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Total No. of Pages: 02

Total No. of Questions: 09

MCA (2015 & Onwards) (Sem. – 1)
OBJECT ORIENTED PROGRAMMING IN C++

M Code: 72708

Subject Code: MCA-102

Paper ID: [72708]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.
3. Use of non-programmable scientific calculator is allowed.

SECTION A

1. Define the concepts of Abstraction, Encapsulation and Inheritance with examples.
2. What are the various operators available in C++? Explain giving suitable examples.

SECTION B

3. Define functions. What are the types of functions in C++? What are the various methods of parameter passing to functions?
4. What are the various storage classes available in C++? Explain with the help of examples.

SECTION C

5. Explain the role of constructors and destructors in C++. Distinguish between default and copy constructor and explain whether constructors and destructors can be overloaded or not.
6. Explain the various methods of derivation used in Inheritance. Explain how a publicly derived class can access private data of a base class? Explain the merits and demerits of private derivation over the public derivation.

SECTION D

7. Differentiate between function overloading and operator overloading? How default parameters are used in function overloading? Discuss with an example.
8. What is a virtual function? Why do we need virtual functions? When do we make a virtual function 'pure'? What are the implications of making a function a pure virtual function?

SECTION E

9.
 - a) What is the difference between class and object?
 - b) What do you mean by operator precedence?
 - c) What is the difference between break and continue?
 - d) What are container classes?
 - e) What is the difference between structure and Union?
 - f) What are inline functions?
 - g) What do you mean by late binding?
 - h) What is an abstract base class?
 - i) What do you mean by enumeration?
 - j) What are recursive functions?