

COMPUTER SCIENCE

Paper : A03 (Object Oriented Programming) (Using C++)

Time Allowed : 3 Hours

Max. Marks: 65

Note : Attempt *five* questions in all, selecting at least *one* question from each Sections (A to D) . Section E (Question No.9) is compulsory. Each question is of 13 marks.

SECTION-A

1. What is object oriented programming? Explain Encapsulation, Inheritance and Polymorphism with suitable examples. 13

2. What do you mean by C++? Write the help of a diagram, explain the structure of a C++ program. Draw the difference between public and private members with suitable examples. 13

SECTION-B

3. What is a Function? How can you define member function inside and outside Class? Write a Program in C++ to illustrate the concept of friend function. 13

4. Define Constructor. Explain different types of constructor with suitable examples in C++. 13

SECTION-C

5. Explain multilevel inheritance with the help of a diagram. Write a Program in C++ for multilevel inheritance. 13

6. What do you mean by Function Overloading? How can you declare and define overloaded functions? Explain with a Program in C++. 13

SECTION-D

7. Draw the difference between early binding and late binding in context of Polymorphism. Explain the concept of virtual function. 13

8. Explain various file operations in C++ with suitable examples. 13

SECTION-E

(Compulsory Questions)

9. Write short notes on the following :
- | | |
|-------------------------------|----|
| (a) Pure virtual Function | 3* |
| (b) Destructor | 2 |
| (c) Scope resolution operator | 2 |
| (d) Data hiding | 2 |
| (e) Keywords | 2 |
| (f) Switch statement in C++ | 2 |