

MCA/M12
Object Oriented Programming with C++
Paper-MCA-205

Time allowed: 3 hours

M.M.: 80

Note: Attempt Q. No. 1 and one question from each of Units-I, II, III and IV.

1. Answer the followings questions in brief:
 - (a) Distinguish between static and dynamic memory allocation in C++
 - (b) Define local class, global class and nested class in C++
 - (c) Distinguish between implicit and explicit type conversions in C++
 - (d) What are limitations of overloading increment/ decrement operator? How are they overcome ?
 - (e) What are the differences between the access specifiers private and protected?
 - (f) Distinguish between pure virtual function and virtual function.
 - (g) What are different file modes? Explain them

UNIT-I

2.
 - (a) What are read only objects? What is the role of constructor in creating such objects?
 - (b) What are static data members? Give suitable example.
3.
 - (a) what are manipulators? Explain ws, ends, setw() and setbase () manipulators with examples.
 - (b) Explain the use of getline(), get(), and write () functions with examples.

UNIT-II

4. What is the importance of operator overloading? Explain the syntax of binary operator overloading. Write a program to overload ‘*’ operator to multiply two vectors.
5.
 - (a) What is friend function? Explain its need by giving a suitable example.
 - (b) How can you convert object of one class into object of another class? Give example.

UNIT-III

6.
 - (a) Discuss the roles of constructor and destructors in inheritance
 - (b) what do you mean by overriding of functions? Give example
 - (c) Explain derivation rules in C++
7.
 - (a) What is abstract class? Give an illustrative example of abstract class in C++
 - (b) Explain the need of virtual function by giving an example in C++

UNIT-IV

8.
 - (a) What is the syntax for indicating a list of exceptions that a function can raise? What happens if an unspecified exception is raised?
 - (b) What is class template ? explain the syntax of a class template with suitable example
9.
 - (a) What are file pointers? Describe get-pointers and put-pointers.
 - (b) What are different types of errors that might pop up while processing files? How can you handle them?