Q.1 (A)   Select correct alternative and rewrite the following :   (4)

a)   The time required to move R/W head to the particular track is called
_____
i)   Latency Time   ii) Seek Time
iii) Waiting Time   iv) Response Time

b)   _____ data structure does not require contiguous memory allocation.
i)   Array   ii) String
ii) Pointer Array   iv) Linked list

c)   Object oriented programming uses _____ approach of programming.
i)   Linear   ii) Non-linear
iii) Top down   iv) Bottom up

d)   The valid attribute of <A> is _____.
i)   NAME   ii) SRC
iii) BGCOLOUR   iv) HEIGHT

(B)   Answer any two of the following ;   (6)
a)   What is virtual memory ? Explain any two elements of virtual memory.
b)   What a Data structure ? Define array and pointer array in data structure
c)   Give function of following tags with an example of each.
     (i) <IMG>   (ii) <EM>   (iii) <DL>

Q.2 (A)   Answer any two of the following   (6)

a)   Give three differences between WORM and VIRUS.
b)   Write an algorithm to find smallest element in an array.
c)   Define the following terms in C++ :
i) Data Abstraction   ii) Operator overloading
iii) Data encapsulation

(B)   Answer any one of the following ;   (4)
a)   What is system Call ? List any two system calls for memory management.
Process management and information management.
b)   What is virtual function C++ Give any six rules to write virtual functions.

Q.3 (A)   Answer any two of the following :   (6)
a)   Explain multiuser and time sharing operating systems.
b)   Define
i) Tree   ii) Binary Tree   iii) Extended binary tree

c) What is function overloading ? Give examples of function overloading.

(B) **Answer any one of the following :** **(4)**
   a) Write an algorithm for binary search method. Explain algorithm with suitable example.
   b) What is constructor and destructor in C++ Give example of construction and destructor in a class.

Q.4 **(A)** **Answer any two of the following :** **(6)**

   a) What is file system? List and explain types of file systems used in OS.
   b) With suitable example explain how tree can be represented in memory ?
   c) What is inheritance ? Explain any two types of inheritances with memory.

(B) **Answer any one of the following :** **(4)**

   a) Give features of windows 98 operating system
   b) What is Liked List ? How they can be represented in memory ?

Q.5 **Answer any two of the following :** **(10)**

   a) Write a program in C++ to accept two integer values in main function, pass them to function great () using call by value and find greater number, function great () should not return any value.
   b) Write a program in C++ to accept three integers from keyboard and find greatest number with using condition control.
   c) Write HTML code to display following output :

                                    OR

Answer any two of the following :

   a) Write a program in C++ to accept a string from keyboard and copy string into another string without using the library function.
   b) Write a program inC++ to find area of circle using class
   c) Write a programming in HTML for the following output
      (i) Arts
          A) History   B) Geography
      (ii) Science
          I) Computer Science   II) Physics
      iii) Commerce
          o) English   0) Accounts

                    _____