

322455(22)

**B. E. (Fourth Semester) Examination,
April-May 2016**

(New Scheme)

(CSE Branch)

**OBJECT ORIENTED CONCEPTS & PROGRAMMING
USING C++**

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

*Note : All questions are compulsory. Part (a) of all
questions is compulsory. Attempt any two parts
from (b), (c), (d).*

Unit-I

1. (a) What is data hiding?

2

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- (b) Explain the basic programming structure of object oriented programming. 7
- (c) Explain the different characteristics of object oriented programming language. 7
- (d) Explain function overloading concept with suitable program. 7

Unit-II

2. (a) Define << and >> operator. 2
- (b) Explain different types of manipulators in C++. 7
- (c) Write a program for friend class. 7
- (d) Write short notes on : (any two) $2 \times 3\frac{1}{2} = 7$
- (i) Nested classes
 - (ii) Local classes
 - (iii) Abstract classes

Unit-III

3. (a) Write difference between constructor and destructor. 2
- (b) Explain dynamic memory management in C++. 7
- (c) Explain copy constructure with program. 7

- (d) Write short notes on :

- (i) this pointer 2
- (ii) wild pointer 2
- (iii) null pointer 1
- (iv) void pointer 2

Unit-IV

4. (a) Define polymorphism and inheritance. 2
- (b) Explain different types of inheritance in C++. 7
- (c) Write a C++ program to add two complex numbers using operator overloading concepts. 7
- (d) Explain the ambiguity associated with multiple inheritance. 7

Unit-V

5. (a) Define error and exception. 2
- (b) Explain virtual function with program. 7
- (c) Illustrate and explain template function. 7
- (d) Explain the hierarchy of file stream classes. 7