

# **Topic 2 - Practice Questions and Assignments**

## **SECTION A: Conceptual Questions**

1. What is OOP?
2. What is the difference between a class and an object?
3. Why is encapsulation important?
4. What is UML?
5. What does private mean in a class?

## **SECTION B: Coding Practice**

1. Create a class Car with:
  - brand
  - model
  - function display()
2. Create an object of Car and display details.
3. Create a class Rectangle with:
  - length
  - width
  - function area()
4. Create a BankAccount class with private balance.  
Add deposit() and getBalance() functions.

## **MINI ASSIGNMENTS**

### **Assignment 1:**

Create a Student class with private data members and public setter/getter functions.

### **Assignment 2:**

Create a Product class and design its UML diagram before coding.

## **END-OF-TOPIC CHALLENGE**

Create a complete program that:

- Uses class
- Creates multiple objects
- Uses encapsulation
- Displays output clearly