

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

OBJECT ORIENTED PROGRAMMING THROUGH C++

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Define enumerated datatype in C++
2. Define default argument.
3. What is the use of constructors in C++ classes ?
4. Discuss composition in C++
5. Define multiple inheritance in C++

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Write a short note on the basic structure of a C++ program.
2. Discuss structure as heterogeneous aggregate.
3. Explain different parameter passing methods in C++
4. What are the limitations of operator overloading ?
5. Explain multilevel inheritance with example
6. Write a note on class templates in C++
7. Discuss pure virtual functions in C++

(5×6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

- III (a) Define functions. What are the different types of functions in C++ 9
 (b) Describe the concept of memory management in C++ 6

OR

- IV (a) Discuss with an example about recursion in C++ 9
 (b) Write a program in C++ to find the sum of even numbers up to 'n'. 6

UNIT — II

- V Explain the basic concepts of Object Oriented Programming. 15

OR

- VI (a) Discuss inline functions with suitable example. 9
 (b) Write a note on constructors in C++ 6

UNIT — III

- VII (a) Write a program in C++ to overload relational operator (==) to compare two strings. 9
 (b) With the help of a sample program, explain hierarchical inheritance. 6

OR

- VIII (a) With the help of an example, explain how to overload unary operator. 9
 (b) Explain virtual base class. 6

UNIT — IV

- IX (a) Explain how the constructor of the base class can be invoked when the object of the derived class is created. 9
 (b) What are the rules for using virtual functions ? 6

OR

- X (a) Explain multiple inheritance in C++ with an example program. 9
 (b) Discuss how to use multiple catch statement for handling exception in C++ 6