



THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY — OCTOBER, 2016

OBJECT ORIENTED PROGRAMMING THROUGH C++
(Common for CT and CM)

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. List the methods to include comments in a C++ program.
2. Give an example for a homogeneous aggregate in C++.
3. Write the declaration for a function called foo () that takes one argument of type float and returns type float.
4. List the visibility controls.
5. Specify two memory management operators.

(5×2=10)

PART— B

(Maximum marks : 30)

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

1. Explain the stream classes for disk I/O operation.
2. Predict the output of the following program segment.

```
int a = 10, b = 14, c = 67;  
cout << (a>b || (a>c) << endl ;  
cout << (a == b && b<c) << endl ;  
cout << (a ++ ) << endl ;
```
3. Explain about inline functions.
4. Describe constructors.
5. Explain access specifiers in C++.
6. Write about base class and derived class with an example.
7. Describe pure virtual functions.

(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) Explain how strings represented in C++. Explain about finding the length of string. 9
(b) Compare while and do-while loops. 6

OR

- IV (a) Develop a program to store and display the name, sex and age of employees in a company. 9
(b) List the primitive data types in C++. 6

UNIT—II

- V (a) Explain the features of object oriented programming. 9
(b) With help of an example illustrate the use of static member variables in a class. 6

OR

- VI (a) Explain function overloading with example. 9
(b) Outline the difference between passing parameter to a function by reference and by pointer. 6

UNIT—III

- VII (a) With an example program illustrate single and multi level inheritance. 9
(b) Outline the limitations of operator overloading. 6

OR

- VIII (a) Explain friend function with example. 9
(b) Describe about derived class constructors. 6

UNIT—IV

- IX (a) Illustrate the sequence of events when an exception occurs. 9
(b) Differentiate between function template and function overloading. 6

OR

- X (a) Explain multiple inheritance with an example. 9
(b) Explain the need of type cast operator with examples. 6