CLASS -   XI
SUBJECT-   INFORMATICS PRACTICES

SL. NO.	MONTH & WORKING DAYS	CONTENT
1.	APRIL, 13 DAYS	**Unit 1:-** **Introduction to Computer System** Basics of Computer systems, Components, I/O, Types of memory – primary and secondary.
2.	JUNE, 16 DAYS	**Unit 1:-** **Introduction to Computer System (Contd ...)** 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,
3.	JULY, 25 DAYS	**Unit 2: Introduction to Python (Contd ...)** Precedence of operators, data types, mutable and immutable data types. statements, expressions, evaluation, Input and output statements, data type conversion, comments, debugging.

4.		**AUG,** **23 DAYS**	**Unit 2: Introduction to Python (Contd ...)** Control Statements: if-else, if-elif-else, for loop .
5.		**SEPT,** **21 DAYS**	**Unit 2: Introduction to Python (Contd ...)** While loop Revision
6.		**OCT,** **15 DAYS**	**Unit 2: Introduction to Python (Contd ..)** 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, dictionary methods and built-in functions – dict(), len(), keys(), values(), items(), update(), del(), clear()
7.		**NOV,** **21 DAYS**	**Unit 3: Database concepts and the Structured Query Language** **Database Concepts:** Introduction to database concepts and its need, Database Management System. Relational data model: Concept of domain, tuple, relation, Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language **Database Concepts:** Introduction to MySQL, creating a database using MySQL, Data Types Data Definition: CREATE DATABASE

8.	DEC, 17 DAYS	**Unit 3: Database concepts and the Structured Query Language** **Database Concepts:** CREATE TABLE, DROP, ALTER, Data Manipulation: INSERT, DELETE, Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL
9.	JAN, 24 DAYS	**Unit 3: Database concepts and the Structured Query Language** **Database Concepts:** Data Manipulation: UPDATE,candidate key, primary key, alternate key **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, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology. Revision
10.	FEB, 22 DAYS	Revision Annual Exam Praticals Annual Exam
11.	MARCH, 23 DAYS	Annual Exam

BOOKS: NCERT Informatics Practices - Text book for class - XI