



K17U 1072

Reg. No. : .....

Name : .....

**II Semester B.C.A. Degree (CBCSS – Reg./Supple./Imp.)**  
**Examination, May 2017**  
**Core Course**  
**2B03 BCA : OBJECT ORIENTED PROGRAMMING USING C++**  
**(2014 Admn. Onwards)**

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. One word answer :

- a) The wrapping up of data and functions into a single unit is called \_\_\_\_\_
- b) In C++, \_\_\_\_\_ provides an alternative name for a previously defined variable.
- c) The manipulator << endl is equivalent to \_\_\_\_\_
- d) In C++, the concept of \_\_\_\_\_ provides a facility to call a function without specifying all its arguments.
- e) If A represents a class, then the phrase A::\* means \_\_\_\_\_
- f) \_\_\_\_\_ is a special member function which enables an object to initialize itself when it is created.
- g) In C++, the mechanism of giving a special meaning to an existing operator is known as \_\_\_\_\_
- h) To open an existing file for updating without losing its original contents, the file should be opened in \_\_\_\_\_ mode. (8×½=4)

SECTION – B

Write short notes on **any seven** of the following questions.

2. Distinguish between dynamic binding and message passing.
3. List any two properties of static data members.
4. How new operator is different from malloc() function ?

P.T.O.



5. Write the syntax to define an inline function outside to the class definition.
6. Write any two important characteristics of a constructor function.
7. What is containership ?
8. How a static member function is different from an ordinary member function ?
9. Write the syntax of an overloaded casting operator function.
10. Define an abstract class.
11. What is a stream ? Name any two streams generally used for file I/O. (7×2=14)

#### SECTION – C

Answer **any four** of the following questions :

12. Explain the merits of an OOP language compared to conventional programming languages.
13. Write a program in C++ to add two complex numbers using operator overloading.
14. Explain the use of private, public and protected access specifiers.
15. Differentiate between constructor and destructor functions with respect to object oriented programming.
16. Write a C++ program to implement multiple inheritance.
17. Write a function COUNT\_TO() in C++ to count the presence of a word 'to' in a text file "NOTES.TXT". (4×3=12)

#### SECTION – D

Write an essay on **any two** of the following questions. :-

18. Explain different types of inheritance with example.
19. Write a C++ program to perform the following operations on a string class without using built-in string functions.
  - a) Reverse the string
  - b) Concatenate two strings.
20. Explain different types of type conversion.
21. Write short notes on :
  - a) Friend functions.
  - b) Significance of virtual base classes. (2×5=10)