Name: Excel Christian Wulantoro Sadik

Class: TI - 2I

NIM: 244107020227

## **Question Test**

1. Explain the difference between object and class!

A class is a blueprint or template that defines attributes (state) and methods (behavior). An object is a concrete instance of a class, it holds specific values for its attributes and can perform the methods defined by the class.

2. State your reason why color and engine type can be classified as attributes for a car object!

Color and engine type are characteristics (state) that describe the condition or features of a car. Attributes store data that distinguish one car from another (color: red, engine type: gasoline/electric). Since both represent the car's state, they are appropriate to be stored as attributes.

- 3. State one of OOP's better points than procedural programming!

  Modularity / Reusability through encapsulation and inheritance: changes in one class (adding a feature) can be made without modifying other parts of the program, making the code easier to maintain and reusable.
- 4. Is it allowed to define two attributes in one line code such as "public String nama, alamat;"?

Yes. Java allows multiple variables to be declared in a single line: public String nama, alamat; this is equivalent to declaring two separate String variables on different lines.

5. In the SepedaGunung class, state your reason why merk, kecepatan, and gear attributes are not written again in this class!

Because SepedaGunung inherits from the Sepeda class (inheritance). Attributes such as merk, kecepatan, and gear are already defined in the superclass (Sepeda), so they do not need to be redefined in the subclass, it only needs to add specific attributes (tipeSuspensi).