

# END TERM EXAMINATION

SECOND SEMESTER [MCA] MAY JUNE 2016

Paper Code: MCA-104

Subject: Object Oriented Programming  
in C++

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.No1 which is compulsory.

- Q1 Answer the following:-
- (a) Write a brief history about C++. Explore its formulation and applicability. (7)
  - (b) What is Object Oriented Programming (OOP)? (6)
  - (c) Explain briefly the features of OOP. (6)
  - (d) Differentiate between C and C++. (6)
- Q2
- (a) Differentiate between Encapsulation and Abstraction. (5)
  - (b) What is meant by *message passing* and *dynamic binding*? (7.5)
- Q3
- (a) What is Polymorphism? Explain with an example. (5)
  - (b) What are pointers? Explain their usage with an example. (7.5)
- Q4
- (a) Define operators and their types. (5)
  - (b) Elaborate *constructors* and *destructors*. Discuss their types. (7.5)
- Q5
- (a) What are *access modifier* and *scope resolution operator*? Provide an example for each. (7.5)
  - (b) Explain *friend function* quoting an example. (5)
- Q6
- (a) Define Inheritance. Explore the types of inheritance. (7.5)
  - (b) What are the types of Polymorphism? (5)
- Q7
- (a) Quote an example of input procedures in relevance to *files*. (5)
  - (b) What are exceptions? Explain their management. (7.5)
- Q8
- (a) What is *generic programming*? (5)
  - (b) Elaborate classes, data structures, and functions in the view of generic programming. (7.5)
- Q9
- (a) Exemplify *binary search* using *template function*. (7.5)
  - (b) Write short note on Standard Template Library (STL). (5)

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