TED (15) – 3134

(REVISION — 2015)

Reg. No...

Signature ....

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)

[P.T.O.

Marks

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

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