Exam. Code : 105702
Subject Code : 1425

B.Sc. (Information Technology) 2nd Semester

INTRODUCTION TO PROGRAMMING–C++

Paper–II

Time Allowed—3 Hours]　　　　　[Maximum Marks—75

Note :— Candidates are required to attempt **five** questions in all selecting at least **one** question from each section.

SECTION—A

1. Explain the various characteristics of object oriented programming languages. Discuss in detail various advantages and disadvantages of object oriented programming languages. 15

2. (a) What is a scope resolution operator ? What part does it play in definition of member function ? 5

   (b) How the data members and member functions designated as private, public and protected are accessed? 5

   (c) What are the nested member functions ? Explain with the help of an example. 5

SECTION—B

3. What do you mean by constructor ? What are various types of constructors ? Discuss in detail. 15

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4. What do you mean by destructor ? List various properties of destructors. What are virtual destructors ? What are the rules for destructors ? 15

SECTION—C

5. (a) What is function overloading ? How is it desirable feature of C++ ? 7.5

   (b) How can default arguments be passed to a function ? Explain with the help of an example. 7.5

6. What is operator overloading ? Why is it necessary to overload an operator ? How many arguments are required in the definition of an overload unary operator ? Explain with an example. 15

SECTION—D

7. Define inheritance. What are the various types of inheritance ? Explain giving examples. 15

8. Write short notes on the following :

   (a) Virtual function 5

   (b) Friend function 5

   (c) Static function. 5