COMPUTER SCIENCE
PAPER - I (D-9)

| Time : 3 Hours | 4 Pages | Max. Marks : 50 |

Instructions : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.
(3) Use of any type of calculator not allowed.
(4) Draw a neat diagram whenever necessary.

1. Select the correct alternative and rewrite the sentence :

(a) _____ tag is used for scrolling the text on WebPage.   1

    (i) <Head>

    (ii) <UL>

    (iii) <MARQUEE>

    (iv) <SUP>

(b) _____ is a free operating system.   1

    (i) Unix

    (ii) Windows

    (iii) LINUX

    (iv) DOS

(c) _____ is a mechanism to achieve run time polymorphism.   1

    (i) Operator Overloading

    (ii) Virtual Function

    (iii) Function Overloading

    (iv) Constructor

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(d) Finding the location of given element is called as _____.   1

     (i) Searching

     (ii) Sorting

     (iii) Traversing

     (iv) Inserting

(B) Answer **any two** of the following :

     (a) Explain the following components of GUI :   3

          (i) Menu Bar

          (ii) Scroll Bar

          (iii) Title Bar

     (b) Write three distinct differences between Array and Linked List.   3

     (c) Write any three advantages and disadvantages of HTML.   3

2. (A) Answer **any two** of the following :

     (a) Define Data Structure. Explain any four operations of Data Structure.   3

     (b) Write any three distinct differences between Procedure Oriented and Object Oriented Programming.   3

     (c) Write an algorithm to insert an element into linear array.   3

(B) Answer **any one** of the following :

     (a) Defined following term of operating system :   4

          (i) External Priority

          (ii) Internal Priority

          (iii) Purchase Priority

          (iv) Time Slice

     (b) Write declaration statements in C++ for :   4

          (i) Pointer to float type

          (ii) An array of 10 real numbers

          (iii) An array of 80 characters

          (iv) An object of class student

3. (A) Answer **any two** of the following :

   (a) Explain following tags with example :   3

     (i)

     (ii)   <PRE>

     (iii) <U>

   (b) What is the function of Information Management ? List any four system call in it.   3

   (c) What is Constructor ? Write any four rules for constructor function.   3

 (B) Answer **any one** of the following :

   (a) What is Binary Tree ? Draw Binary Tree for following expression :   4

$$Y = (A + B) / (C - D)^2$$

   (b) Explain in short, any four ways by which system security can be attacked.   4

4. (A) Answer **any two** of the following :

   (a) What is Class ? Explain general form of class declaration.   3

   (b) What is Partitioning ? Explain fixed and variable partitioning of short.   3

   (c) Write the function of each of the following file stream classes :   3
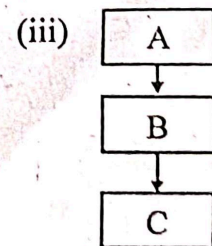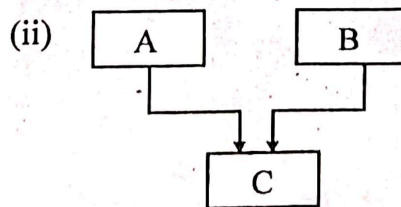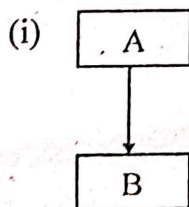
     (i)   ifstream

     (ii) ofstream

     (iii) filebuf

 (B) Answer **any one** of the following :

   (a) What is Inheritance ? Identify the types of inheritance of following diagram :   4

    (i) A → B   (ii) A, B → C   (iii) A → B → C

   (b) What is Virtual Memory ? Explain following terms in virtual memory :   4

     (i)   page fault

     (ii) dirty page

5. Answer **any two** of the following :

(a) Write a program in C++ to find Greatest Common Devisor (GCD) of two inputted number.   5

(b) Write a program in C++ to accept 10 integers in an array from keyboard and find largest element of array.   5

(c) Write HTML program for following table :   5

IND v/s ENG

IND 387	Yuvraj 183*
	Dhoni 83
ENG 238	Peterson 58
	Bopara 49
IND WIN by 149 Runs	

OR

5. Answer **any two** of the following :

(a) Write a program in C++ to create a class test having member functions getmarks ( ) to read marks of two subjects and showsum ( ) to display the total marks.   5

(b) Write a program in C++ to read three integers and find smallest of these numbers.   5

(c) Write HTML code to display following output :   5

LIST tag in HTML

o Arts
 1. Hindi
 2. Marathi
o Commerce
 ▪ Tally
 ▪ Accounts
o Science
 A. Physics
 B. Chemistry

_____