



THE LEXICON INTERNATIONAL SCHOOL, KALYANINAGAR



Curriculum 2025-26 Class XI

Subject: Informatics Practices

Subject Code: 086

Term	Month	Portion to be covered
Term I	April/June	Unit 1. Introduction to the computer system Introduction to computer and computing: evolution of computing devices, components of a computer system and its interconnections, Input/output devices. Computer Memory: Units of memory, types of memory - primary and secondary, data deletion, its recovery, and related security concerns. Software: purpose and types - system and application software, generic and specific purpose software. Unit 2: Introduction to Python Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging.
	July	Unit 2: Introduction to Python (Continue) Control Statements: if-else, if-elif-else, while loop, for loop
	August	Unit 2: Introduction to Python(Continue) Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions - len(), list(), append(), insert(), count(), index(), remove(), pop(), reverse(), sort(), min(), max(), sum() Dictionary: concept of key-value pair, creating, initializing, traversing, updating, and deleting elements
Term II	September	Unit 2: Introduction to Python(Continue) Dictionary methods and built-in functions - dict(), len(), keys(), values(), items(), update(), del(), clear()
	October	Unit 3: Database Concepts and the Structured Query Language Database Concepts: Introduction to database concepts and their need, Database Management System. Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key. Advantages of using Structured Query Language, Data Definition Language, Data Query Language, and Data Manipulation Language. Introduction to MySQL: Creating a database using MySQL, Data Types Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER
	November	Unit 3: Database concepts and the Structured Query Language(Continue) Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL. Data Manipulation: INSERT, DELETE, UPDATE WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL Data Manipulation: INSERT, DELETE, UPDATE
	December	Unit 4: Introduction to the Emerging Trends Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart Cities.
	January	Unit 4: Introduction to the Emerging Trends(Continue) Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Blockchain technology
	February	Revision