1. What are the six combinations of access modifier keywords and what do they do?

Public

Private

Protected

Internal

Protected Internal

Private Protected

2.What is the difference between the static, const, and readonly keywords when applied to a type member?

While const is initialized at compile time, readonly keyword allow the variable to be initialized either at compile time or runtime.

3. What does a constructor do?

A constructor is a special method of a class or structure in object-oriented programming that initializes a newly created object of that type. Whenever an object is created, the constructor is called automatically.  
4. Why is the partial keyword useful?

The partial keyword indicates that other parts of the class, struct, or interface can be defined in the namespace. All the parts must use the partial keyword. All the parts must be available at compile time to form the final type. All the parts must have the same accessibility, such as public , private , and so on;

5. What is a tuple?

a data structure which consists of the multiple parts”

6. What does the C# record keyword do?

Beginning with C# 9, you use the record keyword to define a reference type that provides built-in functionality for encapsulating data. C# 10 allows the record class syntax as a synonym to clarify a reference type, and record struct to define a value type with similar functionality.

7. What does overloading and overriding mean?

Overloading occurs when two or more methods in one class have the same method name but different parameters. Overriding occurs when two methods have the same method name and parameters. One of the methods is in the parent class, and the other is in the child class.  
8. What is the difference between a field and a property?

A field is a variable of any type that is declared directly in a class. A property is a member that provides a flexible mechanism to read, write or compute the value of a private field. A field can be used to explain the characteristics of an object or a class

9. How do you make a method parameter optional?

Add a “optional” key word;  
10. What is an interface and how is it different from abstract class?

An abstract class allows you to create functionality that subclasses can implement or override. An interface only allows you to define functionality, not implement it. And whereas a class can extend only one abstract class, it can take advantage of multiple interfaces.  
11. What accessibility level are members of an interface?

All types and type members have an accessibility level. The accessibility level controls whether they can be used from other code in your assembly or other assemblies.

12. True/False. Polymorphism allows derived classes to provide different implementations of the same method.  
13. True/False. The override keyword is used to indicate that a method in a derived class is  
providing its own implementation of a method.  
14. True/False. The new keyword is used to indicate that a method in a derived class is  
providing its own implementation of a method.  
15. True/False. Abstract methods can be used in a normal (non-abstract) class. 16.  
True/False. Normal (non-abstract) methods can be used in an abstract class. 17. True/False.  
Derived classes can override methods that were virtual in the base class. 18. True/False.  
Derived classes can override methods that were abstract in the base class. 19. True/False.  
In a derived class, you can override a method that was neither virtual non abstract in the  
base class.  
20. True/False. A class that implements an interface does not have to provide an  
implementation for all of the members of the interface.  
21. True/False. A class that implements an interface is allowed to have other members that  
aren’t defined in the interface.  
22. True/False. A class can have more than one base class.  
23. True/False. A class can implement more than one interface.