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

MCA (Sem.-1ST)
OBJECT ORIENTED PROGRAMMING IN C++

Subject Code: MCA-102

Paper ID: B0129

Time: 3 Hrs.

Max. Marks:100

NOTE: Candidates are required to attempt one question from each section A, B, C, D and the entire section E.

SECTION - A

- Q1 What is object? How it is different from a class? Explain various advantages of OOP approach over function approach. 20
- Q2 a) What is implicit and explicit type conversion? Write C++ program to support your answer. 10
- b) What are the character and symbolic constants? Discuss its need in C++ 10

SECTION - B

- Q3 What is an array? Write a C++ program to explain how an array is passed as an argument to function. 20
- Q4 Write notes on the following:-
- a) Passing structure to a function in C++ 10
- b) Recursion with its merit and demerits. 10

SECTION - C

- Q5 What is constructor? How it is different from destructor? Explain how default and copy constructors are implemented in C++. 20
- Q6 What is public and private inheritance? Explain how various types of inheritances are implemented in C++. 20

SECTION - D

- Q7 Explain the following:-
- a) What is binary operator overloading? Explain how relational operators are overloaded in C++? 10
- b) Explain how exceptions are handled using Try-Catch block? 10

- Q8 a) Write a C++ program that reads a text file and count the number of vowel present in it. 10
- b) What is pure virtual function? Discuss its characteristics. 10

SECTION - E

- Q9 (i) List various features of iostream.h and iomanip.h header files. 02
- (ii) List various rules for operator overloading. 02
- (iii) What are different properties of private and protected variable? 02
- (iv) Define virtual destructor. 02
- (v) How while loop is different from do-while loop? 02
- (vi) What is use of static functions in C++? 02
- (vii) What is operator precedence in C++? 02
- (viii) List various features of pointers. 02
- (ix) How exceptions are handled in C++? 02
- (x) How static data member is defined in C++? 02

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