Question 4: True or False

1. JavaScript is synchronous, blocking, single-threaded language.

- Answer: False

- Explanation:JavaScript is single-threaded and synchronous by default, meaning it executes one task at a time in order. However, it is non-blocking due to its event loop and asynchronous capabilities, which allow it to handle multiple operations concurrently without waiting for each to complete before moving on.

2. With interpolation, Angular converts the expression results to strings.

- Answer: True

- Explanation: In Angular, interpolation is used to bind data from the component to the HTML template. It converts the results of the expression within the double curly braces (`{{ expression }}`) to strings and embeds them in the HTML.

3. JavaScript provides a parameterless constructor for each class.

- Answer: False

- Explanation: JavaScript does not automatically provide a parameterless constructor for each class. Constructors must be explicitly defined in JavaScript classes. If no constructor is defined, JavaScript creates a default constructor that is empty.

4. A method inside an abstract class must be declared abstract.

- Answer: False

- Explanation: In abstract classes, not all methods need to be declared abstract. Abstract classes can have both abstract methods (which must be implemented by subclasses) and concrete methods (which have an implementation within the abstract class).

5. wo formal parameters for the same method may use the same name in JavaScript.

- Answer: False

- Explanation: In JavaScript, each parameter in a method must have a unique name. Using the same name for multiple parameters within the same method is not allowed and will result in a syntax error.

6. A class may extend only one other class and implement only one interface.

- Answer: False

- Explanation: In TypeScript (and JavaScript with TypeScript syntax), a class can extend only one other class (single inheritance) but can implement multiple interfaces. This allows for the benefits of multiple interfaces while maintaining a clear class hierarchy.

7. If class A extends class B, class A is a subclass of B and B is a superclass of A.

- Answer: True

- Explanation: When class A extends class B, it means that class A inherits the properties and methods of class B. Therefore, class A is the subclass (or derived class) of class B, and class B is the superclass (or base class) of class A.

8. Encapsulation is the concept of object-oriented programming that "shows" only essential attributes and "hides" unnecessary information.

- Answer: False

- Explanation: The concept described is Abstraction, not Encapsulation. Encapsulation is the concept of bundling data and methods that operate on the data within a single unit (such as a class) and restricting access to some of the object's components, making them private and only accessible through public methods.

9. Elements that have higher z-index values are displayed in front of elements with lower z-index values.

- Answer: True

- Explanation:The `z-index` property in CSS controls the vertical stacking order of elements that overlap. Elements with higher `z-index` values are displayed in front of those with lower `z-index` values, determining which elements appear on top.

10. Enums or enumerations are a TypeScript data type that allows us to define a set of named constants.

- Answer: True

- Explanation: In TypeScript, enums (short for enumerations) are a data type that allows the definition of a set of named constants. Enums are useful for representing a collection of related values, making the code more readable and maintainable.