C# QUIZ 3

1. Which keyword is used to throw an exception in C#?

A. throw

B. catch

C. try

D. finally

2. What is the purpose of a try-catch block in C#?

A. To handle an exception

B. To throw an exception

C. To terminate the program

D. To create an object

3. Which of the following is not a type of exception handling in C#?

A. try-catch-finally

B. throw-catch-finally

C. try-finally

D. try-catch

4. What is the difference between a checked and an unchecked exception in C#?

A. A checked exception must be caught or declared while an unchecked exception does not.

B. A checked exception is thrown by the runtime system while an unchecked exception is thrown by the programmer.

C. A checked exception is a compile-time error while an unchecked exception is a runtime error.

D. There is no difference between a checked and an unchecked exception in C#.

5. Which of the following is an example of a runtime exception in C#?

A. FileNotFoundException

B. ArgumentNullException

C. InvalidOperationException

D. ArgumentOutOfRangeException

6. Which of the following statements is true about exception handling in C#?

A. Exceptions should always be caught and handled.

B. Exceptions should be thrown from the main method only.

C. Exceptions can only be handled using try-catch blocks.

D. Exceptions should be caught and rethrown without modification.

7. What is polymorphism in C#?

A. Polymorphism is the ability of a method to take on many forms.

B. Polymorphism is the ability of a class to inherit properties from multiple classes.

C. Polymorphism is the ability of an object to be used in many different ways.

D. Polymorphism is the ability of a method to return multiple values.

8. Which of the following is an example of polymorphism in C#?

A. Method overloading

B. Method overriding

C. Both A and B

D. None of the above

9. What is method overloading in C#?

A. Method overloading is the ability to have multiple methods with the same name but different parameters.

B. Method overloading is the ability to have multiple methods with the same name and the same parameters.

C. Method overloading is the ability to have a method with multiple return types.

D. Method overloading is the ability to have a method with multiple access modifiers.

10. What is method overriding in C#?

A. Method overriding is the ability to have multiple methods with the same name but different parameters.

B. Method overriding is the ability to have multiple methods with the same name and the same parameters.

C. Method overriding is the ability to change the implementation of a method in a subclass.

D. Method overriding is the ability to hide a method in a superclass.

11. Which keyword is used to mark a method as virtual in C#?

A. override

B. virtual

C. sealed

D. new

12. Which keyword is used to override a method in a subclass in C#?

A. override

B. virtual

C. sealed

D. new

13. Which of the following is true about polymorphism in C#?

A. Polymorphism can only be achieved through method overriding.

B. Polymorphism can only be achieved through method overloading.

C. Polymorphism can be achieved through method overriding and method overloading.

D. Polymorphism cannot be achieved in C#.

14. What is a delegate in C#?

A. A delegate is a reference type that can be used to encapsulate a method with a specific signature.

B. A delegate is a keyword used to define a class.

C. A delegate is a keyword used to define a method.

D. A delegate is a keyword used to define a variable.

15. Which of the following is not a valid way to handle an exception in C#?

A. Using a try-catch block

B. Using a try-finally block

C. Using a try-catch-finally block

D. Using a try-except block

16. Which of the following is true about extension methods in C#?

A. They must be defined within the class they extend

B. They can be defined in a separate static class

C. They can be used to override existing methods

D. They can only be used with value types

17. What is the purpose of the "params" keyword in C#?

A. To define a parameter as a reference type

B. To define a parameter as an output parameter

C. To define a variable number of parameters for a method

D. To define a parameter as a nullable type

18. What is the difference between a private and a protected access modifier in C#?

A. Private members can be accessed by derived classes while protected members cannot.

B. Protected members can be accessed by derived classes while private members cannot.

C. Private members are accessible only within the class while protected members are accessible within the class and its derived classes.

D. Private members are accessible within the class and its derived classes while protected members are accessible only within the class.

19. Which of the following is not a valid way to declare a constant in C#?

A. const int myConstant = 10;

B. readonly int myConstant = 10;

C. static readonly int myConstant = 10;

D. None of the above

20. What is the purpose of the "nameof" operator in C#?

A. To return the type of an object

B. To return the name of a method

C. To return the name of a variable, type, or member

D. To return the size of an array