Java Object-oriented programming

**1. What is Object-Oriented Programming (OOP)?**

**Answer**: A paradigm based on objects containing data and behavior.

**2. What are the four pillars of OOP?**

**Answer**: Encapsulation, Abstraction, Inheritance, Polymorphism.

**3. What is a class in OOP?**

**Answer**: A blueprint for creating objects with properties and methods.

**4. What is an object in OOP?**

**Answer**: An instance of a class containing data and behavior.

**5. What is encapsulation?**

**Answer**: Bundling data and methods, restricting external access.

**6. What is inheritance?**

**Answer**: Deriving new classes from existing ones to reuse code.

**7. What is polymorphism?**

**Answer**: Treating objects of different classes as one common type.

**8. What is abstraction?**

**Answer**: Hiding complex details, exposing only essential features.

**9. What is method overriding?**

**Answer**: Redefining a parent class method in a subclass.

**10. What is a constructor?**

**Answer**: A method called to initialize a new object instance.