

- 1) All the questions are Compulsory.
- 2) Draw a neat labeled diagram whenever necessary.
- 3) Figs to the right indicate full marks.
- 4) Use any type of calculators is not allowed.
- 5) Header file and comments in C++ program are not necessary.

Q.1 A) Select the correct alternative and rewrite the following statements.**[1 marks each]**

- a) The operation of arranging the each element in the list is known as _____.
a) Trasversing b) Searching c) Sorting d) Deletion
- b) In C++, double, types of data consume _____ bytes in memory.
a) 2 b) 4 c) 8 d) 16
- c) To make hyper link of text attribute is used _____.
a) href b) src c) url d) alt
- d) Object oriented programming follows _____ approach.
a) top down b) bottom up c) both d) None

B) Answer any two of the following**[Each of 3 marks]**

- a) What is data structure? Explain the types of data structure with example.
- b) Define the class and object with proper example of each.
- c) What are the different ways to define member function of the class? Explain and give example.

Q.2 A) Answer any two of the following.**[3 marks each]**

- a) How we can access local and global data? Explain by one example.
- b) What is new and delete keyword? Explain by example.
- c) Explain the following tag
1) <marquee> 2) <sup> 3) <pre>

B) Answer any two of the following.**[4 marks each]**

- a) Write difference between linear search and binary search.
- b) What is Tag? Explain any three-tags that has no ending tag.

Q.3 A) Answer any two of the following.**[3 marks each]**

- a) State three characteristics of static data member.
- b) Explain <table> tag with proper example.
- c) Differentiate between call by value and call by reference.

B) Answer any two of the following.**[4 marks each]**

- a) Write and Explain Bubble Sort algorithm with example,
- b) What is function overloading? Explain by one example.

Q.4 A) Answer any two of the following.**[3 marks each]**

- a) Write any three advantages and disadvantage of HTML.
- b) What is pointer? How the memory address of a variable can be accessed with the help of Pointer. Give one proper example.
- c) State and explain six data structure operation.

B) Answer any two of the following.

[4 marks each]

- What is friend function? Write any 3 characteristics of friend function.
- Explain the structure of HTML program.

Q.5. Answer any two of the following.

[5 each]

- Write a C++ program to print the entered string in reverse order using function, which first locates the end of string. Then it swaps the first character with the last character, the second character with second last and so on.
- Write a program in C++ to enter 5 numbers in an array and find the smallest element present in that array.
- Write the html code for the following table.

B.Sc.(CS)				
Computer Science	FYBSC	SYBSC	TYBSC	TOTAL
	60	60	60	180

OR

- Write a program in C++ to enter a sentence from the user. Find space and replace that space with '\$'.
- Write a program in C++ to print area of sphere using class [Hint: Area = $\pi \cdot r \cdot r \cdot h$].
- ```
<html> <body> <h2> List of Books</h2><hr>
<ul type ="circle"> Data structure
 C++ Programming
 Microprocessor
</body></html>
```

Draw the HTML output of the above code.