Maharashtra State Board of
Secondary & Higher Secondary School, Pune

Department Of Computer Science

Subject : Computer Science - I (D9)
Std : Twelve
Faculty : Science

* Syllabus*

XII Computer Science Software Paper-I (Theory & Practical)

Theory Index

Sr. No.	Topic	Weightage
1.	**Operating Systems**	22
2.	**Data Structures**	17
3.	**C++ Programming**	41
4.	**HTML**	14

Syllabus

Sr. No.	Name of the Topic	Scope of Syllabus
1.	**Operating Systems**	• What is Operating System? • Services in OS • Overview of OS:Windows 98, Windows NT, LINUX • Concept related to Information management (Only definition) • File System, Device Drivers, • Terminal I/O • Concepts related to process management (Only definition) • Process, Multiprogramming, • Context Switching, Process States, • Priority, Multitasking, Timesharing. • Concepts Related to Memory Management (Only definition) • A typical map for single user computer, Partitioning, Fixed & Variable Partitioning, Paging, Segmentation, Virtual memory. •GUI: Basic GUI features such as Windows, Task List, Drag, Resize, Close, Minimise, Maximise. • Access and Security aspects of OS • Security Threats, Attacks on Security, Computer Worms,Computer Viruses.

2.	**Data Structures**	• Introduction to Data Structures, Data Structure. • Arrays - representation in memory, traversing, inserting, deleting, sorting, binary search in an array.Pointers arrays, Records in memory using arrays. • Link List, Representation of link list in memory. • Trees, Binary tree, representing Binary tree in memory.
3.	**C++ Programming**	• Principle of Object Oriented Programming • Classes and Objects • Constructors and Destructors • Inheritance • Multiple Inheritance • Virtual Functions and Polymorphism • Friends in C++ • Operator Overloading and type conversion • Type conversions • Working with files and streams • File handling in C++
4.	**HTML**	• Introduction to HTML • Why HTML Tags:<HTML>,<HEAD>,<TITLE>,<BODY>,<P>, ,<UL>,<LI>,<PRE>,<MARQ>,<UEE>, • Font Styles • <B>,<I>,<U>,<BIG>,<SMALL>,<SUB>,<SUP>,<FONT>, • Images <HREF>,<HR>,<IMG>,SRCALT,HEI GHT,WIDTH,ALIGN • List in HTML • Tables <TABLE>,<CAPTION>,<TR>,<TH>,<TD> • HTML scripts (Note: Only VB Script using FOR.NEXT. IF..THEN..ELSE, MsgBox, In Box, DIM, SET)
	Paper-I Practicals	C++ Programming HTML VB

	Question Papers I and II	HSC Board Papers for Paper-I and II March2002-March2004,2008	

Practical Index

Sr. No.	Practical's Name
	Html Program
1.	Write a html program to create website for college.
2.	Write a HTML program to generate following output. (Using List tag)
3.	Write a HTML program to generate the following table structure.(using tablettag)
	Visual Basic Program
4.	Write a visual basic program that performs arithmetic operations
5.	Write a visual basic program to calculate sum of first n numbers using whileloop.
6.	Write a visual basic program to transfer and remove list item
7.	write a visual basic program for using option button.
8.	write a visual basic program to select shape and calculate the area.
	CPP Program
9.	Write a C++ program to display Fibonacci series of given no.
10.	Write a C++ program to calculate area and circumference of circle using class.
11.	Write a C++ program to implement the following class hierarchy :class studentto obtain roll number. class test to obtain marks scored in two different subjects. Class sports to obtain weightage(mark) in sports and class result to calculate the marks. the program must print the roll number ,individual marks obtainted in two subject ,sports and total marks.
12.	Write a C++ program to reverse the given string using operator overloading.
13.	Write a C++ program to demonstrate constructor and destructor
14.	Write a C++ program to demonstrate virtual function.
15.	write a C++ program to sort numbers in descending order using Bubble-sortmethod.

References:
1. TPS Computer Science-I (Prof. Preyas Chinchure, Prof. ShwetaJawale,)
2. XII Computer Science
   Computer Software (P-I), A Text Book on Theory & Practical,
   F.Y.J.C Bifocal Computer Science JEE Based Text Book (Paperback,
   R.D.Supekar