BCS-031(S)

BACHELOR OF COMPUTER APPLICATIONS (BCA) (Revised)

Term-End Examination

December, 2018

065533

BCS-031(S) : PROGRAMMING IN C++

Time : 3 hours   *Maximum Marks : 100*

(Weightage : 75%)

*Note : Question no. 1 is **compulsory** and carries 40 marks. Attempt any **three** questions from the rest.*

1. (a) Write four advantages and four disadvantages of structured programming.   *8*

    (b) Differentiate between information hiding and encapsulation with an example.   *4*

    (c) What are the operators in C++ ? Explain with an example.   *8*

    (d) Write a program in C++ to demonstrate the use of Switch statement.   *6*

    (e) Explain class templates and function templates with illustrations.   *10*

    (f) What are the benefits of inheritance ? Explain in brief.   *4*

2. (a) What is inline function ? Explain its advantage with an example. *6*

(b) Write a C++ program to find out the sum of n numbers, by defining proper class, constructor and methods. *10*

(c) Explain the use of **nested if** statement with the help of an example. *4*

3. (a) Define Member function and Friend function. Write the purpose of each. *8*

(b) Write a C++ program to demonstrate how objects are passed as an argument. *7*

(c) Write a program in C++ to find the factorial of a given number. *5*

4. (a) What do you mean by constructor overloading in C++ ? Explain with the help of an example. *10*

(b) What is copy constructor ? Illustrate the use of copy constructor with help of a program in C++. *10*

5. Write brief notes on the following : *4×5=20*

(a) Message Passing

(b) Polymorphism

(c) Type Conversion

(d) File Pointers and Operations