

Roll No .....

**MCA - 303****MCA III Semester**

Examination, December 2014

**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.

**Unit - I**

- Write the difference between struct and classes in c++.
  - Explain various types of looping constraints available in C++.
  - Define object-oriented programming.
  - What is constructor and destructor function? Explain the purpose of constructor and destructor in a program.

OR

What are object array? Give their utility using an example.

**Unit - II**

- Briefly explain function overloading.
  - What is In-line function?
  - What is pointer? Discuss pointers to base and derived classes.
  - What is operator overloading? Write a program to overload postfix unary increment operator.

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OR

What is an idea of reusability? Discuss different forms of inheritance with suitable example.

**Unit - III**

- What are abstract classes? Explain.
  - What is polymorphism? Briefly explain.
  - Discuss the uses of friend function in brief.
  - What are virtual functions? Explain a condition in which virtual functions would be appropriate.

OR

How is polymorphism achieved at compile time and run time?

**Unit - IV**

- Discuss briefly I/O streams.
  - Differentiate between Sukg ( ) and sukp ( ).
  - Discuss various file I/O operations.
  - Explain exception handling. Write a program containing a possible exception. Use a try block to throw it and a catch block to handle it property.

OR

How can you create inserters and extractors of your own? Write down the syntax of both.

**Unit - V**

- What is UML? Explain.
  - Discuss various UML diagrams in brief.
  - Discuss aggregation, generalization and association.
  - Specify various object oriented paradigm and visual modeling.

OR

What are three basic models used in object oriented methodology? Explain object model giving different symbols used.

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