Subject Code—52621

B. Sc. EXAMINATION

(Main) (Batch 2018)

(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. Q. No. **1** is compulsory. All questions carry equal marks.

1. Define the following :

(i) Inline functions

(ii) OOP

(iii) Static data members

(iv) Fiend function

(v) Constructor

(vi) Function overloading

(vii) Virtual base class

(viii) Abstract class. **8×2=16**

Unit I

2. In what ways Object-oriented programming paradigm is better than structured programming paradigm ? Explain benefits of OOP. **16**

3. Explain structure of a C++ with example. Differentiate between procedure oriented and object oriented programming. **16**

Unit II

4. What do you understand by static member functions of a class ? Discuss their characteristics. Give an example where you can justify the use of static member functions. **16**

5. What is a class ? How is it created ? Why memory allocation for objects is needed ? Illustrate with the help of example. **16**

Unit III

6. What is Operator Overloading ? Explain the conditions where operator overloading is necessary. Also write a program in C++ to overload unary operator. **16**

7. Define Destructors. What are the advantages of using new and delete operators as compared to the malloc() and calloc() ? **16**

Unit IV

8. What is the significance of making constructors in a derived class ? Explain with example. **16**

9. Explain different types of inheritance with block diagram and an example for each. **16**