs.</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ➤ Imagination ➤ Creativity ➤ Classification ➤ Organization 	<p>15</p>	
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Month / No: of workingdays	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No:of periods allotted /Chapter	No. Of periods as per CBSE
October(22)	DICTIONARIES Mathematics – Sets	Definition, Creation, Accessing elements of a dictionary, add an item, modify an item in a dictionary; Traversal, functions/methods programs	AI : Create Tag Cloud Topic : Tuple functions and Dictionary Functions EL/TI : Write programs to find the minimum, maximum, mean of values stored in a Tuple /perform linear search on a tuple of numbers/count the frequency of elements in a tuple /count the number of times a character appears in a given string using a dictionary/ create a dictionary with names of employees, their salary and access them Tata Class Edge	Ability to learn the concept of immutable sequence type tuple & its manipulation. Ability to learn the concept of sequence type dictionaries & its manipulation	Intellectual development ➤ Comparison ➤ Classification ➤ Organization ➤ Imagination & Creativity	15	
	REVISION					5	63

Month / No: of working days	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No:o fprds allot ted /Chapter	No. Of peri ods as per CBSE
November (23)	DATAB ASE CONC EPTS Periodic Tables - Chemistry	Introduction to database concepts and its need. Relational data model: Concept of domain, relation, tuple, attribute, degree, cardinality, key, primary key, candidate key, alternate key and foreign key.	AI: Create TagCloud about Database terms. EL: An organisation wants to create a database EMP to maintain details about its employees. Name the attributes of EMPLOYEE, which can be used as candidate keys. Name the tables and the key which are required to retrieve this detail. TI: Tata Class Edge software	Ability to understand database concepts and its related terms. Ability to identify the different types of keys	Intellectual development ❖ Organization ❖ Classification ❖ Comparison	20	

Month / No: of working days	Unit/Chapter/Sub Theme	Key Concept	Activities/ Practicals/ Tech. integration/Art Integration/ Experiential Learning	Learning Outcomes	CVP Integrated values	No: of periods allotted /Chapter	No. Of periods as per CBSE
December(20)	STRUCTURE D QUERY LANGUAGE Sets, Statistics – Mathematics	Advantages of using SQL, DDL and DML Data Types SQL commands - CREATE, INSERT, UPDATE, DELETE, SELECT, Functions in SQL, ORDER BY	AI: Create a Concept map for SQL commands EL & TI: Create a database Sports. Create a table "TEAM" with following considerations: It should have a column TeamID for storing an integer value between 1 to 9, which refers to unique identification of a team. Manipulate using order by	Retrieve and manipulate data in RDBMS using Structured Query Language	Intellectual development ❖ Organization ❖ Classification Comparison	15	40
January(22)	EMERGING TRENDS REVISION and Project (Investigatory Project)	Artificial Intelligence (AI), Machine learning, Big Data, Internet of Things (IoT), Cloud Computing and cloud services, Blockchains REVISION through class test or solving questions from previous board	EL: Collect the names of a few data centers in India along with the major services that they provide. TI: Tata Edge	Students realize the huge impact (in the future) on digital economy and interaction in digital societies Recollect the topics studied and implement by developing small applications like	Intellectual development ➤ Observation ➤ Comparison ➤ Classification	10	7

		papers		calculator, game etc.			
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CHINMAYA VIDYALAYA – PALAKKAD

CLUSTER CURRICULUM PLAN 2025-

26

CLASS: XII
chapters: 7

Subject: Informatics Practices

Resource material/text: PREETHI ARORA

No: of

Month /No:of working days	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	No of periods as per CBSE
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<p>June (22)</p>	<p>DATAHANDLING USING PANDAS</p> <p>Factorial of numbers - MathematicsPhysics</p>	<p>Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and data frames. Series: Creation of series from dictionary, scalar value; mathematical operations; series attributes, head and tail functions; selection, indexing and slicing. Data Frames: creation of data frames from dictionary of series, list of dictionaries, text/CSV files, display, iteration.</p>	<p>AI & EL&TI: Create Power point/Video Presentation group wise, on topic- Basics of data</p>	<p>Ability to understand Data representation in various departments</p>	<p>Intellectual development</p> <ul style="list-style-type: none"> ❖ Organization ❖ Classification ❖ Specialization ❖ Comparison 	<p>12</p>	
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Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech. integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	No of periods as per CBSE
July (24)	DATAHANDLING USING PANDAS Technical Terms –Maths hysics	Operations on rows and columns: add (insert /append) , select, delete (drop column and row), rename, Head and Tail functions, indexing using labels, Boolean indexing.	AI: Drawing flow charts using apt symbols to design the programs whatever they are doing. EL & TI : Develop programs in Python for the following : Create Mark series	Ability to understand the data analysis by comparing various datas	❖ Intellectual development ❖ Organization	14	50
August (21)	DATA VISUALISATION Forming line while moving around – Physical Education STRUCTURED QUERY LANGUAGE Sets, Statistics	Data Visualization : Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). Customizing plots:; adding label, title, and legend in plots. Revision of Database concepts, Math functions: POWER (), ROUND (), MOD ()	AI: Observe ECG RECORDS EL & TI: Develop Python programs to implement student analysis in various subjects TI : TataClassEdge software	Ability to use data structure Compare data structures: with graphs	Intellectual development ❖ Classification ❖ Organization ❖ Creativity ❖ Comparison	12 6	

	- Mathematics						
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Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech.integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Period s allotte d	No of period s as per CBSE
Septemb er(18)	STRUCTURED QUERY LANGUAGE Sets, Statistics – Mathematics	. • Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR(), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). • Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). • Querying and manipulating data using Group by, Having, Order by	AI: Create a Concept map for SQL commands EL & TI: Create a database Sports. Create a table “TEAM” with following considerations: i) It should have a column TeamID for storing an integer value between 1 to 9, which refers to unique identification of a team. ii) Each TeamID should have its associated name (TeamName), which should be a string of length not less than 10 characters. iii) Insert records	Retrieve and manipulate data in RDBMS using Structured Quer y Language functions	Intell ectua l devel opme nt ❖ Organizati on ❖ Classi ficatio n Comp ariso n	17	37

			iv) tothe table. Query records				
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Month /No:of working days/ No:of periods	Unit/chapter/ Subtheme	Key Concept	Activities/ Practicals/ Tech.integration / Art Integration/ Experiential Learning	Learning outcomes	CVP Integrated values	No:of Periods allotted	No of periods as per CBSE
October (22)	COMPUTER NETWORKS Ray Optics - Physics	Evolution of network, Structure of a network, Types of networks, wired and wireless networks; Network devices, Network topologies, network protocols, mobile communication technologies, Email protocols, Network securityconcepts, introduction to web services	AI & EL&TI: Create Power point/Video Presentation group wise,on topic- Basics of network Create Tag cloud ofSecurity Aspects	Ability to understand Computer networks: network, ty pes, network devices, , basic protocols, web services	Intellectual development ❖ Comparison ❖ Classification ❖ Organization	8	14
	REVISION					8	
	SOCIETAL IMPACT Subject : Geography Chapter Name: Industries	Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.E-waste: hazards and management.	AI : Prepare chart on the best practices used to ensure confidentiality of information	Students become aware of the possible risks in social networks and the safety measures to avoid them.	Intellectual development ➤ Observation ➤ Abstract Thinking	5	
December & January	Practical File work Project work Pre-board	Prepare Practical File Implementation of the concepts studied in the course	AI&EL&TI : Conversion of Python programs and SQL commands to document files.Create investigatory groupprojects as mentioned in the CBSE Syllabus using Python CSV	Team work	Intellectual Development ❖ Assessment		

	Examination AISSE Practical						
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