Chapter 9 Questions

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**Multiple Choice**

1. Each object that is created from a class is called a(n) \_\_\_\_\_ of the class. **Answer:** C. Instance.
2. You create a class by writing a(n) \_\_\_\_\_. **Answer:** B. Class declaration.
3. The first line of a class declaration is known as the \_\_\_\_\_. **Answer:** C. Class header.
4. The class’s \_\_\_\_\_ are the statements that define the class’s fields, properties, and methods. **Answer:** D. Member declarations.
5. A(n) \_\_\_\_\_ is a method that is automatically executed when an object is created.

**Answer:** C. Constructor.

1. A(n) \_\_\_\_\_ is a special type of class member that allows an object to store and retrieve a piece of data. **Answer:** A. Property.
2. A special set of methods, known as \_\_\_\_\_, work in conjunction with a private field and allow code outside the class to get the property’s value, and assign values to the property.

**Answer:** A. Accessors.

1. The private field, which is known as the property’s \_\_\_\_\_, holds any data that is assigned to the property. **Answer:** B. Backing field.
2. The \_\_\_\_\_ parameter of the set accessor is automatically created by the compiler, and its data type is the same as that of the property. **Answer:** B. value.
3. A \_\_\_\_\_ can be read, but it cannot be modified. **Answer:** D. Read-only property.
4. When the value of an item is dependent on other data and that item is not updated when the other data is changed, what has the value become? **Answer:** B. Stale.
5. A constructor that accepts arguments is known as a(n) \_\_\_\_\_.

**Answer:** C. Parameterized constructor.

1. When a method is \_\_\_\_\_, it means that multiple methods in the same class have the same name but use different types of parameters. **Answer:** D. Overloaded.
2. The process of matching a method call with the correct method is known as \_\_\_\_\_.

**Answer:** D. Binding.

1. A method’s \_\_\_\_\_ consists of the method’s name and the data type and argument kind (by value, ref, or out) of the method’s parameters, from left to right. **Answer:** B. Signature.
2. A \_\_\_\_\_ is a constructor that accepts no arguments. **Answer:** A. Parameterless constructor.
3. If you write a class with no constructor whatsoever, the compiler will provide a(n) \_\_\_\_\_. **Answer:** A. Default constructor.
4. The \_\_\_\_\_ is the set of real-world objects, parties, and major events related to the problem. **Answer:** B. Problem domain.
5. A class’s responsibilities are \_\_\_\_\_. **Answer:** D. Both B and C (“B” being “things the class knows”, and “C” being “actions the class performs”)
6. The \_\_\_\_\_ displays a form on the screen, and it gives that form the focus.

**Answer:** B. ShowDialog method.

**True or False**

1. Objects that are instances of a class are always passed by value. **Answer:** False.
2. Class declarations must be written inside the project namespace. **Answer:** False.
3. A class is an object. **Answer:** False.
4. It is a common practice to make all a class’s fields private and to provide access to those fields through methods. **Answer:** True.
5. The same rules for naming variables apply to naming classes. **Answer:** True.
6. If you need to make a property read only, you simply do not write a set accessor for the property. **Answer:** True.
7. If you try to pass a property to a ref or an out parameter, an error will occur. **Answer:** True.
8. Class fields are almost always declared public in order to make their values easily accessible to code outside of the class. **Answer:** False.
9. The get accessor can be thought of as a method that returns the class property’s value.

**Answer:** True.

1. Constructors can accept arguments in the same way as other methods. **Answer:** True.
2. It is legal to write a class without any constructors. **Answer:** True.
3. Objects that are instances of a class can be stored in an array. **Answer:** True.
4. The objects of a class can be stored in an array, but not in a List. **Answer:** False.
5. One way to find the classes needed for an object-oriented program is to identify all the verbs in a description of the problem domain. **Answer:** False.
6. Every form in a Visual C# project has a class. **Answer:** True.
7. By default, a control’s Modifiers property is set to Public. **Answer:** False.