DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE –NOVEMBER -2021.

OBJECT ORIENTED PROGRAMMING THROUGH C++

(Maximum Marks : 75)   [Time : 2.15 hours]

PART–A

Marks

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

1. Write about a ternary operator.

2. Give the difference between strcpy ( ) and strcat ( ).

3. Define destructors.

4. Write the use of friend function.

5. Define pure virtual function.   (3x2=6)

PART - B

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

1. Explain arrays as homogeneous aggregates.

2. Write a C++ program to display the multiplication table of a number.

3. Write a note on inline function with an example.

4. Describe basic class syntax with an example.

5. Explain single inheritance.

6. Differentiate inheritance and composition.

7. Describe type cast operators with an example.

(4x6 =24)

PART - C

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

UNIT I

III (a) Explain while loop and do while loop with suitable examples. (8)

(b) Write a program in C++ to input a month number and display the month name. (7)

OR

IV (a) Create a structure called Employee with Name, Age, Designation and Salary as data members. Write a C++ program to create an array of objects for the structure to access and display the data. (8)

(b) Describe the storage classes in C++. (7)

UNIT- II

V (a) Define constructor. Explain default constructor and copy constructor with examples. (8)

(b) Explain function overloading with example. (7)

OR

VI (a) Write a C++ program to find the area of circle using class circle with the functions to accept radius from the user, calculate the area, and display the result. Implement member functions outside the class. (8)

(b) Explain the difference between passing parameter to a function by value and by pointer. (7)

UNIT- III

VII (a) Explain multilevel inheritance and hierarchical inheritance. (8)

(b) Explain overloading of operators and the limitations on operator overloading. (7)

OR

VIII (a) Write a program in C++ to concatenate two strings by overloading the operator '+'. (8)

(b) How to control access of base components of a derived class object. (7)

UNIT – IV

IX (a) Explain multiple inheritance in C++ with an example program. (8)

(b) Explain how a base class object pointer can invoke the member function of a derived class with an example. (7)

OR

X (a) Describe exception handling mechanism in C++. (8)

(b) Explain template class. (7)

****