Roll No. Total No. of Pages : 02

Total No. of Questions: 09

# MCA (2015 to 2019) (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.

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#### **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 ate 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.

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