**Chapter 1 Advanced JavaScript Techniques**

**Questions and Answers**

**Direct Questions**

1. What is Difference between var,let and const?

var: Global scope

let: Local scope

const: Local scope

1. What is JavaScript function/What is function?

A JavaScript function is a block of code designed to perform a particular task.

1. What is Arrow Functions?

Arrow functions introduced in ES6, provides a concise way to write functions in JavaScript and handy for simple actions, especially for one-liners.

1. Arrow functions come in two flavors what are they?

They are

* Without curly braces: (...args) => expression – the right side is an expression
* With curly braces: (...args) => { body } – brackets allow us to write multiple statements inside the function

1. What are the Core Advantages of Arrow Functions?
   * Reduces code size
   * Return statement is optional for single line function
   * Functional braces are optional for single line statement
   * Lexically bind the context
2. What is default parameter values?

A default value is a value that will always be available.

1. Define Callback Function?

A callback Function is a function passed into another function as an argument

1. What is the main importance of a callback function?

The main importance of a callback function is to execute a code in response to an event in a program.

1. Define Rest Parameter?

The Rest Parameter is an improved way to handle function parameters

1. What is class in JavaScript?/What is class?

A class in Javascript is basically a blueprint or template of the object.

1. What is the class syntax?/What is the class syntax has?

The class syntax has two components: class expressions and class declarations.

1. What is the constructor?

The constructor is a special method for creating and initializing an object created with a class.

1. What is Objects in JavaScript? / What is Objects?

Objects, in JavaScript, are the most important data type and form the building blocks for modern JavaScript

1. What is Destructuring Assignment?

Take one definition

* Destructuring Assignment is a JavaScript expression that allows to unpack values from arrays, or properties from objects, into distinct variables data can be extracted from arrays, objects, nested objects and assigning to variables
* In Destructuring defined that which value should be unpacked from the sourced variable.

1. What is Template Literals?

Template Literal in ES6 provides new features to create a string that gives more control over dynamic strings.

1. What is JSON?

* JSON or JavaScript Object Notation is a format for structuring data.
* It is a standard text-based format for representing structured data based on JavaScript object syntax

1. What JSON use?

Take one

* It is commonly used for transmitting data in web applications (e.g., sending some data from the server to the client, so it can be displayed on a web page).
* A common use of JSON is to exchange data to/from a web server.

1. Why JSON?
2. The JSON format is syntactically similar to the code for creating JavaScript objects. Because of this, a JavaScript program can easily convert JSON data into JavaScript objects.
3. What JSON.parse()?

Use the JavaScript function JSON.parse() to convert text into a JavaScript object.

1. What JSON.stringify()?

Use the JavaScript function JSON.stringify() to convert it into a string.

1. What are Characteristics of JSON?

* It is **Human-readable and writable**.
* It is **light weight text based data interchange format** which means, it is simpler to read and write when compared to XML.
* It is widely used as **data storage and communication format** on the web.
* Though it is derived from a subset of JavaScript, yet it is **Language independent**.

1. What are JSON Syntax Rules?

* Data has to be in key/value pairs, separated by a colon.
* Data pairs have to be separated by a comma.
* The value can be any primitive data type but never a function.
* Objects are written inside curly brackets.
* Arrays are written inside square brackets.

**True and False**

1. ECMAScript is the standardization of JavaScript which was released in 2015, and subsequently renamed as ECMAScript 2015 (T)
2. ECMAScript and JavaScript are both different in nature. (T)
3. In the ES6 version, there were introduced to const and let keywords which allows us to store variables (T)
4. let and const both have their own way of storing variables. (T)
5. A function is executed when "something" invokes it (calls it). (T)
6. Invoke means call (T)
7. In JavaScript function is defined with the function keyword, followed by a name, followed by parentheses (). (T)
8. Function names can contain letters, digits, underscores, and dollar signs (same rules as variables). (T)
9. Arrow functions introduced in ES6 (T)
10. The event can be a simple answer to an input prompt or just a mouse click. (T)
11. Using rest parameter a function can be called with any number of arguments (T)
12. The new version of JavaScript (ES6) introduced the use of classes instead of functions.(T)
13. New objects can be created from a class (T)
14. Classes are in fact "special functions" (T)
15. Constructor can only be one special method with the name "constructor" in a class. (T)
16. A SyntaxError will be thrown if the class contains more than one occurrence of a constructor method. (T)
17. Classes are similar to functions (T)
18. classes in JavaScript are not hoisted (T)
19. The class name is user-defined. (T)
20. Template literal is created using the backtick (`) character. (T)
21. Traditionally, String is created using single quotes (‘) or double quotes (“) quotes. (T)
22. JSON exists as a string — useful when you want to transmit data across a network. (T)
23. JSON needs to be converted to a native JavaScript object when you want to access the data (T)