

Roll No.

Exam Code : J-22

Subject Code—55634

B.Sc. EXAMINATION

(Main/Reappear) (Batch 2018 Onwards)

(Fifth Semester)

COMPUTER SCIENCE

CCsL-503 Paper I

Object Oriented Programming Using 'C++'

Time : 3 Hours

Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit in addition to compulsory Q. No. 1. All questions carry equal marks.

1. Define the following : 8×2=16

- (i) Manipulators
- (ii) Application of OOP
- (iii) Friend Class

- (iv) Member function
- (v) Destructors
- (vi) Function overloading
- (vii) Single inheritance
- (viii) Multilevel inheritance.

Unit I

2. Describe OOP. What are its major characteristics ? How is it different from procedural programming ? 16
3. What are inline functions ? What is the need of making function inline ? Also write the situations where inline expansion may not work. 16

Unit II

4. What is friend function ? What are the merits and demerits of using friend function ? Explain with example. 16

5. Define static data members. What is the need of declaring member of a class static ? Write a program that illustrate the use of static function. 16

Unit III

6. Define operator overloading. What are the various restrictions in operator overloading ? Write a program in C++ to overloaded binary operator. 16
7. What is Constructor ? Explain various types of constructor with example. 16

Unit IV

8. What do you mean by Inheritance ? Describe its various types. Explain by example. 16
9. What are the virtual base class and abstract ? Explain with example. 16