(4)

(b) What do you understand by storage class

specifier? 5 Write short notes on the following with examples in C++: 15 Call by value (ii) Call by reference Unit-IV Write short notes on the following with examples in C++: 15 File handling in C++ (ii) Stack and queue (a) Write an Overloading function for computing area of triangle, Circle and rectangle. 10 (b) Explain the following: 5 (i) EOF Stdin

A (Printed Pages 4)

Roll. No. \_\_\_\_\_

## SFS-4703

B.C.A. (Semester-IV) Examination, 2015 (Old Course)

C++ & Object Oriented Programming (BCA-401)

Time Allowed: Three Hours | [Maximum Marks: 100]

Note: Answer five questions in all. Question No.1 is compulsory. Attempt one question from each Unit I,II,III and IV.

- 1. Answer each of the following :  $4 \times 10 = 40$ 
  - (a) What is the difference between function and operating overloading? Also give one example of each.
  - (b) Explain the need of inheritance and list any 3 advantages of it.
  - (c) What are the advantages of the text file and binary file?

(2)

- (d) Differentiate with example between classes and objects.
- (e) What is the purpose of # include statement?
- (f) Differentiate between Structures and Unions in C++.
- (g) Define Inline function.
- (h) Write the difference between static and dynamic memory allocation.
- (i) What is external and static variable?
- (j) Explain multiplicity with examples.

Unit-I

- Explain the following with suitable examples inC++: 15
  - (i) Encapsulation
  - (ii) Data Hiding
  - (iii) Operator precedence
  - (iv) Copy Constructor
  - (v) Generalization
- (a) Write a program in C++ to check whether the given integer Number is prime or not.

7½

(3)

(b) Write a program in C++ to find the sum of all odd numbers between 10 to 100.

7 1/2

## Unit-II

- Discuss the following with suitable examplesin C++: 15
  - (i) Nested classes
  - (ii) Friend function
  - (iii) Static class member
  - (iv) go to
  - (v) Public class
- (a) Write a program in C++ to check whether
   the given string is a Palindrome or not.

10

(b) Explain the concept of pointers in C++ in brief.5

## Unit-III

(a) Write a C++ program to calculate the factorial of any number Through the pointer.

10