

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

1. The time lost in turning the attention of processor from one process to another is called as ----- 01
  - i. Circuit switching
  - ii. Band width
  - iii. Context switching
  - iv. Packet switching
2. A record is collection of ----- 01
  - i. Files
  - ii. Arrays
  - iii. Fields
  - iv. Maps
3. If all visibility labels are missing then by default members of class are ----- 01
  - i. Public
  - ii. Protected
  - iii. Private
  - iv. Void
4. ----- tag is used to put a line break in HTML code. 01
  - i. <HR>
  - ii. <BR>
  - iii. <P>
  - iv. <LI>

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

1. What is friend function? Write any four characteristics of friend function. 03
2. Explain in short the three special characteristics of static data member in a class. 03
3. Discuss virus detection, virus removal and prevention philosophies. 03

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

1. Explain with flowchart the following control structure 03
  - i. Sequence logic
  - ii. Selection logic
  - iii. Iteration logic
2. Explain bubble sort algorithm with suitable example. 03
3. What functions are performed by memory management of operating system? State any four memory management systems. 03

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

1. What is operator function? Describe the syntax of an operator function. Explain the difference between operator function as the member function and friend function. 04
2. With reference to process management, explain the term. 04
  - i. External priority
  - ii. Purchased priority
  - iii. Internal priority
  - iv. Time slice

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

1. Write difference between linear search and binary search. 03
2. Explain different types of inheritance with suitable diagram. 03
3. How linked lists are represented in memory? 03

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

1. Define the following terms with reference to tree. 04
  - i. Root
  - ii. Leaf
  - iii. Sibling
  - iv. Depth
2. What is computer virus? What are the different methods by which virus can infect other programs? 04

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

1. With syntax and diagram, explain structure of HTML webpage. 03

2. Explain the concept of function overloading with example 03
3. Explain any three features of windows-NT operating system. 03

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

1. State the various steps involved in the allocation of partition in case of fixed partition memory management. 04
2. Explain the use of scope resolution operator and memory management operators in C++ with examples. 04

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

1. Write a program in C++ to read a set of 10 numbers from keyboard and find out largest number in the given array. 05
2. Write a program in C++ to find factorial of entered number. 05
3. Write a code in HTML for the following table. 05

Computer	Paper I	Paper II	Total
Science	100	100	200

OR

1. Implement class GCD which has member function (a/c), which calculates greatest common divisor of two numbers entered during program execution. Print () will print GCD of two numbers. 05
2. Write a program in C++ to display a series of 15 term of the Fibonacci Series. 05
3. Write the exact output of the following HTML code with font specification in bracket. 05

```
<html>
<head><title> Introduction </title>
<body>
<h1><b> Computer Science </b></h1>
<hr>
<u> Paper-1 </u>
<hr>
<u> Paper-2 </u>
</body>
</html>
```