TED (15) 3134

(Revision-2015/19)

A21-08125

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL-2021

OBJECT ORIENTED PROGRAMMING THROUGH C++

[Maximum marks: 75]   (Time: 2.15 Hours)

PART – A

I (Answer any *three* questions in one or two sentences. Each question carries 2 marks)

1. Write the manipulators used in C++ for line feed and field width.
2. Define constructor.
3. Define single inheritance.
4. List the keywords used in Exception handling mechanism in C++.
5. Write the syntax of function prototyping.   (3 x 2 = 6)

PART – B

II (Answer any *four* of the following questions. Each question carries 6 marks)

1. Explain with example Structures as Heterogeneous Aggregates.
2. Explain built-in data types in C++.
3. Differentiate between call by value and call by reference.
4. Explain with example how member functions are defined outside the class.
5. Describe with example base class and derived class.
6. Describe the limitations of operator overloading.
7. Explain Virtual functions with example.   (4 x 6= 24)

PART – C

(Answer *any of the three units* from the following. Each full question carries 15 marks)

UNIT –I

III. (a) Explain different looping statements in C++ with examples.   (9)

(b) Write a C++ program to find the reverse of a number.   (6)

OR

IV. (a) Explain any three storage classes in C++ (9)

(b) Write a C++ program to check whether a given number is negative or positive (6)

UNIT-II

V. (a) Create a class Time that will have data members to store the time in hours, minutes and seconds and member functions to calculate the addition of two given time values. Write a C++ program to display the result in **Hours: Minutes: Seconds**. (10)

(b) Explain about Destructors in C++. (5)

OR

VI. (a) Explain different types of Constructors in C++ with example (9)

(b) Explain inline function with example (6)

UNIT-III

VII.(a) With example explain different types of inheritance supported by C++. (9)

(b) Define operator overloading. Write a C++ program to overload unary operator. (6)

OR

VIII.(a) Write a C++ program to overload relational operator(= =) to compare two strings. (9)

(b) Explain visibility controls in C++ (6)

UNIT-IV

IX. (a) Explain exception handling in C++. (8)

(b) Explain class template with example. (7)

OR

X. (a) Explain function template with example. (8)

(b) Explain pure virtual function with example. (7)

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