Roll No. | | | | | | | | | | | | Total No. of Pages : 2

Total No. of Questions : 09

MCA (Sem.–1)

OBJECT ORIENTED PROGRAMMING IN C++

Subject Code : MCA-102 (2012 Batch)

Paper ID : [B0129]

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

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

SECTION-A

1. How OOP has evolved? What are the key features of any OOP system? What are its advantages over functional approach?

2. Discuss basic constituents of C++. How the identifiers can be defined in C++? How the constants can be defined? What are the keywords of C++?

SECTION-B

3. Discuss different types of functions in C++. What are friend functions and virtual functions? Discuss with the help of code examples.

4. What are container classes? How it helps in maintaining the structure of the program? How these help in reusability?

SECTION-C

5. Write a note on union and structures. How these help in better program design? Take help of examples to explain.

6. Write notes on :

   (i) Inline member functions

   (ii) Stream state member functions

SECTION-D

7. Differentiate between function overloading and function overriding with the help of example.

8. Write notes on :

   (i) Passing Array as an argument to function

   (ii) Binary File Operations

SECTION-E

9. Write short notes on :

   a) Differentiate Do and While

   b) Differentiate break and continue

   c) Differentiate single and multiple inheritance

   d) Dynamic Memory Allocation

   e) Identifiers

   f) Polymorphism

   g) Reusability

   h) Nested Classes

   i) File operations

   j) Virtual destructors