

**Syllabus of Class XI (2022-23)**  
**Informatics Practices (065)**  
**First Term**

<b>Week/Month</b>	<b>Chapters/ Topics</b>	<b>Subtopics</b>	<b>Total No. Of Periods</b>
8 <sup>th</sup> August 14 <sup>th</sup> August	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,	7 Theory
17 <sup>th</sup> August to 25 <sup>th</sup> August	Unit 2: Introduction to Python	Data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments, input and output statements, data type conversion, debugging.	5 Theory 6 Practical
26 <sup>th</sup> August to 8 <sup>th</sup> September	Unit 2: Introduction to Python	Control statements: if statement, if-else, Control statements: if -elif Statement, nested if-else statement, for loop, while loop, break, continue, pass statements	10 Theory 5 Practical
1 October 15 <sup>th</sup> October	Unit 2: Introduction to Python	List operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions.: len(), list(), append(), extend(), insert(), count(), find(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum()	7 Theory 7 Practical
16 <sup>th</sup> October to 30 <sup>th</sup> October	Unit 2: Introduction to Python	Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()	7 Theory 7 Practical
1 <sup>st</sup> November to 4 <sup>th</sup> November	Unit 3:	Database Concepts: Introduction to database concepts and its need, Database Management, System. Relational data model: concept of attribute, domain, tuple, relation.	3 Theory 2 practical
6 <sup>th</sup> November to 10 <sup>th</sup> November	Unit 3:	Candidate key, primary key, alternate key, foreign key. Structured Query Language: Data Definition Language, Data Query Language and Data, Manipulation Language, Introduction to MySQL: Creating a database, using database, showing tables using MySQL,	4 Theory 3 Practical
12 <sup>th</sup> November to 16 <sup>th</sup> November	Unit 3:	Data Types : char, varchar, int, float, date. Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute).	4 Theory 3 Practical
18 <sup>th</sup> November to 22 <sup>nd</sup> November	Unit 3:	Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause Data Manipulation Commands: INSERT, UPDATE, DELETE.	4 Theory 3 Practical
24 <sup>th</sup> to 30 <sup>th</sup> Nov.	Unit 2 & 3:	Revision of Unit 2 & Unit 3	7 Theory

## Second Term

<b>Week/Month</b>	<b>Chapters/ Topics</b>	<b>Subtopics</b>	<b>Total No. Of Periods</b>
1 <sup>st</sup> Dec to 9 <sup>th</sup> Dec	Unit 1: Introduction to Computer System	Introduction to computers and computing: evolution of computing devices, components of a computer system and their interconnections, Input/Output devices.  Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns.	9 Theory
11 <sup>th</sup> Dec 20 <sup>th</sup> Dec	Introduction to Computer System	Software: purpose and types – system and application software, generic and specific purpose software.	8 Theory
9 <sup>th</sup> Jan to 13 <sup>th</sup> Jan	Unit 4: Introduction to the Emerging Trends	Artificial Intelligence, Machine Learning, Natural Language Processing, <ul style="list-style-type: none"><li>● Immersive experience (AR, VR), Robotics</li><li>● Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities</li></ul>	4 Theory 5 Practical
15 <sup>th</sup> Jan to 30 <sup>th</sup> Jan	Unit 4: Introduction to the Emerging Trends	Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); <ul style="list-style-type: none"><li>● Grid Computing, Block chain technology.</li></ul>	5 Theory 5 Practical
1 <sup>st</sup> Feb to 15 <sup>th</sup> Feb		Revision Unit 1 & Unit 4	14 Theory