**MCQs on Polymorphism in C#**

1. **What is polymorphism in object-oriented programming?**  
   a) Ability of a variable to change its data type  
   b) Ability of a function to operate on different data types  
   c) Ability of an object to take multiple forms  
   d) Ability of a function to be called multiple times

**Answer:** c) Ability of an object to take multiple forms

1. **Which of the following is NOT a type of polymorphism in C#?**  
   a) Static polymorphism  
   b) Dynamic polymorphism  
   c) Hybrid polymorphism  
   d) Virtual polymorphism

**Answer:** c) Hybrid polymorphism

1. **How is static polymorphism achieved in C#?**  
   a) Using interfaces  
   b) Using function overloading and operator overloading  
   c) Using abstract classes  
   d) Using inheritance

**Answer:** b) Using function overloading and operator overloading

1. **Which keyword is used to achieve dynamic polymorphism in C#?**  
   a) static  
   b) override  
   c) overload  
   d) final

**Answer:** b) override

1. **What is the term for linking a function with an object at compile time?**  
   a) Early binding  
   b) Late binding  
   c) Dynamic binding  
   d) Overloading

**Answer:** a) Early binding

1. **Which of the following is true about abstract classes in C#?**  
   a) They can be instantiated directly  
   b) They cannot have abstract methods  
   c) They must be declared using the abstract keyword  
   d) They can be declared as sealed

**Answer:** c) They must be declared using the abstract keyword

1. **What happens if a derived class does not override an abstract method from its base class?**  
   a) Compilation error  
   b) Runtime error  
   c) The base class method is automatically called  
   d) The derived class can still be instantiated

**Answer:** a) Compilation error

1. **Which keyword is used to define a virtual function in C#?**  
   a) abstract  
   b) virtual  
   c) override  
   d) static

**Answer:** b) virtual

1. **What is the purpose of the base keyword in polymorphism?**  
   a) To call a method from a parent class  
   b) To define a new base class  
   c) To override a method in a derived class  
   d) To create a new instance of a base class

**Answer:** a) To call a method from a parent class

1. **Which of the following statements is true about function overloading?**  
   a) Functions can only be overloaded based on return type  
   b) Functions must have the same name but different parameters  
   c) Overloading requires the override keyword  
   d) Overloaded functions must be declared as virtual

**Answer:** b) Functions must have the same name but different parameters