C++ Inheritance Assessment – Section A (MCQs)

Instructions: Circle the correct option. Each question carries 1 mark.

Section A: Multiple Choice Questions (Inheritance)

1. What does the following code mean?

   ```
   class Car :  public Vehicle { };
   ```

   A. Car is a friend of Vehicle

   B. Car is a child of Vehicle, using public inheritance

   C. Vehicle is an interface

   D. Vehicle inherits from Car

2. Which access modifier allows derived classes to access members, but hides them from unrelated classes?

   A. private

   B. public

   C. protected

   D. internal

3. Which members are **not** inherited in C++?

   A. public members

   B. protected members

   C. private members

   D. virtual members

4. If a base class has a constructor that takes parameters, and no default constructor, what must the derived class do?

   A. Call `super()`

B. Write a virtual destructor

C. Explicitly call the base constructor in its initializer list

D. Nothing

5. Given `class Car :  private Vehicle`, what is the visibility of `Vehicle`'s public members in `Car`?

   A. Still public

   B. Now protected

   C. Now private

   D. Not inherited at all

6. What is object slicing?

   A. When a base class is copied into a derived class

   B. When a derived class is converted into base and extra parts are lost

   C. When multiple base classes are used

   D. When a constructor is missing

7. Which of the following describes multilevel inheritance?

   A. One base class, multiple derived classes

   B. Derived class inherits from another derived class

   C. Base class inherits from a derived class

   D. One class inherits from two unrelated classes

8. In C++, what is the default access level for inheritance if not specified?

   A. public

   B. private

   C. protected

   D. internal

9. What happens if a derived class does not define a constructor?

   A. It must be abstract

   B. It uses the base class constructor with the same signature

   C. It uses the base class default constructor

   D. Compilation error

10. Which of the following statements is true?

    A. Private inheritance means members become protected

    B. Protected inheritance makes public members protected in derived class

    C. Public inheritance hides private members of the base class

    D. All base members are always public in derived class