Tk-1-A

Dear Students,

You all need to follow the instructions mentioned in this document.

Instructions:

1. You should not connect to internet without consent of faculty.
2. You need to define all the classes, methods and objects properly.
3. You need to code the solution according to the module programming; it means that don't write the code within one or two classes.
4. You need to take at least 10 values for any kind of user input.
5. You need to write proper comments before beginning of each class and wherever it is necessary in your solution.
6. Take this test as a challenge and code the solution by yourself as it will help you to understand your level of programming.

Rubrics:

1. Logic -4 Marks
2. Syntax- 2 Mars
3. OOP Concepts -1 Marks (how well you have incorporated all OOP Concepts)
4. Comments-1 Marks (how well your program is readable by a programmer)
5. User Friendly-2 Marks (how well your program is understood by a user)

Problem Statement: (Each question carries 10 Marks)

1. Consider electric scooter building process, which requires many steps from allocating accessories to final makeup. These steps should be written as methods and should be called while creating an instance of a specific vehicle type. Two-wheeler, Three-Wheeler and Four-Wheeler could be the subclasses of vehicle class and for these subclasses you should make at least two subclasses like: Two-Wheeler- Basic model, advance model or it may be like basic and pro. Vehicle class and its subclasses, Vehicle_Factory and Test_Factory Pattern should be implemented.

2. Implement and apply pattern for simple Shopping Cart where three payment strategies are used such as Credit Card, PayPal, Bit Coin. Create a system for strategy pattern and give concrete implementation for payment.