

28 Lecture - CS304

Important Mcqs

1. **What is the purpose of virtual functions in C++?**

- A. To achieve static polymorphism
- B. To achieve dynamic polymorphism
- C. To improve code readability
- D. To increase program performance

Answer: B

Which keyword is used to declare a function as virtual in C++?

- A. static
- B. virtual
- C. dynamic
- D. polymorphic

Answer: B

In which class are virtual functions declared in C++?

- A. Base class
- B. Derived class
- C. Abstract class
- D. Static class

Answer: A

Which function is called when a virtual function is invoked through a base class pointer?

- A. Base class function
- B. Derived class function
- C. Default function
- D. Static function

Answer: B

What is a virtual function table (vtable) in C++?

- A. A table that stores the addresses of all virtual functions in a class hierarchy
- B. A table that stores the names of all virtual functions in a class hierarchy
- C. A table that stores the values of all virtual functions in a class hierarchy
- D. A table that stores the types of all virtual functions in a class hierarchy

Answer: A

Can a derived class override a non-virtual function of its base class in C++?

- A. Yes
- B. No

Answer: A

What is the syntax for providing a default implementation of a virtual function in C++?

- A. virtual void functionName() { ... }
- B. virtual void functionName() = 0;

- C. virtual void functionName() default;
- D. virtual void functionName() { ... } default;

Answer: D

What is the difference between a pure virtual function and a virtual function with a default implementation in C++?

- A. A pure virtual function has no implementation, while a virtual function with a default implementation does
- B. A pure virtual function cannot be called, while a virtual function with a default implementation can be
- C. A pure virtual function is declared with the = 0 syntax, while a virtual function with a default implementation is declared with the = default syntax
- D. There is no difference between the two

Answer: A

Can virtual functions be defined as private in a C++ class?

- A. Yes
- B. No

Answer: A

What is the purpose of a virtual destructor in C++?

- A. To improve program performance
- B. To allow objects to be destroyed properly in a class hierarchy
- C. To prevent memory leaks
- D. To allow objects to be cloned easily

Answer: B