

## **B. TECH-CS (2<sup>nd</sup> Sem)**

### **List of oops practical questions: -**

#### **Practical-1**

- Q1. Write a C++ program to add two numbers.
- Q2. Write a C++ program to print triangle pattern.
- Q3. Write a C++ program to print a square pattern.

#### **Practical-2**

- Q1. Write a C++ program to print a square border pattern.
- Q2. Function overloading between integer and double type.
- Q3. Function overloading between integer and string type.

#### **Practical-3**

- Q1. Write a C++ program to convert Celsius to Fahrenheit and Fahrenheit to Celsius.
- Q2. Write a C++ program to do the following operations:
  - 1. Deposit
  - 2. Withdrawal
  - 3. Display
  - 4. Exit
- Q3. Write a C++ program to check whether a number is odd or even.

#### **Practical-4**

- Q1. Write a C++ program to enter an element in an array and display it.
- Q2. Write a C++ program to perform 3x3 matrix multiplication.
- Q3. Write a C++ program to check palladium through string.

#### **Practical-5**

- Q1. Write a Program to illustrate the use of pointers to objects which are related by inheritance.
- Q2. Write a Program to illustrate the use of virtual functions in class.
- Q3. Write a program showing conversion between objects of different classes.

#### **Practical-6**

- Q1. Write a C++ program to Store and Display Employee Information.
- Q2. Write a C++ program to demonstrate the usage of a constructor and destructor in a class.
- Q3. Write a C++ program to demonstrate parameterized Constructor.

#### **Practical-7**

- Q1. Write a C++ program to demonstrate simple inheritance.
- Q2. Write a C++ program to display employee information using multiple inheritance.

## **Practical-8**

Q1. Write a Program to swap private data members of classes named as class\_1, class\_2 using friend function.

Q2. Write a C++ program to demonstrate parameter passing mechanism using pass by address method.

Q3. Write a program using copy constructor to copy data of an object to another object.

## **Practical-9**

Q1. Write a C++ program to demonstrate simple polymorphism.

Q2. Create an Abstract class vehicle having average as data and pure virtual function getdata() and putdata(). Derive class car and truck from class vehicle having data members: fuel type (petrol, diesel, CNG) and no of wheels respectively. Write a main ( ) that enters the data of two cars and a truck and display the details of them.

**Use the concept of Abstract Base class and Pure Virtual functions. Expected Output:** Fill up the below given table, according to the obtained output. Attach the screenshot of the output.

	<b>Fuel Type</b>	<b>No. of Wheels</b>
Car1		
Truck1		
Car2		
Truck2		

## **Practical-10**

Q1. Write a program containing a possible exception. Use a try block to throw it and a catch block to handle it promptly.

Q2. Write a program that illustrates the application of multiple catch statements.