

**BACHELOR OF COMPUTER APPLICATIONS
(BCA) (Pre-Revised)**

Term-End Examination

00531

June, 2017

**CS-72 : C++ AND OBJECT ORIENTED
PROGRAMMING**

Time : 2 hours

Maximum Marks : 60

Note : *Question number 1 is compulsory. Attempt any three questions from the rest. All examples must be in C++ programming language only.*

1. (a) What is object oriented programming ?
Explain any two advantages of it. 5
- (b) Explain the differences between inline functions and macros in C++. Give examples of each. 5
- (c) What is a constructor ? Explain the advantages of a constructor with the help of an example. 5
- (d) Write a C++ program to create a class 'Salary' to manage the salary of an employee. Write a constructor and methods for computing tax at the rate of 10% of salary and display of the salary and tax. 10
- (e) Differentiate between call by value and call by reference with the help of examples. 5

2. (a) What is inheritance ? Explain different types of inheritance supported by C++. 5
- (b) Explain various data types in C++. 5
3. (a) What are templates ? Explain with the help of an example. 5
- (b) What is function overloading ? Write a C++ program to overload sum function for finding the sum of two integer values and two real numbers. 5
4. (a) Write a C++ program to perform the following operations without using library function : 6
- (i) Find the length of a string
- (ii) Find the reverse of a string
- (b) Explain the concept of virtual functions with the help of an example. 4
5. Explain the following with the help of examples : $4 \times 2 \frac{1}{2} = 10$
- (a) This Pointer
- (b) Scope Resolution Operator (: :)
- (c) Information Hiding
- (d) Ternary Operator (? :)
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