**UN – 201**

### III Semester B.A./B.Sc. Examination, Nov./Dec. 2015
### (Semester Scheme)
### (70 – 2012-13 and Onwards) (60 – Prior to 2012-13)
### COMPUTER SCIENCE – III
### OOPS using C++ and DBMS

Time : 3 Hours        Max. Marks : 70(R)/60(R)

**Instructions** : 1) **Repeaters (2012-13 onwards)** have to answer
Section (**A, B, C, D**).
2) **Repeaters (Prior to 2012-13)** have to answer
Section (**A, B, C**).

### SECTION – A

I. Answer **any 10** questions :        (1×10=10)

  1) Define DBMS.

  2) Name the different methods used to format output in C++.

  3) Define inheritance.

  4) What is scope-resolution operator ?

  5) What is a query ? Expand SQL.

  6) List the operators that cannot be overloaded.

  7) What is DDL ?

  8) Write any 02 characteristics of OOPs.

  9) List all the DML commands.

  10) Define :

     a) Weak entity        b) Key attribute.

  11) Define database decomposition.

  12) What is non-operator overloading ?

### SECTION – B

II. Answer **any 5** questions :        (3×5=15)

  1) What are manipulators ? Explain any 3 manipulators used.

  2) What are static member functions ? Explain.

3) Differentiate between structure and class.

4) Discuss about the memory management operators in C++.

5) Explain the functions of DBMS.

6) Explain any six aggregate functions used in SQL.

7) What is data independence ? Explain the different types of data independence.

## SECTION – C

III.  Answer **any 5** questions :                                    (7×5=35)

1) Explain the relationship of a class and an object in C++ with suitable eg. Write a program to create a student class that reads and displays student data for 'n' students, where n = no. of students. (Use appropriate data members and member functions).

2) What are default arguments ? How are they passed to a function ? Explain with suitable example.

3) Explain FRIEND function with example.

4) Write a note on different types of SQL statements.

5) What is a relation ? Explain the different types of relation.

6) Write a short note on DBMS users.

7) Define DBA. Explain role, responsibilities and functions of DBA.

## SECTION – D

IV.  Answer **any 1** question :                                    (10×1=10)

1) Define constructors and destructors. Name and explain the different types of constructors used in C++. How do constructors differ from normal functions ? Write a C++ program for an employee class that reads and displays the employee information using constructors and destructors. (Use necessary data members and member functions).

2) Define data model. Explain briefly the different types of data models.