

Council of Higher Secondary Education, Odisha  
Syllabus for IT/ITES  
(Job Role: **CRM Domestic Voice**)

Class-XI

**Paper-I**

SCHEME OF UNITS

Part	Units	No of hours for Theory and Practical	No of marks for Theory and Practical
<b>Part-A</b>	<b>Employability Skills</b>		
	Unit 1: Communication Skills	12Hrs 45min	2
	Unit 2: Self-management Skills	12Hrs	2
	Unit 3: Basic ICT Skills	21Hrs 45min	3
	Unit 4: Entrepreneurial Skills	9Hrs	1
	Unit 5: Green Skills	12Hrs	2
<b>Total</b>		<b>67Hrs 30min</b>	<b>10</b>
<b>Part-B</b>	<b>Vocational Skills</b>		
	Unit 1: Introduction IT/ITES Industry	7Hrs 30min	6
	Unit 2: Training of CRM Domestic Voice	8Hrs 15min	6
	Unit 3: Make Outbound Calls: Interaction With Customer	13Hrs 30min	7
	Unit 4: CRM application: Free CRM	12Hrs	7
	Unit 5: Work Management	13Hrs 30min	7
	Unit 6: Workplace Safety & Hazards	12Hrs 45min	7
<b>Total</b>		<b>67Hrs 30min</b>	<b>40</b>

Part A: Employability Skills

<b>Unit-1</b> <b>Communication Skills</b>		{8Theory+3Practical=17Periods} 1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<p><b>1. <u>Methods of communication</u></b>                      Verbal                      Non-verbal                      Visual</p> <p><b>2. <u>Communication styles</u></b>                      Assertive Communication                      Passive Communication                      Aggressive Communication                      Passive-                      Aggressive                      Communication                      Nonverbal Communication                      Collaborative Communication                      Authoritative Communication                      Persuasive Communication                      Empathetic Communication                      Formal vs.                      Informal                      Communication</p> <p><b>3. <u>Writing skills</u></b>                      Sentence                      Phrase                      Kinds of Sentences                      Parts of Sentence                      Parts of Speech                      Articles                      Construction of a Paragraph</p>	<b>8</b>	<p>Writing pros and cons of written, verbal and non- verbal communication                      Listing do's and don'ts for avoiding common body language mistakes</p> <p>Observing and sharing communication styles of friends, teachers and family members and adapting the best practices                      Role-plays on communication styles</p> <p><b>Demonstration and practice of writing sentences and paragraphs on topics related to the subject</b></p>	<b>3</b>
<b>Unit-2</b> <b>Self-management Skills</b>		{7 Theory + 3 Practical=16Periods} 1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<p><b>1. The importance of self- management</b>                      Dressing appropriately                      Looking decent and positive body language.                      What is grooming, and prepare a personal grooming checklist.                      The techniques of self- exploration.</p>	<b>7</b>	<p>Demonstration of impressive appearance and groomed personality. Demonstration of the ability to self- explore.</p>	<b>3</b>

<p>2. Important factors Influence in team building Influencing teamwork.</p> <p>3. Meaning and importance of time management Setting and prioritizing goals Creating a schedule Making lists of tasks Balancing work and leisure Using different optimization tools to break large tasks into smaller tasks</p>		<p>Group discussion on qualities of a good team. Group discussion on strategies that are adopted for team building and team work</p> <p>Game on time management. Checklist preparation. To-do-list preparation.</p>	
<p><b>Unit 3</b> { 11 Theory + 6 Practical = 29 Periods }</p> <p><b>Basic ICT Skills</b> 1 Period = 45 minutes / 1 Practical = 3 periods</p>			
<b>Theory</b>		<b>Practical</b>	

<p>1. Introduction to ICT Role and importance of ICT in personal life and at workplace ICT in our daily life (examples) ICT tools – Mobile, tab, radio, TV, email, etc.</p> <p>2. Basic components of computer system.</p> <ul style="list-style-type: none"> <li>. Hardware and software.</li> <li>. Primary and secondary memory.</li> <li>. Input, Output and Storage devices</li> <li>. Various peripheral devices and their use.</li> <li>. Examples of peripherals</li> </ul> <p>3. Perform basic computer operations</p> <p>Procedure for starting and shutting down a computer.</p> <p>Operating Systems (OS). Types of OS – DOS, Windows, Linux.</p> <p>Desktop of Windows and Linux.</p> <p>Files and folder.</p> <p>Keyboard and mouse operations.</p> <p>Common desktop operations.</p> <p>4. Internet and its applications</p> <p>4.1. Introduction to Internet.</p>	<p><b>11</b></p>	<p>Discussion on the role and importance of ICT in personal life and at workplace. Preparing posters / collages for showing the role of ICT at workplace.</p> <p>Identify and name the various components of computer. List few hardware &amp; software. Identify and name the primary and secondary memory. Identify the various Input, Output and Storage devices.</p> <p>Start the computer in proper sequence and get OS screen. Identify the installed OS on computer. Identify the desktop and its various components. Work with desktop. Create file and folder. Perform keyboard and mouse operations.</p> <p>Introduce with Internet. Explain the applications of Internet. List the various Internet Browser.</p>	<p><b>6</b></p>
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<p>Applications of Internet. Internet Browser. Websites and webpages. Email applications. Email accounts. Sending and receiving email. Introduction to social media. Blog. Twitter.</p> <p>Facebook. You tube. WhatsApp. Digital India.</p>		<p>Search the websites. Create Email account. Send and receive email. Use Social Media in education. Use Blog. Use Twitter. Use Facebook. Use You-tube. Use WhatsApp. Use Digital India.</p>	
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Unit 4 (6 Theory + 2 Practical=12 Periods)  
Entrepreneurial Skills 1 Period=45 minutes / 1 Practical= 3 periods

<b>Theory</b>		<b>Practical</b>	
<p>1. Significance of entrepreneurial values and attitude</p> <p>Values in general and entrepreneurial values.</p> <p>Entrepreneurial value orientation with respect to</p> <p>Innovativeness, independence, outstanding performance and respect for work</p> <p>2. knowledge of attitudinal changes required to become an entrepreneur</p> <p>Attitudes in general and entrepreneurial attitudes</p> <p>Using imagination/intuition</p> <p>Tendency to take moderate risk</p> <p>Enjoying freedom of expression and action</p> <p>Looking for economic opportunities</p> <p>Believing that we can change the environment</p> <p>Analyzing situation and planning action involving in activity.</p>	<b>6</b>	<p>Listing of entrepreneurial values by the students. Group work on identification of entrepreneurial values and their roles after listing or reading 2-3 stories of successful entrepreneur. Exhibiting entrepreneurial values in Ice breaking, rapport building, group work and home assignments.</p> <p>Preparing a list of factors that influence attitude in general and entrepreneurial attitude.</p> <p>Demonstrating and identifying own entrepreneurial attitudes during the following micro lab activities like thematic appreciation test.</p> <p>Preparing a short write-up on “who am I”.</p> <p>Take up a product and suggest how its features can be improved.</p> <p>Group activity for suggesting brand names, names of enterprises, etc.</p>	<b>2</b>

Unit 5 Green Skills		{7 Theory + 3 Practical=16Periods} 1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<p>1. Importance of main sector of green economy Main sectors of green economy. E-waste management green transportation Renewal energy. Green construction. Water management. Policy initiatives for greening economy in India.</p> <p>2. Major green Sectors/ Areas and the role of various stakeholder in green economy Stakeholders in green economy. Role of government and private agencies in greening cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries.</p>	<b>7</b>	<p>Preparing a poster on any one of the sectors of green economy. Writing a two-page essay on important initiatives taken in India for promoting green economy.</p> <p>Preparing posters on green Sectors/Areas: cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries.</p>	<b>3</b>

## Part B: Vocational Skills

<b><u>Unit 1</u></b>		{4 Theory + 2Practical=10 Periods}																																	
<b>Introduction IT/TeS Industry</b>		1 Period=45 minutes / 1 Practical= 3 periods																																	
<b>Theory</b>		<b>Practical</b>																																	
<b>1. Introduction to IT/ITES</b>		<b>4</b>		<b>2</b>																															
<p>Growth of IT sector in India                      Classification of IT industry                      Employment Trends in IT                      Introducing Outsourcing                      Different Sectors in Outsourcing Jobs                      Introducing Business Process Outsourcing (BPO)                      Difference between Domestic and International BPO                      Discuss Inbound and Outbound Calls                      Define KPO, HRO, LPO</p>				<ul style="list-style-type: none"> <li>➤ Explain the need and importance of CRM Voice.</li> <li>➤ List the types of CRM Voice. Illustrate the process flow of CRM Voice.</li> <li>➤ Communicate with customer by the selected mode.</li> <li>➤ Verify the customer identity by using the per-registered data.</li> <li>➤ Arrange group discussion to satisfy the customer query.</li> <li>➤ Adopt professionalism and behavior in providing services to customer.</li> <li>➤ Keep the services updated to Serve better to the customer.</li> <li>➤ Provide appropriate solution and services to the customer.</li> </ul>																															
<b><u>Unit 2</u></b>		{2 Theory + 3 Practical=11 Periods}																																	
<b><u>Training Of CRM DomesticVoice</u></b>		1 Period=45 minutes / 1 Practical= 3 periods																																	
<b>Theo ry</b>		<b>Practic al</b>																																	
<b>1. Training Of CRM Domestic Voice</b>		<b>2</b>		<b>3</b>																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1.</td> <td style="width: 15%;">Expl ain</td> <td style="width: 15%;">Purp ose</td> <td style="width: 15%;">of</td> <td style="width: 15%;">t h e</td> <td style="width: 15%;">Train ing</td> </tr> <tr> <td colspan="6" style="text-align: center;">Program.</td> </tr> <tr> <td>1.</td> <td>Desc ribe</td> <td>Role</td> <td>a n d</td> <td></td> <td></td> </tr> <tr> <td colspan="6" style="text-align: center;">Responsibilities of a CRM Domestic Voice.</td> </tr> <tr> <td colspan="6" style="text-align: center;">1.3. Define Personal Attributes of a CRM Domestic Voice</td> </tr> </table>		1.	Expl ain	Purp ose	of	t h e	Train ing	Program.						1.	Desc ribe	Role	a n d			Responsibilities of a CRM Domestic Voice.						1.3. Define Personal Attributes of a CRM Domestic Voice								<ul style="list-style-type: none"> <li>➤ Demonstrate the training steps to insert a record in CRM system.</li> <li>➤ Have the group work in pairs and discuss each of the following:                             <ul style="list-style-type: none"> <li>• Products and services offered by the company.</li> <li>• Record complaints and Receive feedback.</li> </ul> </li> </ul>	
1.	Expl ain	Purp ose	of	t h e	Train ing																														
Program.																																			
1.	Desc ribe	Role	a n d																																
Responsibilities of a CRM Domestic Voice.																																			
1.3. Define Personal Attributes of a CRM Domestic Voice																																			

1.4. Explain required professional skills			
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<b>Unit 3</b>		{ 6 Theory + 4 Practical=18 Periods }	
Make Outbound Calls: Interaction With Customer		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<p>1. Make outbound calls &amp; interaction with customer.</p> <p>Interaction with customers. Define to make a good first impression Introducing yourself to peers and bosses Introducing yourself to customer – inbound calls Introducing yourself to customers – tele-selling calls. Introducing yourself to customers – collection calls need for meeting and greeting. Importance of meeting and greeting. Need for complimenting and commenting Giving and receiving Compliments and comments. Discuss call flow (routing) define information security Explain Call center metrics Explain provide great customer Describe telephone etiquette Explain qualities to be developed to make a tele-sale call. Challenges during a tele-sales call Introducing up-sell or cross-sell discuss customer’s sales record different type of call Define complaint.</p>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Introducing You in front of class.</li> <li>➤ Role-play of couple confused customer (not sure for their choice of movie DVD) and customer service representative.</li> <li>➤ See online video and practice for vocabulary of outbound call of communication Identifies the information security basic parameters</li> </ul>	<b>4</b>
<b>Unit 4</b>		{ 4Theory + 4 Practical=16Periods }	
CRM application: Free CRM		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<p>1. <b>Introduction CRM Application</b></p> <ul style="list-style-type: none"> <li>. Introducing CRM application</li> <li>. Steps for Login in Free CRM</li> <li>. Features of Free CRM</li> </ul>	<b>4</b>	<ul style="list-style-type: none"> <li>➤ List out the steps of to use Free CRM application</li> <li>➤ Generate or create an event using Free CRM</li> <li>➤ Create a company and its call</li> </ul>	<b>4</b>

<b>Unit 5</b> { 6 Theory + 4 Practical=18 Periods }			
<b>Work Management</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
1. Work Management Explain Work Requirement Discuss type of Voice Process like — Customers Service, Tele- Sales, Collections, Data Entry. Define Standard Organizational Policies Define Standard Organizational Procedures	6	➤ Make different group of students and perform as customer support representative and other perform as customer: Customers Service, Tele-Sales, Collections, Data Entry	4
<b>Unit 6</b> { 5 Theory + 4 Practical=17 Periods }			
<b>Workplace Safety &amp; Hazards</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<b>1. Workplace Safety &amp; Hazards</b> . Introducing Workplace Safety & Hazards . Prevention of disasters/risk events . Define Accidents and Emergencies . Define Workplace Safety Rules Discuss Handling Accidents . Types of Emergencies . Explain protect health and safety at work place.	5	➤ List out the prevention of disaster and risk. ➤ List out the type of emergencies.	4

Part A-90 Classes Part B-90 Classes

Total= 180 Classes

Syllabus for IT/ITES

Class-11

**Paper-II**

**Part A**

<b>Unit 1</b>		{ 2 Theory + 1 Practical=05 Periods }	
Introduction toIT		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practic al</b>	
<p><b>1</b> Introduction toIT</p> <p>Overview of IT and its significance in the modern world. Historical development of IT Ethical and legal considerations in IT Overview of IT and its significance Evolution of computing technology Digital literacy and responsible use of technology</p>	<b>2</b>	<ul style="list-style-type: none"> <li>➤ 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.</li> <li>➤ Provide students with a list of significant IT milestones (e.g., invention of the computer, development of the internet, introduction of smartphones).</li> <li>➤ Encourage students to research and add additional events or inventors relevant to the history of IT.</li> <li>➤ Provide a selection of old computer hardware components (e.g., vintage CPUs, keyboards, and monitors) or pictures of historical computer hardware.</li> </ul>	<b>1</b>
<b>Unit 2</b>		{ 6 Theory + 2 Practical=12 Periods }	
<b>Computer Languages</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practic al</b>	

<p><b>1. Computer Languages</b></p> <p>. Introduction to computer language: Machine language, Assembly language and High-level language.</p> <p>. 4GL translator, Compiler, Interpreter, Assembler, Characteristics of good programming language.</p> <p>. Number System : Positional and non-positional number system, Types of numbers, Conversion</p> <p>. (Binary, Octal, Decimal, Hexadecimal) Computer Codes (BCD, ASCII, EBCDIC), Sign magnitude</p> <p>. Computer Arithmetic (Binary addition, Subtraction, Multiplication and Division)</p> <p>. Algorithm and Flow Chart of programming.</p>	<p><b>6</b></p>	<ul style="list-style-type: none"> <li>➤ List out the languages of Computer.</li> <li>➤ List out the 4GL Translators.</li> <li>➤ Introduce all level programming languages.</li> <li>➤ Prepare a project on Algorithm and Flow Chart of programming on chart paper.</li> </ul>	<p><b>2</b></p>
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<b>Unit 3</b>		{ 6 Theory + 4 Practical=18 Periods }	
<b>Basic Trouble Shooting</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<p><b>1. Basic Trouble Shooting</b></p> <p>Identify the Problem            Understand the Context            Restart or Reboot            Check for Updates            Review Error Messages            Check Hardware Connections            Test in Safe Mode            Disable or Uninstall Recent Changes.            Scan for Malware and Viruses.            Clear Cache and Temporary Files            Check Disk Space            Run Diagnostic Tools            Restore to a Previous State            Seek Online Resources</p>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Demonstrate Boot Failure trouble shooting.</li> <li>➤ Provide a set of peripherals (e.g., keyboard, mouse, and monitor) and a computer. Ask students to diagnose the problem and reconnect or configure the peripheral correctly.</li> <li>➤ Set up a simple network with routers, switches, and computers and discuss the trouble shooting.</li> <li>➤ Discuss with the Students about error messages and logs. Guide them through uninstalling, reinstalling, or applying updates to fix the software issue.</li> <li>➤ Set up a printer and discuss where the printer refuses to print or produces low-quality prints.</li> <li>➤ Delete or corrupt a file or folder on a computer.</li> <li>➤ Virus and Malware Removal</li> <li>➤ Overheating and Hardware Issues</li> </ul>	<b>4</b>
<b>Unit 4</b>		{ 7 Theory + 6 Practical=25 Periods }	
<b>Internet Vs Intranet</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	

<p><b>1. Internet</b>  Basics of the Internet, its history, architecture, protocols, and various web services and technologies.  TCP/IP and the OSI model  DNS (Domain Name System) and IP addressing  Introduction to web browsers  Navigating the web, bookmarks, and tabs</p> <p><b>2. Intranet</b>  Design, implementation, and management of intranet networks  Concept and purpose of intranets.  Design and set up an intranet 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>	<p><b>7</b></p>	<ul style="list-style-type: none"> <li>➤ Students should use web browsers to navigate the Internet, open multiple tabs, bookmark websites, and manage their browsing history.</li> <li>➤ Assign research topics and ask students to use search engines effectively to find information.</li> <li>➤ 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.</li> <li>➤ Set up a small-scale intranet using a local server or software.</li> <li>➤ Assign students to create and upload content to the intranet.</li> <li>➤ Demonstrate the configuration of user access controls, authentication methods, and encryption.</li> <li>➤ Troubleshoot and resolve common intranet issues.</li> <li>➤ Discuss backup and disaster recovery strategies for the intranet.</li> <li>➤ Identify and mitigate threats within the intranet environment.</li> </ul>	<p><b>6</b></p>
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<b>Unit 5</b>		{ 6 Theory + 8 Practical=30 Periods }	
Office automation		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<p><b>1. Working with MS Office</b> MS Word MS – EXCEL MS – POWERPOINT Google Docs</p> <p><b>2. DESKTOP PUBLISHING (DTP)</b> Introduction to DTP Uses of DTP and print Documents, Uses of fonts, Frames, page layout, etc. PageMaker. Corel Draw.</p> <p><b>3. Principles of Double Entry</b> Duality Principle. Accounting Equation. 3.3Debits and Credits. 3.4Types of Accounts: Dual Entry for Every Transaction T-Accounts 3.7Journal Entries 3.8Ledger 3.9Trial Balance Financial Statements Accrual Basis Consistency</p>	<b>6</b>	<p>➤ MS Office &amp; Google Docs</p>	<b>8</b>
		<p>➤ Page Maker ➤ Corel Draw</p>	
		<p>➤ Transaction Analysis. ➤ Journal Entries.</p>	
		<p>➤ Ledger Posting. ➤ Trial Balance. ➤ Adjusting Entries.</p>	
		<p>➤ Financial Statements. ➤ Closing Entries. ➤ Comprehensive Case Studies.</p>	
		<p>➤ Errors and Corrections.</p>	

### Part B

<b>Unit 1</b>		{ 2 Theory + 1 Practical=05 Periods }	
IT Project Management		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	

<p><b>1. IT Project Management</b>  Introduction to project management principles  Planning and executing a small IT project  Documentation and reporting.</p>	<b>2</b>	<ul style="list-style-type: none"> <li>➤ Key project management and responsibilities.</li> <li>➤ Divide students into teams. Assign a simple IT project simulation (e.g., software development, website creation).</li> <li>➤ Identifying stakeholders and their roles.</li> <li>➤ Estimating project time and resource requirements. Identifying project risks and developing a risk management plan.</li> <li>➤ Conducting project closure meetings.</li> <li>➤ Documentation and knowledge transfer.</li> </ul>	<b>1</b>
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<b>Unit 2</b> <b><u>Introduction C Programming</u></b>		{ 6Theory +6 Practical=24 Periods} 1 Period=45 minutes/1 Practical=3periods	
<b>Theo ry</b>		<b>Practic al</b>	
<p><b>1 <u>C Programming</u></b></p> <p>Understand the basic concepts of programming and algorithmic thinking. Write, compile, and debug C Programs. Develop problem-solving skills using programming. Work with fundamental data types, operators, and control structures in C. Develop an understanding of functions, arrays, and pointers. Create simple projects and applications in C.</p>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Write a simple C program that displays "Hello, World!" on the screen. Explain the basic structure of a C program, including the main function.</li> <li>➤ Create a program that declares and initializes variables of various data types, such as integers, floats, and characters.</li> <li>➤ Develop a program that performs basic arithmetic operations (addition, subtraction, multiplication, and division) on user-input numbers.</li> <li>➤ Write a program that asks the user for their age and determines if they are eligible to vote based on their age.</li> <li>➤ 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.</li> <li>➤ 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.</li> <li>➤ 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.</li> <li>➤ Create a program that handles strings, including reading input, finding string length, concatenating strings, and comparing strings.</li> <li>➤ Introduce file input/output by writing a program that reads data from a file and writes data to a file.</li> <li>➤ Write programs to demonstrate the use of pointers for memory manipulation, passing by</li> </ul>	<b>6</b>

		reference, and dynamic memory allocation (e.g., using `malloc` and `free`).	
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<b>Unit 3</b> <u>Introduction Python Programming</u>	{ 8 Theory + 5 Practical=23 Periods } 1 Period=45 minutes / 1 Practical= 3 periods
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Theory			Practical		
<b>1. Python Programming</b>			<ul style="list-style-type: none"> <li>➤ Hello World.</li> <li>➤ Create a simple calculator.</li> <li>➤ Build a program that converts between Celsius and Fahrenheit. Ask the user for the temperature and the desired conversion.</li> <li>➤ Implement a basic to-do list where users can add, delete, and view tasks.</li> <li>➤ Develop a simple text-based Hangman game where the computer selects a random word,</li> </ul>	<b>8</b>	<b>5</b>
1.1.	Introduction to Python				
1.2.	Variables and Data Types				
1.3.	Variables and their use.				
1.4. User Input and Output					
1.5. Conditional Statements					
1.6.	Loops				
1.7.	Lists				
1.8.	Function				

	s			and the user has to guess it one letter at a time.	
19.	Dictionaries	and Sets			

1.10. File Handling		<ul style="list-style-type: none"> <li>➤ Create a game where the user can play against the computer in a rock-paper- scissors match.</li> <li>➤ Utilize the Turtle graphics library to draw geometric shapes like squares, triangles, and circles.</li> </ul>	
<b>Unit-4</b> <b>Digital Marketing</b>		{ 10 Theory + 3 Practical=19 Periods } 1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theo ry</b>		<b>Practic al</b>	

<p><b>1. Introduction to Digital Marketing</b></p> <p>1.1. Understanding the significance of digital marketing.</p> <p>1.2. Historical evolution of marketing.</p> <p>1.3. Traditional vs. digital marketing.</p> <p><b>2. Website Basics</b></p> <p>2.1 The importance of having a website.</p> <p>2.2 Website design and user experience.</p> <p>2.3 Registering a domain and hosting.</p> <p><b>3. Content Marketing</b></p> <p>3.1 What is content marketing?</p> <p>3.2 Types of content (blogs, videos, infographics, etc...)</p> <p>3.3 Creating high quality content.</p> <p><b>4. Search Engine Optimization(SEO)</b></p> <p>4.1 Introduction to SEO.</p> <p>4.2 On-page and off-page SEO.</p> <p>4.3 Keyword research and optimization.</p> <p><b>5. Social Media Marketing</b></p> <p>5.1 Social media platforms overview (Facebook, Instagram, Twitter, LinkedIn, etc.).</p> <p>5.2 Creating and optimizing social media profiles.</p> <p>5.3 Content creation and posting strategies.</p> <p><b>6. Email Marketing</b></p> <p>6.1 Understanding email marketing.</p> <p>6.2 Building an email list.</p> <p>6.3 Designing effective email campaigns.</p> <p><b>7. Pay-Per-Click Advertising (PPC)</b></p> <p>7.1 What is PPC advertising?</p> <p>7.2 Creating Google Ads campaigns.</p> <p>7.3 Managing and optimizing PPC campaigns.</p> <p><b>8. Social Media Advertising</b></p> <p>8.1 Advertising on social media platforms.</p> <p>8.2 Targeting options and demographics.</p> <p>8.3 Measuring adperformance.</p> <p><b>9. Influencer Marketing</b></p> <p>9.1 The role of influencers in digital marketing.</p> <p>9.2 Finding and collaborating with influencers.</p> <p>9.3 Measuring influencer marketing ROI.</p>	<p><b>10</b></p>	<ul style="list-style-type: none"> <li>➤ Create a digital marketing plan for a hypothetical business or improve the online presence of a local small business.</li> <li>➤ Digital marketing campaigns, case studies, and industry trends.</li> <li>➤ Make a sample project.</li> </ul>	<p><b>3</b></p>
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<p><b>10. Analytics and Data</b>  10.1 Introduction to Google Analytics.  10. 2 Measuring website traffic and user behavior.  10.3 Using data for decision-making.</p> <p><b>11. Online Reputation Management</b>  11.1 Monitoring online reviews and mentions. 11.2  Strategies for managing online reputation.  11.3 Case studies of reputation management.</p>			
<p><b>Unit-5</b> { 10 Theory + 3 Practical=19 Periods }  <b>Basics of Cyber Security</b> 1 Period=45 minutes / 1 Practical= 3 periods</p>			
<b>Theo ry</b>		<b>Practic al</b>	

<p><b>1. Password Management</b></p> <ul style="list-style-type: none"> <li>. Use strong, unique passwords for each account.</li> <li>. Combine letters, numbers, and special characters.</li> <li>. Avoid easily guessable information like birthdays or common words.</li> <li>. Consider using a password manager to store and generate complex passwords.</li> </ul> <p><b>2. Two-Factor Authentication (2FA):</b></p> <p>Enable 2FA whenever possible for added security.</p> <p>2FA requires you to provide two forms of authentication (e.g., password and a one-time code) to access your accounts.</p> <p><b>3. Software Updates:</b></p> <p>Keep your operating system, software, and apps up to date.</p> <p>Updates often contain security patches to fix vulnerabilities that attackers may exploit.</p> <p><b>4. Antivirus and Antimalware Software:</b></p> <ul style="list-style-type: none"> <li>Install reputable antivirus and antimalware software on your devices.</li> <li>Regularly scan for and remove malicious software.</li> </ul> <p><b>5. Firewalls:</b></p> <p>Use firewalls, both at the network and device level, to filter incoming and outgoing traffic.</p> <p>Configure firewalls to allow only necessary connections.</p>	<p><b>10</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Practice Strong and Unique Password</b></li>   <li>➤ <b>Enable two factor authentication</b></li>   <li>➤ <b>Update antivirus and software</b></li> </ul>	<p><b>3</b></p>
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<p><b>6. Email Safety:</b>  Be cautious of phishing emails and suspicious attachments.  Verify the sender's identity before clicking on links or downloading attachments.  Do not share sensitive information via email unless it is secure.</p> <p><b>7. Social Engineering Awareness:</b>  Be wary of social engineering tactics used by attackers to manipulate individuals into revealing sensitive information or taking harmful actions.  Always verify the identity of the person or organization making a request.</p> <p><b>8. Secure Wi-Fi:</b>  Secure your home Wi-Fi network with a strong password.  Change default router login credentials.  Disable remote management if not needed.</p> <p><b>9.Safe Browsing Habits</b>  Avoid visiting suspicious or untrusted websites.  Look for "https://" and a padlock icon in the address bar for secure websites.  Be cautious when clicking on ads or pop-ups.</p> <p><b>10. Regular Audits and Vulnerability Scanning:</b>  Conduct regular security audits and vulnerability assessments to identify and address weaknesses in your systems and networks.</p>			
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Part A-90 Classes Part B-90 Classes

Total= 180 Classes

**Reference:**

1. CRM Domestic voice by Skill India & NSDC.
2. Employability Skill by Nimi (National Instructional Media Institute).
3. Computer Application in Business by Himalaya Publication.
4. IT/ITES by Utkal Publication.



# Syllabus for IT/ITES

Class-12

## Paper-III

### Part A: Employability Skills

<b><u>Unit-1</u></b>		{8 Theory + 3 Practical= 17Periods}	
<b><u>Communication Skills-IV</u></b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Importance of active listening at workplace</li> <li>2. Steps to active listening.               <ol style="list-style-type: none"> <li>2.1 Pay Attention</li> <li>2.2 Show That You're Listening</li> <li>2.3 Paraphrase</li> <li>2.4 Clarify</li> <li>2.5 Reflect Feelings</li> <li>2.6 Empathize</li> <li>2.7 Avoid Interrupting</li> <li>2.8 Provide Feedback</li> <li>2.9 Suspend Judgment</li> <li>2.10 Respond Appropriately</li> </ol> </li> <li>3. Writing skills to the following:               <ol style="list-style-type: none"> <li>2.1 Sentence</li> <li>2.2 Phrase</li> <li>2.3 Kinds of Sentences</li> <li>2.4 Parts of Sentence</li> <li>2.5 Parts of Speech Articles</li> <li>2.6 Construction of a Paragraph</li> </ol> </li> </ol>	<b>8</b>	Demonstration of the key aspects of becoming active listener.  Preparing posters of steps for active listening.  <b>Demonstration and practice of writing sentences and paragraphs on topics related to the subject</b>	<b>3</b>
<b><u>Unit-2</u></b>		{7 Theory + 3 Practical=16 Periods}	
<b><u>Self-management Skills-IV</u></b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Finding and listing motives (needs and desires);</li> <li>2. Finding sources of motivation and inspiration (music, books, activities); expansive thoughts; living fully in the present moment; dreaming big..</li> <li>3. Describe the meaning of personality. Describe how personality</li> </ol>	<b>7</b>	Group discussion on identifying needs and desire.  Discussion on sources of motivation and inspiration.	<b>3</b>

<p>influence others. Describe basic personality traits. Describe common personality disorders- paranoid, antisocial, schizoid, borderline, narcissistic, avoidant, dependent and obsessive.</p>		<p>Demonstrate the knowledge of different personality types.</p>	
<p><b>Unit 3</b> <b>Basic ICT Skills</b></p>		<p>{11 Theory + 6 Practical=29 Periods} 1 Period=45 minutes / 1 Practical= 3 periods</p>	
<p><b>Theory</b></p>		<p><b>Practical</b></p>	
<p>1. Introduction to word processing. Software packages for word processing. Opening and exiting the word processor. Creating a document. Saving document. Text editing. Word wrap and alignment. Font size, type and face. Header and Footer. Auto Correct. Numbering and Bullet. Creating Table. Password protection. Printing document. Find and Replace. Page numbering. Saving a document in various formats..</p> <p>2. Introduction to spreadsheet application. Various spreadsheet applications. Creating a new worksheet. Opening workbook and entering data. Resizing fonts and styles. Copying and moving. Filter and sorting. Formulas and functions. Password protection. Printing a spreadsheet. Saving a spreadsheet in various formats.</p>	<p><b>11</b></p>	<p>List the software and features for word processing. Open and exit the word processor. Create a document. Edit the text. Wrap and align the text. Change the font type, size, and face. Insert Header and Footer. Use Autocorrect option. Assign numbering and bullets to list items. Create Table. Save the document. Protect the document with password. Print the document. Use Find and Replace. Give page numbering. Save the document in various formats.</p> <p>Introduce with the spreadsheet application. List the spreadsheet applications. Create a new worksheet. Open the workbook and enter text. Resize fonts and styles. Copy &amp; move the cell data. Sort and Filter the data. Apply elementary formulas and functions. Protect the spreadsheet with password. Print a spreadsheet. Save the spreadsheet in various formats.</p>	<p><b>6</b></p>

<p>3. Introduction to presentation software .</p> <p>Software packages for presentation.</p> <p>Creating a presentation. Entering and editing text. Adding a slide.</p> <p>Deleting a slide. Formatting text.</p> <p>Inserting clipart &amp; images. Slide layout.</p> <p>Slide transition and custom animation.</p> <p>Saving a presentation. Printing a presentation.</p>		<p>Explain the features of presentation.</p> <p>List the software packages for presentation.</p> <p>Create a new presentation. Add a slide to presentation. Delete a slide.</p> <p>Enter and edit text. Format text.</p> <p>Insert clipart &amp; images. Slide layout.</p> <p>Save a presentation.</p> <p>Print a presentation document.</p>	
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**Unit 4** {6 Theory + 2 Practical=12 Periods}  
**Entrepreneurial Skills-IV** 1 Period=45 minutes / 1 Practical= 3 periods

<b>Theory</b>		<b>Practical</b>	
<p>1. Barriers to becoming entrepreneur.</p> <p>Behavioural and entrepreneurial competencies , adaptability/decisiveness, initiative/perseverance, interpersonal skills, organizational skills, stress management, valuing service and diversity.</p> <p>2. Entrepreneurial competency in particular: self-confidence, initiative, seeing and acting on opportunities, concern for quality, goal setting and risk taking, problem solving and creativity, systematic planning and efficiency, information seeking, persistence, influencing and negotiating, team building.</p>	<b>6</b>	<p>Administering self-rating questionnaire and score responses on each of the Competencies.</p> <p>Collect small story/ anecdote Of prominent successful Entrepreneurs.</p> <p>Identify entrepreneurial competencies reflected in each story and connect it to the definition of behavioural Competencies.</p> <p>Preparation of competency profile of students.</p> <p>Games and exercises on changing entrepreneurial behaviour and development of competencies for enhancing self-confidence, problem solving, goal setting, information seeking, team building and creativity.</p>	<b>2</b>

**Unit 5**  
**Green Skills-IV**

{7 Theory + 3 Practical=16 Periods}  
1 Period=45 minutes / 1 Practical= 3 periods

Theory		Practical	
<p>1. Role of green jobs in toxin-free homes.</p> <p>Green organic gardening, public transport and energy conservation,</p> <p>Green jobs in water conservation.</p> <p>Green jobs in solar and wind power, waste reduction, reuse and recycling of wastes,</p> <p>Green jobs in green tourism</p> <p>Green jobs in building and construction.</p> <p>Green jobs in appropriate technology.</p> <p>Role of green jobs in Improving energy and raw materials use</p> <p>Role of green jobs in limiting greenhouse gas emissions</p> <p>Role of green jobs minimizing waste and pollution</p> <p>Role of green jobs in protecting and restoring ecosystems</p> <p>Role of green jobs in support adaptation to the effects of climate change.</p>	<b>7</b>	<p>Listing of green jobs and preparation of posters on green job profiles.</p> <p>Prepare posters on green jobs.</p>	<b>3</b>

## Part B: Vocational Skills

<b>Unit 1</b>		{21 Theory + 4 Practical=33 Periods}	
Fundamentals of ERP		1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<p>1. Define Enterprise. Define Planning. Challenges of enterprise systems. Uses of enterprise resource planning. Understanding the factors affecting ERP. Advantages of ERP. ERP vendors</p> <p>2. Define time management concept and importance of time management. Understanding the improve time management skills. Define time management in IT.</p>	<b>4</b>	<p>List the advantages of ERP. List the components of ERP. List the ERP vendors.</p> <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. 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> <p>Promote sharing of ideas and group participation to resolve a problem or question.</p>	<b>2</b>
<b>Unit 2</b>		{10 Theory + 4 Practical=22 Periods}	
<b>Basics of Procurement Policy and BPO's</b>		1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<p>1. Introduction Procurement Policies. Explain the Benefits and Limitations Procurement Policies.</p> <p>2. Define Business Process. Introduction to BPO Industry. Understanding Role of BPO Industry. Understanding type of BPO services.</p>	<b>2</b>	<p>Interpreted the Importance of Procurement Policies.</p> <p>List the Benefits and Limitations of Procurement Policies.</p> <p>List the various leading Indian BPO. Explain the applications Area of BPO. List the Different services of BPO. Interpreted the importance of BPO industry.</p> <p>List the Indian leading BPO Company. Case study about a BPO Company.</p>	<b>3</b>

<p>Explain Benefits and Limitations of BPO.  Define Payroll.  Define Quality Assurance.  Working environment in BPO.</p>			
<p><b>Unit 3</b>  <b>Fundamentals of Learning</b></p>		<p>{20 Theory + 5 Practical=35 Periods}  1 Period=45 minutes / 1 Practical= 3 periods</p>	
<p><b>Theory</b></p>		<p><b>Practical</b></p>	
<p>1. Understanding concepts of learning, knowledge and skill.  2. Introduction to learning concept of learning  Importance of learning.  Characteristics of learning.  Different type of learning.  Factors affecting learning.  3. Introduction to sources of learning. Use of learning.  Explain knowledge and skill  Understanding the importance sources of learning.  Difference between knowledge and skill. Types of knowledge.</p>	<p><b>6</b></p>	<p>➤ Identify knowledge between learning, knowledge and skill  ➤ List the characteristics of learning  Identify Factors affecting learning  Interpret the importance of English in communication  Interpret the importance of learning.  ➤ Identify the knowledge. Identify the skill.  List the type of knowledge  Interpreted the importance of sources of learning.  Identify the difference between knowledge and skill.</p>	<p><b>4</b></p>

Part A-90 Classes

Part B-90 Classes

Total= 180 Classes

# Syllabus for IT/ITES

Class-12

Paper-IV

## Part A

<b>Unit 1</b>		{2 Theory + 1 Practical=05 Periods}	
<b>Introduction to IT</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
1.1 Representation Of Data	2	<ul style="list-style-type: none"> <li>➤ Creating Charts and Graphs: Use spreadsheet software like Microsoft Excel or Google Sheets to create different types of charts and graphs such as bar charts, line graphs, pie charts, and scatter plots. Data Visualization Tools: Explore data visualization tools like Tableau, Power BI, or Google Data Studio.</li> </ul>	1
1.2 Microsoft Tools		<ul style="list-style-type: none"> <li>➤ Microsoft Office Suite (Word, Excel, PowerPoint), Microsoft Teams, Microsoft Azure, Power BI, Visual Studio, Microsoft SQL Server Microsoft Power Automate, Microsoft Dynamics 365 Microsoft Access Microsoft SharePoint</li> </ul>	
1.3 Introduction To Viruses.		<ul style="list-style-type: none"> <li>➤ Anti -Virus Software Installation</li> </ul>	
<b>Unit 2</b>		{6 Theory + 2 Practical=12 Periods}	
<b>Data Structure and Algorithms</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. What is a Data Structure?</li> <li>2. Why are Data Structures Important?</li> <li>3. Classification of Data Structures</li> <li>4. Types of Data Structures</li> <li>5. Applications of Data Structures</li> <li>6. Learn Basics of Data Structure</li> <li>7. Most Popular Data Structures</li> </ol>	6	<ul style="list-style-type: none"> <li>➤ Arrays</li> <li>➤ Linked Lists</li> <li>➤ Stacks</li> <li>➤ Queues</li> <li>➤ Trees</li> </ul>	2

<b>Unit 3</b>		{6 Theory + 4 Practical=18 Periods}	
<b>Trouble Shooting With DOS</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Introduction to DOS</li> <li>2. Field of Application</li> <li>3. Structure information</li> <li>4. System environment</li> <li>5. The Command Prompt</li> </ol>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Basic DOS Commands</li> </ul>	<b>4</b>
<b>Unit 4</b>		{7 Theory + 6 Practical=25 Periods}	
<b>Database Management System</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Data processing concept and file structure</li> <li>2. File utilities</li> <li>3. Data Models</li> <li>4. Query Language</li> </ol>	<b>7</b>	<ul style="list-style-type: none"> <li>➤ Writing Basic SQL SELECT Statements</li> <li>➤ Restricting and Sorting Data</li> <li>➤ Single-Row Functions</li> <li>➤ Creating and Managing Tables</li> </ul>	<b>6</b>
<b>Unit 5</b>		{6 Theory + 8 Practical=30 Periods}	
<b>Computer applications in business</b>		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Accounting Software</li> <li>2. Customer Relationship Management (CRM)</li> <li>3. Enterprise Resource Planning (ERP)</li> <li>4. Data Analytics and Business Intelligence (BI)</li> <li>5. Project Management Tools</li> <li>6. Document Management Systems (DMS)</li> <li>7. E-commerce Platforms</li> <li>8. Supply Chain Management (SCM)</li> <li>9. Communication Tools</li> <li>10. Cybersecurity Solutions</li> </ol>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Make introduce to all type of applications like: <ul style="list-style-type: none"> <li>• Payroll</li> <li>• Zoho</li> <li>• Sap</li> <li>• Google analytics</li> <li>• Trello</li> <li>• Google drive</li> <li>• Woo commerce</li> <li>• SAP SCM</li> <li>• Zoom</li> <li>• Firewalls</li> </ul> </li> </ul>	<b>8</b>



## Part B

<b>Unit 1</b>		{4 Theory + 4 Practical=16 Periods}	
<b>C++ Programming</b>		1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<ol style="list-style-type: none"> <li>1. Introduction to C++</li> <li>2. Usage of C++</li> </ol>	<b>2</b>	<ul style="list-style-type: none"> <li>➤ Write a program in C++ to print welcome text on a separate line</li> <li>➤ Write a program in C++ to print the sum of two numbers.</li> <li>➤ Write a in C++ program to find the size of fundamental data types.</li> <li>➤ Write a program in C++ to print the sum of two numbers using variables.</li> </ul>	<b>1</b>

<b>Unit 2</b>		{6 Theory + 6 Practical=24 Periods}	
<b>HTML</b>		1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<ol style="list-style-type: none"> <li>1. What is HTML</li> <li>2. Tags</li> <li>3. Attributes</li> <li>4. Structure</li> <li>5. Text Content</li> <li>6. Links and Images</li> <li>7. Comments</li> </ol>	<b>6</b>	<ul style="list-style-type: none"> <li>➤ Write Some Programmes Using HTML like: Hello World Paragraph and Line Breaks Unordered List Ordered List Link Image etc...</li> </ul>	

<b>Unit 3</b>		{7 Theory + 8 Practical=31 Periods}	
<b>Programming with JAVA Script</b>		1 Period=45 minutes / 1 Practical= 3 periods	
Theory		Practical	
<ol style="list-style-type: none"> <li>1. Introduction to JAVA Script</li> <li>2. Client-side Scripting</li> <li>3. Syntax</li> <li>4. Variables and Data Types</li> <li>5. Functions</li> <li>6. DOM Manipulation</li> <li>7. Event Handling</li> <li>8. Asynchronous Programming</li> <li>9. Error Handling</li> <li>10. Browser Compatibility</li> </ol>	<b>8</b>	<ul style="list-style-type: none"> <li>➤ Write Below Programs using JAVA Script <ul style="list-style-type: none"> <li>• Hello World Alert</li> <li>• Variables and Output</li> <li>• User Input and Output</li> <li>• DOM Manipulation</li> <li>• Event Handling</li> </ul> </li> </ul>	<b>5</b>

<b>Unit-4</b>		{10 Theory + 3 Practical=19 Periods}	
Introduction to AI		1 Period=45 minutes / 1 Practical= 3 periods	
<b>Theory</b>		<b>Practical</b>	
<ol style="list-style-type: none"> <li>1. Introduction to AI</li> <li>2. Different Uses of AI</li> <li>3. AI in Business Organizations</li> </ol>	<b>10</b>	<ul style="list-style-type: none"> <li>➤ Do multiple tasks like Letter Writing, Project Making, Making Spreadsheets etc.... using AI</li> </ul>	<b>3</b>

Part A-90 Classes

Part B-90 Classes

Total= 180 Classes

## Reference Books for IT/ITes for Class XII

1. "Information Technology - Class XII" by NCERT
2. Employability-skills-class-12 by NCERT
3. IT and ITes Skills" by CBSE
4. Data Structures and Algorithms Made Easy" by Narasimha Karumanchi.
5. "Fundamentals of Computers" by V. Rajaraman
6. "Introduction to Database Management" by Atul Kahate
7. Computer applications in business-by Himalaya Publication
8. "Object-Oriented Programming with C++" by E. Balagurusamy
9. "Web Designing and Development Using HTML5" by Satish Jain and M. Geetha Iyer
10. "JavaScript: The Ultimate Beginners Guide for Learning JavaScript Programming" by Abhinav Prakash