



Total Score

**25/30**

Questions

**30**

Correct

**25**

Incorrect



Unattempted

**0**

## Performance Analysis



### Strengths

The candidate demonstrated a good understanding of core OOP concepts like attributes, methods, encapsulation, inheritance, and polymorphism. They correctly answered many questions related to these topics.



### Areas for Improvement

The candidate struggled with the basic concepts of classes and constructors. There was also some confusion regarding encapsulation and data hiding.



### Recommended Topics

#### Classes and Objects

The candidate had initial confusion about what a class is. Reviewing the fundamentals will help build a solid base.

#### Instantiation and Constructors

The candidate incorrectly answered questions related to instantiation and constructors, indicating a need to understand how objects are created and initialized.

#### Encapsulation

The candidate had difficulty with data hiding, which is a key part of encapsulation.

## Inheritance

Strengthen understanding of inheritance to improve the ability to reuse code and create relationships between classes.

## Polymorphism

Understanding polymorphism will help the candidate to create more flexible and adaptable code.



## Learning Path

### Classes and Objects

Steps:

- Start with the basics: Understand what classes and objects are.
- Explore attributes and methods: Learn how to define them within a class.
- Practice with examples: Create simple classes and objects to solidify your understanding.

### Instantiation and Constructors

Steps:

- Study the concept of instantiation and how to create objects from classes.
- Understand how constructors work and their role in initializing object attributes.
- Practice writing code to create objects and initialize their attributes using constructors.

### Encapsulation

Steps:

- Learn about encapsulation: Understand how it bundles data and methods.
- Study access modifiers: Explore how they control the visibility of attributes and methods.
- Practice creating classes with encapsulated data and methods.

### Inheritance

Steps:

- Understand inheritance: Learn how a class can inherit properties from another.
- Study the terms superclass and subclass.
- Practice creating classes that inherit from other classes and understand how to override methods.

### Polymorphism

Steps:

- Learn the definition of polymorphism.
- Study method overriding and overloading.
- Practice with examples to understand how different objects can respond to the same method call.