SYLLABUS 2019-2020

Class : XII

Subject : COMPUTER SCIENCE

Book : COMPUTER SCIENCE WITH JAVA (SUMITA ARORA)

Publisher : DHANPAT RAI AND CO.

Term 1

1. Boolean algebra and computer hardware
    * Propositional logic
    * Binary valued quantity
    * Theorems, duality
    * K-map
    * Simplification of equations
    * Application of gates
    * Basic laws and demorgan's law
2. Revision of programming (class XI)
    * Arrays (s.d.a and d.d.a)
    * Methods , strings , files and recursion
    * Call by value / reference (passing objects)

Term 2

1. Chapter 12 : Concept of inheritance
    i) Need of inheritance
    ii) Types of inheritance
    iii) Super keyword
    iv) Abstract class and interface
    v) Method overriding
2. Chapter 13 : Exception handling
    i) Try , catch and finally block

ii) Various types of exceptions

3. Chapter 14 : Simple data structure
   i) Linear stack and linear queue
   ii) Single linked list
4. Chapter 10: Operation on files
   i) Operations using text files
   ii) Operations using binary files

Term 3

1. Chapter 14 : Recursive data structure
   i) Introduction to recursive data structure
   ii) Linked list
   vi) Trees / Tree traversal
   vii) Algorithms of data structure
2. Chapter 16: Computational complexity
   i) Big O notation
   ii) Estimation of complexity / analysis

Term 4

1. Revision of whole syllabus
2. Assignment for board practical exam
3. Assignment for project file
4. Problem solving