

MCA/ M11
Object Oriented Programming with C++
Paper : MCA 205

Time: Three Hours
80

Maximum Marks:

Note: (i) Attempt FIVE Questions in all
(ii) Question No. 1 is compulsory
(iii) Attempt remaining Four questions by selecting only ONE question from each Unit

1. Answer the following questions in brief:
- (a) Distinguish between inline function and external linkage function.
 - (b) Differentiate between parameterized and non-parameterized manipulators.
 - (c) overload array operator.
 - (d) Explain the need of friend function through an example.
 - (e) What is pure virtual function? Explain its purpose.
 - (f) Distinguish between normal member function and constructor.
 - (g) Explain the purpose of try, catch and throw keywords.
 - (h) Differentiate between ASCII and binary files.

UNIT-1

2. Explain static data member, read only method, destructor and namespace with example.
- 3 (a) Draw the hierarchy of classes involved in console I/O and explain the purpose of each class in brief.
(b) Explain the formatted console I/O with examples.
- 4 What are the rules to overload operators? Overload insertion, new and subscription Operators.
- 5 (a) what are the differences to overload operators as member function and as friend function?
(b) How can you convert basic types into object types? Explain with an example.

UNIT-III

6. (a) What is multilevel inheritance? Give one example and implement it in C++
(b) Explain the need of virtual destructor by giving an example.
7. (a) What is virtual derivation? Explain with an example.

- (b) Write a derived class constructor that takes one argument and passes this argument along the constructor in base class.

UNIT-IV

- 8
 - (a) Write a template function to find the largest of given N numbers
 - (b) Design a template class to sort N numbers and demonstrate its use.
- 9.
 - (a) Write a program in C++ to copy contents of one text file into another.
 - (b) Write a program in C++ to accept a file at the command line and then print the file size in bytes.