**Higher Diploma in Information Technology**

**Object Oriented Programming (Java)**

**Year 1 Semester 2 – 2023**

**Tutorial Nested Classes**

1. What are the types of Nested Classes supported by java?
2. Write a class called Car which has Model, Price as the attributes
3. Write a inner class called Engine which describe the engine’s attributes as followings

* EngineCapacity
* NumberOfCylinders
* EngineType

1. Create Constructors for both Outer and Inner Classes taken values respectively.
2. Create a Method called CreateEngine which creates the object from the inner class and prints the values of the attributes to the screen. (Take parameters accordingly)
3. Write a class called TestCar which has the main method and do the following tasks.
   * Create an object from the outer class
   * Create an object from the inner class
   * Call the method created in question 5
4. Create a method called LeasingCalculator and create a Method local class called **Lease** with the following attributes.
   * LeasingCompany
   * DownPayment
   * Installement
   * Duration
   * InterestRate
5. Write a method inside **Lease** class named as CalculateLease,which calculate the Total Interest as follows.

Total Interest=(Installment\*InterestRate)

1. Call the method in question 8 in the main class you have created.