Maharashtra State Board of
Secondary & Higher Secondary School, Pune

Department of Computer Science

Subject: Information Technology(97)
Standard: Eleven
Faculty: Science

Syllabus

XI Information Technology (Theory & Practical)

Theory Index

Sr. No.	Unit/Topic	Weightage
1	Basics of Information Technology	20
2	Introduction to DBMS	15
3	Impressive Web Designing	30
4	Cyber Law	15

Practical Index

Sr. No.	Practical's Name
1	Daily Computing (LibreOffice)
2	Web Designing (Html-5)
3	Client Side Scripting (JavaScript)
4	Accounting Package (GNUKhata)
5	Digital Content Creation (GIMP, Inkscape)
6	DBMS (PostgreSQL)

Syllabus

Sr. No.	Name of the Topic	Scope of Syllabus
1	Basics of Information Technology	• **An Introduction to IT**: Definition of Information Technology • **Data and Information**: Meaning of Data and Information, Examples of Data and Information, need of information • **various Concept user under IT**: Meaning of computer, Computer System, Architecture of Computer, Computer System and Peripherals, Input Unit, Central Processing Unit, Output Unit, ALU, Control Unit, Memory Unit, Types of memory, Primary memory(RAM and ROM), Secondary Memory, Different Units of Memory, Concept of Hardware and Software Categories of software i.e. Open Source software and closed source software Classification of computer software i.e. Application software and System Software Operating System for personal Computer (DOS, Windows, MacOS, ChromeOS, Unix, Linux) Operating systems for mobile phones(Android, Blackberry, Asha, iOS) • **Introduction to GNU/Linux(GNU Not Unix)** : GNU/Linux family, Ubuntu one of the most popular GNU/Linux distribution, Graphical User Interface(GUI), Desktop Environment of Ubuntu, Command Line Interface(CLI),File Explorer and software center,Various Linux Commands, The GNU/Linux File system / Hierarchy Standard • **Computer Network**: Introduction to Networks, Types of Network, Local Area Network, Metropolitan Area Network, Wide Area Network, Network Configuration(peer to peer and client server Architecture) • **Internet**: Meaning, History of Internet, Protocols(HTTP,FTP,TCP/IP,DNS,IMAP , POP3, SMTP etc.) • **I.T. Enabled Services**: I.T. enabled Services meaning, I.T. enabled service centers, Popular I.T. enabled service centers • **Careers in I.T**.: Various careers in IT, Opportunities like Web Designer, Database Manager, Financial Advisor etc. • **Recent trades in I.T.**: Green Computing, IoT, Cloud Computing, DA, AI, Big Data, Machine Learning

2	Introduction to DBMS	**Introduction**: Introduction and concept of database **Definition of Database**: Definition of Database,Data vs Information **Introduction to Database Management System**: Meaning of DBMS, examples of DBMS(postgreSQL, MySQL, SQLserver) **Some Applications of DBMS**: Railway reservation, Library Management System, Banking, Social Media Sites etc. **Advantages of DBMS**: Reducing data redundancy, Sharing of Data, Data Integrity, Data Security, Privacy, Backup and Recovery, Data Integrity, Development and Maintenance Time **Data types in DBMS** :Char, Varchar, Decimal, Float, Int, Date, Time **Data Model**: Relational Model, Propertise of Transactions (Atomicity, Consistancy, Isolation, Durability) **Introduction to DBMS**: Basics Database Concept, Tables, fields, Record, Key, Primary key, Foreign Key, Relationship in database, One to One Relationship, One to Many Relationship, Many to Many Relationship with example **Introduction to SQL**: Meaning of Structured Query Language(SQL) **Categories of SQL Commands**: SQL Commands, Categories of SQL command, Data Definition Language (DDL) Commands(create ,Alter, Drop), Data Manipulation Language (DML) Commands (Select, Update, Delete, Insert into), Data Control Language (DCL)Commands (Grant and Revoke)
2	Introduction to DBMS	

3	Impressive Web Designing	**Introduction**: Working with web, Web Server, DNS server **How does the web work?**: Meaning of World Wide Web(WWW) and working of web **Components of web**: Web Page, Websites, Web Browser, Web Server, Uniform Resource Locator(URL) ,HTTP, HTML **Introduction to HTML5**: Basic structure of HTML, HTML tags and attributes, Classification of html tags, Container tags, Empty tags, Purpose of tags(<html>..</html>,<head>..</head>,<title>..</title>,<body>..</body>) Structure of web page using HTML5 **Text Formatting Element**: List of different level formatting tags(<b>,<i>,<u>,<small>,<sup>,<sub>,<del>,<ins>,<mark>with example **Heading levels**: Levels of heading with example **Inserting image, a horizontal ruled line and a paragraph text**: <img> tag with attributes,<hr>tag with attributes, <p> tag with example **Creating a table**: Creating a table using <table>, <caption>, <tr>, <td>, <th>tags with attributes with related examples **Creating Hyperlinks on a web page**: HTML Links using <a> tag with attributes, HTML Link colors, Image Hyperlink, Text Hyperlink syntax with examples **Forms in HTML**: Form controls, <form> tag with attributes, <input>tag with attributes (text, maxlength, name, checked, value, size), Syntax with form example.<select>tag with attributes and example **Client Side Scripting Introduction**: Introduction to client side scripting (Javascript) **Scripting Language**: Meaning of script, Insertion of Javascript in HTML with examples **Variables**: Meaning of variable, rules to declare variables, syntax and examples

		Data Types: Number Data Type, String Data type, Boolean Data type, Infinity, null, undefined with examples **Operators**: Arithmetic operators, Relational Operators, Logical Operators, Increment and Decrement operators with examples, Comments in Javascript (single line and Multiline Comment) **Commonly used built in functions in JavaScript**: Functions used in Javascript (parseInt(), parseFloat(), alert(), prompt(), confirm(), toLowerCase(), toUpperCase(), isNaN() with examples **Decision Making Statements**: if statement, if else statement syntax with examples **User Defined Functions**: Meaning, Function Definition, Syntax, Event Handling, Various events(onKeyDown, onKeyUp) Event Handlers(onMouseOut, onMouseOver, onClick, onMouseUp, onMouseDown) , Keyboar **Syntax with examples and programs**

4	Cyber Law	**Introduction** : Introduction to Cyber Law, meaning, Advantages of Cyber Law **Ethics and Morals**: Meaning of Ethics and Morals **Cyber crime**: Cyber Crime, example of Cyber crime, Software piracy with example, Unauthorized Access with example, Copyright Violation, Cracking, Cyber Bully or Cyber Stalking, Phishing, Plagiarism, Hacking **Cyber safety and Security**: Cyber Saftey, Identify threat, Protection of data, Recovery from cyber attack, Educate your students, Do's and Don't for Cyber world, Security Procedures(Encryption, SSL, Firewall) **IT Act of India 2000**: IT Act of India 2000, Salient features of I.T act and case studies

Appendix	- Linux OS - Libreoffice - PostgreSQL - GNUKhata