Roll No.												Total No. of Pages: 02
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Total No. of Questions: 09

M.Sc.(IT) (2015 Onwards) (Sem. - 1) OBJECT ORIENTED PROGRAMMING IN C++

M Code: 72518 Subject Code: MSIT-102 Paper ID: [72518]

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.

SECTION A

- 1. Discuss in detail the features of object oriented programming. Also discuss the advantages of OOP paradigm.
- 2. "C++ supports many types of decision-making statements". Elaborate giving examples.

SECTION B

- 3. Define the following types of functions used in C++
 - a) Inline functions
 - b) Virtual functions
 - c) Friend functions
 - d) Static functions
- 4. Define the various storage classes available in C++. Explain the use of different storage classes.

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. Define Inheritance. What are the different types of inheritance? Explain the various methods of derivation used in Inheritance. Explain with an example how a publicly derived class can access a private data of a base class?

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SECTION D

- 7. Define and distinguish between operators overloading and function overloading. What are the pitfalls of operators overloading? How unary and binary operators are overloaded? Explain.
- 8. Explain the various functions involved in opening and closing a sequential file in C++. Explain how an array of class objects can be stored and retrieved from a file.

SECTION E

- 9. a) What is the difference between abstraction and encapsulation?
 - b) Distinguish between public and private classes.
 - c) What are the disadvantages of friend functions?
 - d) Define message passing.
 - e) What do you mean by a container class?
 - f) What is a 'this' pointer?
 - g) What are default parameters?
 - h) What is the difference between container and nested classes?
 - i) What is the difference between an error and an exception?
 - j) What is the difference between early binding and late binding?

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