

Class XI  
Computer Science  
Syllabus (2023-24)

### Unit Test-1 Syllabus

#### **Unit I: Computer Systems and Organisation**

- Basic computer organization, Types of Software
- Operating System (OS) and Number System

#### **Unit II: Computational Thinking and Programming - I**

- Familiarization with the basics of Python programming
  - Knowledge of data types, Operators
  - Expressions, statement, type conversion, and input/output
  - Errors and Flow of Control

### Unit Test-2 Syllabus

#### **Unit II: Computational Thinking and Programming – I**

- Strings- Introduction, indexing, string operations, built in functions
- List- Introduction, indexing, string operations, built in functions

### TERM-1 Syllabus

#### **Unit I: Computer Systems and Organisation**

- Basic computer organization
- Types of software
- Operating System (OS)
- Boolean logic
- Number System
- Encoding Schemes

#### **Unit II: Computational Thinking and Programming - I**

- Introduction to Problem-solving:
- Familiarization with the basics of Python programming:
- Knowledge of data types:
- Operators:
- Expressions, statement, type conversion, and input/output:
- Errors- syntax errors, logical errors, and run-time errors
- Flow of Control- Conditional statements:

**Strings:** introduction, string operations (concatenation, repetition, membership and slicing), traversing a string using loops.

### Term-2 Syllabus

#### **Unit II: Computational Thinking and Programming - I**

- **Strings**  
introduction, string operations (concatenation, repetition, membership and slicing), traversing a string using loops, built-in functions/methods
- **Lists**  
introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/methods

- **Tuples**

introduction, indexing, tuple operations (concatenation, repetition, membership and slicing); built-in functions/methods, tuple assignment, nested tuple.

- **Dictionary**

introduction, accessing items in a dictionary using keys, mutability of a dictionary (adding a new term, modifying an existing item), traversing a dictionary, built-in functions/methods.

- **Python Modules**

Importing module using 'import <module>' and using from statement, importing math module.

### **Unit III: Society, Law and Ethics**

- Digital Footprints
- Digital Society and Netizen
- Data Protection
- Cyber Crime
- Cyber safety: safely browsing the web, identity protection, confidentiality
- Malware: viruses, trojans, adware
- E-waste management: proper disposal of used electronic gadgets.
- Information Technology Act (IT Act)
- Technology and society: Gender and disability issues while teaching and using computers