

Roll No. 

--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 09

**MCA (2015 to 2018) (Sem.-1)**  
**OBJECT ORIENTED PROGRAMMING IN C++**  
Subject Code : MCA-102  
M.Code : 72708

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

**SECTION-A**

1. Discuss any five characteristics of Object Oriented Programming.
2.
  - a) Describe the working of breaking control statement.
  - b) Explain various operators available in C++.

**SECTION-B**

3.
  - a) What is recursion? Explain by taking example.
  - b) Explain the working of Union.
4. Write a program for demonstrating functions and arrays.

**SECTION-C**

5.
  - a) Describe the concept of dynamic memory allocation by taking an example.
  - b) What are nested classes? Discuss the use of nested classes in OOP.
6. What is meant by multiple-Inheritance? Write a code snippet in C++ demonstrating multiple-inheritance.





**SECTION-D**

7. What is meant by operator overloading? Why is it required in OOP? Explain.
8.
  - a) Define Virtual Function.
  - b) Discuss file handling using IO streams.

**SECTION-E**

9. **Write briefly :**
  - a) Comment on iostream.h
  - b) Define the term abstraction.
  - c) What is meant by data hiding?
  - d) Define the term enumeration.
  - e) What are destructors?
  - f) Discuss briefly about late binding.
  - g) What is single inheritance?
  - h) What is the use of keyword "Throw"?
  - i) "*Can constructor be overloaded*"? Comment.
  - j) What is the use of keyword "*Static*"?

**NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.**

