

Roll No.

67015

**M.C.A. Ist Sem. w.e.f. Dec. 2011
(with old notes)**

Examination-December, 2014

Object Oriented Programming Using C++

Paper-MCA-105

Time : 3 hours

Max. Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all, selecting at least **one** question from each unit. All questions carry equal marks.

Unit-I

1. (a) What is Encapsulation ? How it can be used in C++ programming ? Explain with an example. 9

(b) Explain Arrays, Structures, and String with suitable example. 7

2. What is origin of object oriented programming ? Why this language is better than procedure oriented programming ? Explain their advantages and disadvantages with segments in C++. 16

Unit-II

3. What do you understand by inheritance ? How code can be reused in inheritance ? Explain its types with example 16

4. (a) Define Constructor. Explain derived classes using suitable example. 10

(b) What is Destructor ? Where it has been used? Explain with an example. 6

Unit-III

5. What is Operator Overloading ? Differentiate between overloading of unary operator using friend function and without using friend function. 16

6. Write notes on the following:
- (a) Unexpected Exception 5
 - (b) Rethrowing an Exception 5
 - (c) Catch-all exception handlers 6

Unit-IV

7. What are templates ? How are these useful ? How overriding of template functions. Explain using suitable example with their advantages. 16
8. What do you know about C++ design and development? Explain role of classes in design of software with C++ example. 16
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