

**Navy Children School**  
**Split Up Syllabus (2024-25)**  
**Informatics Practices (065)**  
**Class -XI**

<b>Month</b>	<b>Unit &amp; Chapter</b>	<b>Content</b>	<b>Project/ Practical File</b>
June	Unit 1- Introduction to computer system Chapter 1– Computer System	Introduction to computer 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. Software: purpose and types – system and application software, generic and specific purpose software.	Draw IPO cycle.  Observe the motherboard and identify its parts
June,july	Unit 2- Introduction to Python Chapter 3– Brief Overview of 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. Control Statements: if-else, for loop	Programs using Python programming language  Run a program using Python interpreter in interactive mode and script mode. Write single line and multi-line comments.

<p>August, September</p>	<p>Unit 2- Introduction to Python Chapter 4– Working with Lists and Dictionaries</p>	<p>Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions. Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions.</p>	<p>Programs using Python programming language  Create a list and perform concatenation and repetition. Create a dictionary and manipulate using built-in functions.</p>
<p>October, November</p>	<p>Unit 3- Database concepts and the Structured Query language Chapter 7 – Database Concepts</p>	<p>Database Concepts: Introduction to database concepts and its 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</p>	<p>Create tables and assign Primary Key and Foreign key</p>
	<p>Unit 3- Database concepts and the Structured Query language Chapter 8 – Introduction to Structured</p>	<p>Introduction to MySQL, creating a database using MySQL, Data Types Data Definition: CREATE TABLE Data Query: SELECT, FROM, WHERE. Data Manipulation: INSERT</p>	<p>Create database using MySQL and perform Queries</p>

	Query Language		
December, January	Unit 4- Introduction to Emerging Trends Chapter 2- 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.	Find out how NLP is helping differently abled persons. Find out what role are robots playing in the medical field. Explore and list a few IoT devices available in the market.