Roll No ....

MCA - 303

MCA. III Semester

Examination, December 2015

Object Oriented Methodology And C++

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Write any four features of oops.
   b) Write the advantage of constructor.
   c) Give any four feature of functions.
   d) Explain the concept of constructors and destructors with an example program.

   OR

   Discuss the concept of copy constructor with the help of program.

2. a) Define 'This' pointer.
   b) List out the operators that can't be overloaded.
   c) Write the advantage of inheritance.
   d) Write a C++ program to calculate the salary for 10 employees (which include basic pay, HRA, MA, PF, Tax using pointer to an array)

OR

Write a program to concatenate two strings by overloading '+' operators.

3. a) What is meant by runtime polymorphism?
   b) What is virtual base class?
   c) Write the importance of friend functions.
   d) Explain polymorphism in C++ with suitable example.

   OR

   Write any program to show the concept of virtual functions.

4. a) How to create disk file?
   b) Write the working of tellg( ) function.
   c) Write any three functions those performing formatted output.
   d) Describe the exception handing mechanism of C++, giving an example.

   OR

   What is the difference between seekg( ) and seekP( ) function? Explain with example.

5. a) Write any two features of use case diagram.
   b) Write the purpose of activity diagram.
   c) Write the advantage of visual modeling.
   d) Explain UML diagrams in detail with example.

   OR

   Write short notes
   i) Object diagram
   ii) UML specifications

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