Started on	Sunday, 1 October 2023, 5:18 PM
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Question 1

Correct

Marked out of 1.00

Which of the following statements about the principle of polymorphism is/are correct?

- a. One common use of polymorphism in OOP occurs when a parent class reference is used to refer to a child class object ✔
- b. Polymorphism indicates that program code can be executed on several target platforms
- c. Polymorphism allows for objects of different types and behaviors to be treated as the same general type ✔
- d. Polymorphism indicates that several variables of a class can have the same name
- e. A program that uses the principle of polymorphism will usually be easier to maintain and update ✔
- f. Method overriding is one of the key concepts of polymorphism ✔
- g. Polymorphism indicates that program code needs to be complied repeatedly for each platform
- h. Polymorphism indicates that dependent of the subtype the original or the overridden method is chosen ✔

Question 2

Partially correct

Marked out of 1.00

Which of the following are (advanced) concepts of OOP?

- a. Delegates ✔
- b. Iterations
- c. Namespaces ✔
- d. Generics ✔
- e. Sequences
- f. Getter and Setter methods ✔
- g. Recursions
- h. Subroutines

Question 3

Correct

Marked out of 1.00

Which of the following statements about abstract classes is/are correct?

- a. In order to forbid further inheritance in C#, a class needs to be defined as "concrete"
- b. When a class is defined as abstract it is not allowed to create an instance of this class ✔
- c. A (concrete) child-class that inherits from an abstract class needs to implement the abstract methods of the base-class ✔
- d. All methods of an abstract class need to be defined as abstract
- e. In order to forbid further inheritance in C#, a class needs to be defined as "sealed" ✔
- f. A class needs to be abstract if at least one member is defined as abstract ✔

Question 4

Correct

Marked out of 1.00

Which of the following statements about the principle of encapsulation is/are correct?

- a. The public interface of a class (published to its users) should vary dynamically depending on the use-case
- b. Encapsulation allows for all member variables and methods of a class to be accessed from outside
- c. Member variables cannot be set directly from outside the class ✔
- d. The users of the class are responsible for protecting data integrity and consistency
- e. Member variables can be read and overwritten from outside the class
- f. The public interface of a class (published to its users) should be kept constant ✔
- g. The class itself is responsible for protecting data integrity and consistency ✔

Question 5

Correct

Marked out of 1.00

Which of the following statements about classes and objects is/are correct?

- a. A class defines the common attributes and properties of objects ✔
- b. An object whose state cannot be modified after it has been created is called immutable ✔
- c. An object is an instance of a class with a given identity ✔
- d. A class is a blue-print to instantiate objects ✔
- e. A class defines the type and the values of the common attributes of objects
- f. A class whose state cannot be modified after it has been created is called mutable