

COMPUTER SCIENCE SYLLABUS (CLASS XI)

SESSION : 2017 – 18

TERM I

APRIL-

- General OOP Concepts
 - Basic Concepts of OOP
 - Abstraction
 - Encapsulation
 - Inheritance
 - Polymorphism
- Introducing Java
 - History of Java
 - Byte code
 - JVM
 - Characteristics of Java

MAY-

- Flow of Control
 - Programming Constructs
 - The if statement
 - The switch statement
 - Iteration statements
 - The for loop
 - The while loop
 - The do-while loop
 - Nested loops
 - Jump statements
- Classes in Java
 - Class as Composite Type
 - Creating and using objects
 - Encapsulation
 - Visibility Modifiers
 - Scope and Visibility Rules

JUNE-

- Java Fundamentals
 - Java Character Set
 - Tokens
 - Concept of data types
 - Variables and Constants
 - Operators in java
 - Expressions
 - Objects as Instances of Class
 - Significance of Classes

COMPUTER SCIENCE SYLLABUS (CLASS XI)

JULY-

- Data Representation
 - Numeral Systems
 - Digital Number Systems
 - Number Conversions
 - Floating and Binary Representation of Numbers
 - Binary Arithmetic
 - ISCII & UNICODE
- Propositional Logic & Hardware
 - Propositional Logic
 - Basic Logic Gates
 - More about Logic Gates
 - Applications of Logic Gates

AUGUST-

- Functions (Methods)
 - Function / Method Definition
 - Call by value & Call by reference
 - Returning from a function
 - Pure and Impure functions
 - Function overloading
 - Constructors – Types of Constructors
 - The this keyword
 - Constructor overloading
 - Recursive functions
 - Recursion in Java

SEPTEMBER-

- Revision

ANNUAL

OCTOBER-

- Internal Functioning of Computer
 - Functional Unit and System Clock
 - Flip-Flops and Memory
 - Memory Organization
 - External Bus

NOVEMBER-

- Java Fundamentals (Same as Term I Syllabus)
- Flow of Control (Same as Term I Syllabus)

COMPUTER SCIENCE SYLLABUS (CLASS XI)

DECEMBER-

- Functions (Methods) (Same as Term I Syllabus)
- Arrays
 - Need for Arrays
 - Types of Arrays
 - Searching & Sorting
 - Advantages and Disadvantages of Arrays

JANUARY-

- Using Library Classes
 - Simple Input / Output
 - Exception Handling
 - Wrapper Classes
 - Working with Strings
 - Packages in Java
- Simple Data Structures
 - Singly Linked Lists
 - Stack as an Array & Linked List
 - Queue as an Array & Linked List
 - Variations in Queues

FEBRUARY-

- Revision