C-SHARP (PRACTICAL)

1. What does C# stand for?

a. C Sharp

b. C Style

c. Common Language

d. Computer Programming

2. C# is a programming language developed by which company?

a. Microsoft

b. Apple

c. Google

d. IBM

3. In C#, what is the default access modifier for class members if no access modifier is specified?

a. Public

b. Private

c. Protected

d. Internal

4. Which of the following is NOT a valid C# data type?

a. int

b. float

c. decimal

d. char\*

5. How is a single-line comment written in C#?

a. /\* Comment \*/

b. // Comment

c. ''' Comment '''

d. -- Comment

6. Which keyword is used to declare a constant in C#?

a. const

b. final

c. static

d. readonly

7. What does the "this" keyword refer to in C#?

a. Current class instance

b. Current method

c. Current namespace

d. Current project

8. Which of the following is a reference type in C#?

a. int

b. double

c. string

d. char

9. What is the purpose of the "using" statement in C#?

a. To include external libraries

b. To define namespaces

c. To handle exceptions

d. To declare variables

10. How is a C# constructor different from a C# method?

a. Constructors have a return type; methods do not.

b. Constructors are called explicitly; methods are called implicitly.

c. Constructors are used to create objects; methods perform actions.

d. Constructors cannot have parameters; methods can.

11. What is the role of the "base" keyword in C#?

a. It specifies the base class in inheritance.

b. It refers to the root directory of the project.

c. It is used to call a method from the base class.

d. It initializes the base address of an array.

12. Which operator is used for explicit type conversion in C#?

a. +

b. -

c. \*

d. (type)

13. What is the purpose of the "sealed" keyword in C#?

a. To prevent a class from being instantiated.

b. To prevent a method from being overridden.

c. To prevent a variable from being modified.

d. To prevent a class from being inherited.

14. What is the default value of an integer in C#?

a. 0

b. 1

c. null

d. Undefined

15. How is a static method called in C#?

a. Using the new keyword

b. Using the class name

c. Using the base keyword

d. Using the this keyword

16. What does the "+= " operator do in C#?

a. Adds two numbers

b. Concatenates strings

c. Subtracts two numbers

d. Multiplies two numbers

17. Which of the following is used for exception handling in C#?

a. try-catch

b. if-else

c. switch-case

d. while loop

18. What is the purpose of the "finally" block in a try-catch statement in C#?

a. It executes the code only if no exception occurs.

b. It always executes, regardless of whether an exception occurs or not.

c. It executes the code only if an exception occurs.

d. It is used to catch specific types of exceptions.

19. What is the difference between "StringBuilder" and "String" in C#?

a. StringBuilder is immutable; String is mutable.

b. StringBuilder is faster for string manipulation; String is faster for reading.

c. StringBuilder is a reference type; String is a value type.

d. StringBuilder is used for mathematical calculations; String is used for text processing.

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

a. It performs a bitwise AND operation.

b. It checks if an object is of a particular type and returns null if not.

c. It checks if an object is null and returns true if not.

d. It performs arithmetic addition.

21. How is memory allocated for value types in C#?

a. On the stack

b. On the heap

c. In the global memory pool

d. In a separate memory segment

22. What is the purpose of the "IEnumerable" interface in C#?

a. It provides methods for sorting arrays.

b. It defines a method for iterating over a collection.

c. It is used for handling user input events.

d. It represents a mathematical equation.

23. What is the purpose of the "using" directive in C#?

a. To include external libraries

b. To declare variables

c. To define namespaces

d. To handle exceptions

24. What is the role of the "yield" keyword in C#?

a. To stop the execution of a program.

b. To generate a sequence of values lazily.

c. To define a conditional statement.

d. To specify the entry point of a program.

25. What does the "?? " operator do in C#?

a. Performs a logical AND operation.

b. Checks for null and returns a default value if the variable is null.

c. Concatenates two strings.

d. Performs a bitwise OR operation.

26. What is the purpose of the "lock" keyword in C#?

a. It locks the entire application.

b. It prevents a method from being accessed.

c. It is used for multithreading synchronization.

d. It defines a constant value.

27. Which of the following statements is correct regarding an abstract class in C#?

a. It cannot have any abstract methods.

b. It can be instantiated.

c. It can have both abstract and concrete methods.

d. It can only contain static methods.

28. How is a delegate declared in C#?

a. delegate void MyDelegate();

b. function MyDelegate() {}

c. void MyDelegate() {}

d. delegate MyDelegate();

29. What is the purpose of the "async" and "await" keywords in C#?

a. They define a conditional statement.

b. They are used for exception handling.

c. They are used for asynchronous programming.

d. They perform arithmetic operations.

30. What is the role of the "interface" keyword in C#?

a. It defines a class that cannot be instantiated.

b. It defines a contract for a class to implement.

c. It is used for exception handling.

d. It is used to create instances of classes.

31. How is a property defined in C#?

a. using get and set methods

b. using only a

get method

c. using only a set method

d. using a field and a constructor

32. What is the purpose of the "using" statement in C# regarding IDisposable objects?

a. To include external libraries.

b. To release resources automatically.

c. To handle exceptions.

d. To define namespaces.

33. Which of the following is NOT a valid C# access modifier?

a. public

b. friend

c. internal

d. protected internal

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

a. It returns the name of the current method.

b. It returns the name of the current class.

c. It returns the name of a variable, type, or member.

d. It returns the name of the current namespace.

35. How is an event declared in C#?

a. event MyEvent;

b. void MyEvent() {}

c. delegate MyEvent();

d. event MyEventHandler MyEvent;

36. Which attribute is used to specify the version of an assembly in C#?

a. AssemblyVersion

b. AssemblyFileVersion

c. AssemblyVersionInfo

d. AssemblyVersionNumber

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

a. It specifies the access level of a method.

b. It allows a method to accept a variable number of parameters.

c. It defines a constant value.

d. It is used for exception handling.

38. What does the term "boxing" refer to in C#?

a. Converting a value type to a reference type.

b. Converting a reference type to a value type.

c. Encrypting a string.

d. Concatenating two strings.

39. What is the purpose of the "Thread.Sleep" method in C#?

a. To pause the execution of the current thread.

b. To terminate the current thread.

c. To check the status of a thread.

d. To start a new thread.

40. How is an enum declared in C#?

a. enum MyEnum {Value1, Value2, Value3};

b. enum MyEnum = {Value1, Value2, Value3};

c. MyEnum = {Value1, Value2, Value3};

d. MyEnum {Value1, Value2, Value3};

41. What is the purpose of the "Checked" keyword in C#?

a. It checks for null values in a variable.

b. It checks for arithmetic overflow.

c. It checks for divide-by-zero errors.

d. It checks for the equality of two variables.

42. Which of the following is NOT a valid way to create an object in C#?

a. var obj = new MyClass();

b. MyClass obj = new MyClass();

c. object obj = new MyClass();

d. MyClass obj;

43. How can you handle exceptions in C#?

a. Using the try-catch block

b. Using the if-else statement

c. Using the switch statement

d. Using the while loop

44. What is the purpose of the "goto" statement in C#?

a. To define a label for a loop.

b. To transfer control to a specific labeled statement.

c. To define a constant value.

d. To define a class.

45. Which of the following statements is correct about the "namespace" keyword in C#?

a. It defines a method.

b. It defines a class.

c. It defines a namespace.

d. It defines a constant.

46. What is the purpose of the "Dispose" method in C#?

a. To release unmanaged resources.

b. To initialize an object.

c. To check for null values.

d. To perform mathematical calculations.

47. What is the purpose of the "switch" statement in C#?

a. To define a conditional statement.

b. To define a loop.

c. To handle multiple cases based on the value of an expression.

d. To declare a variable.

48. What is the purpose of the "volatile" keyword in C#?

a. It indicates that a variable can be accessed by multiple threads.

b. It declares a variable as constant.

c. It checks for null values.

d. It specifies the scope of a variable.

49. How is a private constructor useful in C#?

a. It prevents the creation of instances of the class.

b. It allows access only within the same assembly.

c. It initializes a variable to a default value.

d. It defines a constant value.

50. What is the purpose of the "try" block in a try-catch statement in C#?

a. To execute the code only if no exception occurs.

b. To catch specific types of exceptions.

c. To always execute, regardless of whether an exception occurs or not.

d. To define the code that might throw an exception.