

C#.NET Delegates, Events, and Collections

Computer Science · Answer Key · 15 Questions

1. What is a delegate in .NET?

- A) A class that encapsulates a method
- B) A type that holds a reference to a method**
- C) A database connection string
- D) A graphical interface component

2. What keyword is used to instantiate a delegate?

- A) init
- B) create
- C) new**
- D) make

3. Which of the following is true about generic delegates?

- A) They are bound to a specific type
- B) They cannot reference methods
- C) They allow substitution of type placeholders**
- D) They only support void methods

4. What is the primary difference between delegates and interfaces?

- A) Delegates have more implementation
- B) Interfaces are faster to execute
- C) Delegates can implement a method only once
- D) Delegates have no implementation, only declaration**

5. What symbol is used to register a new subscription to an event?

- A) +=**
- B) -=
- C) ==
- D) ++

6. Which collection represents a Last In, First Out (LIFO) structure?

- A) Queue
- B) ArrayList
- C) Stack**
- D) Hashtable

7. Which collection represents a First In, First Out (FIFO) structure?

- A) Stack
- B) Queue**
- C) SortedList
- D) Hashtable

8. What does a Hashtable store?

- A) Single values
- B) Key-value pairs**
- C) Only integers
- D) Only strings

9. Which class combines the features of an ArrayList and a Hashtable?

- A) Queue
- B) Stack
- C) SortedList**
- D) List<T>

10. What does the List<T> method 'IndexOf()' return if an element is not found?

- A) 0
- B) null
- C) false
- D) -1**

11. In a Queue, which method adds an element to the end?

- A) Enqueue**
- B) Push
- C) Add
- D) Insert

12. In a Stack, which method removes and returns the top element?

- A) Dequeue
- B) Pop**
- C) Remove
- D) Clear

13. Which namespace contains the standard collections?

- A) System.Collections**
- B) System.Data
- C) System.IO
- D) System.Collections.Generic

14. Which interface allows you to loop through elements in a collection?

- A) ICollection
- B) IDictionary
- C) IEnumerable**
- D) IList

15. What is the purpose of generics in C#?

- A) To slow down execution
- B) To reuse code across different types**
- C) To force all data to be strings
- D) To replace classes with methods